

**DRAFT ENVIRONMENTAL IMPACT REPORT**

**STATION EAST RESIDENTIAL/  
MIXED USE PROJECT**

**STATE CLEARINGHOUSE No. 2020039032**

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## Acronyms and Abbreviations

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AAI	All Appropriate Inquires
AB	Assembly Bill
AB 939	California Integrated Waste Management Act of 1989
ABAG	Association of Bay Area Governments
AC Transit	Alameda-Contra Costa Transit District
ACFD	Alameda County Fire Department
ACM	asbestos containing materials
ACP	asbestos cement pipe
ACWD	Alameda County Water District
ADA	Americans with Disabilities Act
ADT	average daily traffic
Alameda County Flood Control District	Alameda County Flood Control and Water Conservation District
APNs	assessor's parcel numbers
ATP	Alvarado Treatment Plant
BAAQMD	Bay Area Air Quality Management District
BART	Bay Area Rapid Transit
bgs	below ground surface
BMPs	best management practices
BTU	British thermal unit
C&D	construction and demolition
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFÉ	Corporate Average Fuel Economy Standards
cal	calibrated
CAL FIRE	California Department of Forestry and Fire Protection
Cal/OSHA	California Division of Occupational Safety and Health
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CALGreen	California Green Building Standards Code
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CARB	California Air Resources Board
Carl Moyer Program	Carl Moyer Memorial Air Quality Standards Attainment Program
CBIA v. BAAQMD	<i>California Building Industry Association v. Bay Area Air Quality</i>

	<i>Management District</i>
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEMP	Comprehensive Emergency Management Plan
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESA	California Endangered Species Act
CF	Civic Facility
CFR	Code of Federal Regulations
cfs	cubic feet per second
CH <sub>4</sub>	methane
City	City of Union City
CNDDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNPPA	California Native Plant Protection Act
CNPS	California Native Plant Society
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
CO <sub>2</sub> e	carbon dioxide equivalent
COCs	constituents of concern
Construction General Permit	NPDES General Permit for Construction Activities
Corpyard	City's Corporation Yard
county	Alameda County
CPT	Cone Penetration Test
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CTC	County Transportation Commission
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
cy	cubic yards
dB	decibel
dBA	A-weighted decibel
DCA	dichloroacetic acid
DIPSA	Decoto Industrial Park Study Area
DOT	U.S. Department of Transportation

DPM	diesel particulate matter
DPR	Department of Parks and Recreation
DTSC	Department of Toxic Substances Control
EBCE	East Bay Community Energy
EDA	Economic Development Administration
EDR	Environmental Data Resources
EIR	Environmental Impact Report
EO	Executive Order
EOP	Emergency Operations Plan
EPA	U.S. Environmental Protection Agency
ESLs	Environmental Screening Levels
EVA	Emergency Vehicle Access
FAR	floor area ratio
Farmland	Prime Farmland, Unique Farmland, or Farmland of Statewide Importance
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
g/L	grams per liter
GCASP	General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities
general plan	City of Union City 2040 General Plan
General Plan EIR	2040 Union City General Plan Update Environmental Impact Report
GHG	greenhouse gas
GSP	Groundwater Sustainability Plan
GWP	global warming potential
HCP	habitat conservation plan
HFCs	hydrofluorocarbons
HI	hazard index
HM	hydromodification management
Hot Spots Act	Air Toxics “Hot Spots” Information and Assessment Act of 1987
HRA	health risk assessment
HUD	U.S. Department Housing and Urban Development
HVAC	heating, ventilation, and air-conditioning
I-880	Interstate 880
IPaC	Information for Planning and Conservation
IPCC	Intergovernmental Panel on Climate Change
IRP	2018 Integrated Resource Plan
ITE	Institute of Transportation Engineers
IWMA	Integrated Waste Management Act

kW	kilowatt
kWh	kilowatt hour
LCFS	low-carbon fuel standard
L <sub>dn</sub>	day-night sound level
L <sub>eq</sub>	equivalent sound level
LHP	Landmarks and Historic Preservation
LID	low-impact development
LINEAREA	line/area source
L <sub>max</sub>	maximum sound level
L <sub>min</sub>	minimum sound level
LOS	level of service
L <sub>xx</sub>	percentile-exceeded sound level
MBTA	Migratory Bird Treaty Act
MERV	Minimum Efficiency Reporting Value
mgd	million gallons per day
MM	moment magnitude
mpg	miles per gallon
mph	miles per hour
MPO	Metropolitan Planning Organizations
MRP	Municipal Regional Permit
MRZ	Mineral Resource Zone
MS4s	municipal separate storm sewer systems
MSJWTP	Mission San Jose Water Treatment Plant
msl	mean sea level
MT	metric ton
MTC	Metropolitan Transportation Commission
N <sub>2</sub> O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
Natural Communities List	List of Vegetation Alliances and Associations
NCCP	natural community conservation plan
NCP	National Contingency Plan
NDC	Nationally Determined Contribution
NDF	Newark Desalination Facility
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NHPA	National Historic Preservation Act
NHTSA	National Highway Traffic Safety Administrative
NHUSD	New Haven Unified School District

NMFS	National Marine Fisheries Service
NO	nitric oxide
NO <sub>2</sub>	nitrogen dioxide
NOC	Notice of Completion
NOD	Notice of Determination
NOI	Notice of Intent
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
NWIC	Northwest Information Center
OCPs	organochlorine pesticides
OEHHA	Office of Environmental Health Hazard Assessment
OHP	Office of Historic Preservation
OPR	Office of Planning and Research
OS	Open Space
OSHA	Occupational Safety and Health Administration's
PA	planning area
PAHs	polycyclic aromatic hydrocarbons
PCBs	polychlorinated biphenyls
PCE	perchloroethylene
PDA	Priority Development Area
PFCs	perfluorocarbons
PG&E	Pacific Gas and Electric
Phase I ESA	Phase I Environmental Site Assessment
PI	Private Institutional
PM	particulate matter
PM10	particulate matter no more than 10 microns in diameter
PM2.5	particulate matter no more than 2.5 microns in diameter
PMMP	Paleontological Mitigation and Monitoring Program
POINT	vertical point source
PPV	peak particle velocity
PRC	Public Resources Code
project	Station East Residential/Mixed Use Project
Qhaf	Holocene
Qhb	basin fill deposits
Qo	older Quaternary alluvium

Qpaf	Pleistocene
RCEM	Roadway Construction Emissions Model
RCNM	Roadway Construction Noise Model
RCRA	Resource Conservation and Recovery Act of 1976
RDC	Research and Development Campus
RECs	recognized environmental conditions
RHNA	Regional Housing Needs Allocation
RPS	Renewables Portfolio Standard
RSL	regional screening level
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SAFE	Safer Affordable Fuel-Efficient
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SCS	Sustainable Communities Strategy
SCSMU	Station Mixed-use Commercial
SEMU	Station East Mixed Use
sf	square feet
SF <sub>6</sub>	sulfur hexafluoride
SFBAAB	San Francisco Bay Area Air Basin
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SJVAPCD	San Joaquin Valley Air Pollution Control District
SLCP Reduction Strategy	Short-Lived Climate Pollutant Reduction Strategy
SLF	Sacred Lands File
SMP	Site Management Plan
SO <sub>2</sub>	sulfur dioxide
SPRR	Southern Pacific Railroad
SR	State Route
SSMP	Sewer System Management Plan
SSO	sanitary sewer overflow
SVP	Society of Vertebrate Paleontology
SWP	State Water Project
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TACs	toxic air contaminants
Tanner Act	Toxic Air Contaminant Identification and Control Act
TCA	trichloroethane

TCE	trichloroethylene
TDM	transportation demand management
TIP	Transportation Improvement Program
TNM	Traffic Noise Model
TPA	Transit Priority Area
TPH	total petroleum hydrocarbon
UC Transit	Union City Transit
UCPD	Union City Police Department
Under2 MOU	Global Climate Leadership Memorandum of Understanding
UPRR	Union Pacific Railroad
USACE	U.S. Army Corps of Engineers
USC	United States Code
USD	Union Sanitary District
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UST	underground storage tank
UWMP	Urban Water Management Plan
VegCAMP	Vegetation Classification and Mapping Program
VHFHSZ	Very High Fire Hazard Severity Zone
VMT	vehicle miles traveled
VOCs	volatile organic compounds
WBWG	Western Bat Working Group
WDRs	waste discharge requirements
WSA	Water Supply Assessment
WTP2	Water Treatment Plant No. 2
$\mu\text{g}/\text{m}^3$	micrograms per cubic meter



## 1.1 Introduction and Project Overview

This report, and its appendices, comprise the Draft Environmental Impact Report (EIR) for the Station East Residential/Mixed-Use Project (project), located between 7<sup>th</sup> Street and the Niles subdivision Union Pacific Railroad (UPRR) tracks in the City of Union City (City), Alameda County, California on six parcels (assessor's parcel numbers [APNs] 87-21-5-2, 87-21-13-1, 87-21-31-2, 87-23-12, 87-23-10, and 87-23-13-2). The Lead Agency is the City of Union City.

The 26.5-acre project site consists of vacant and industrial land uses, including approximately 95 parking spaces, and is bounded by Decoto Road to the north, 7<sup>th</sup> Street to the east, Bradford Way and several industrial uses to the south, and the Niles subdivision UPRR tracks along the western perimeter. Of the 26.5 acres, 2.0 acres consist of existing and vacant industrial uses; 6.4 acres consists of surface parking lots, asphalt, or concrete storage lots, a roadway, and railroad spur improvements; 12.3 acres consist of agricultural areas; 2.0 acres consists of annual grassland; 1.1 acres consists of landscaped areas; and 2.7 acres consist of ruderal areas. The project site is currently designated as Station East Mixed Use (SEMU) under the General Plan, and zoned as Research and Development Campus (RDC). In addition, the project site is part of the *Decoto Industrial Park Study Area (DIPSA) Specific Plan* area, specifically, within the 105-acre Station East subarea of the DIPSA Specific Plan, within 1, 2a, 2b, and 3 Station East subareas.

The project proposes the demolition of the buildings and surface parking lots and development of up to approximately 1.8 million sf, including up to 974 new residential units (apartments, condominiums, and townhome-style condominiums, referred to in this report as townhomes) and approximately 30,800 sf of commercial space.<sup>1</sup> The project site would include 11 planning areas (PAs) with 33 residential buildings and one community building. Most of the 34 proposed buildings would be between three and five stories tall. Vehicular access to the project site would be via Decoto Road on the north side of the project site, 7<sup>th</sup> Street on the east side of the project site, and Bradford Way and

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<sup>1</sup> The applicant indicated that the residential units associated with proposed project would increase by 10, from 964 to 974 units. Section 4, *Environmental Impact Analysis*, analyzes 964 residential units despite Chapter 3, *Project Description*, reflecting the current proposal of 974 residential units. The increase of 10 residential units would not result in any changes to the environmental analysis, including impact conclusions and mitigation measures, primarily because the overall duration of construction, construction schedule, construction intensity, and building footprint all would remain the same. In addition, assumptions used in the analysis of operational-related impacts are conservative enough to account for the 10 additional units. Specifically, with respect to impacts resulting from population growth (such as Population and Housing, Public Services, or Utilities), the 10 additional units and associated growth are within the General Plan and ABAG projections. The additional 26 residents<sup>1</sup> conservatively expected to result from the addition of 10 units would not change the severity of the impact conclusions for these topics, many of which are not directly contingent upon population growth of 2,445 residents and 75 employees, and mitigated instead through the payment of various developer impact fees. With respect to water supply, the Alameda County Water District has confirmed the increase in units would not result in any changes to the conclusions in the Water Supply Assessment prepared for the project (**Appendix 4.15-1**). Similarly, the vehicle trip generation for the project is substantially conservative to cover the 10 additional units as it assumes 1,150 multi-family dwelling units. Thus, the analysis presented throughout this EIR adequately accounts for the potential environmental impacts of the 974 new residential units.

Zwissig Way on the south side of the project site. One linear paseo (Paseo C) would extend through the southern portion of the project site in the east–west direction. Three community parks, one tot lot, and one outdoor amphitheater would be located throughout the project site. In addition, urban plazas would be located near the proposed commercial uses in PA 1. Pedestrian, bicycle, and vehicular access would be provided throughout the project site. The proposed project would include approximately 1,791 parking spaces for vehicles (includes on- and off-street parking) and 458 parking spaces for bicycles, both long term (i.e., bike storage facilities) and short term (i.e., bicycle racks), and other vehicle, pedestrian, and bicyclist improvements, which are described in more detail in Chapter 3, *Project Description*. Construction of the proposed project would begin in mid-2021 and occur in two phases over approximately 4.5 years, with anticipated completion in late 2025.

The applicant is requesting site development review, a General Plan amendment, zoning map/text amendments, and a development agreement, among other project approvals and discretionary actions to enable the redevelopment of the project site, as detailed in Chapter 3.

## 1.2 Summary of Conclusions

Table 1-1, Summary of Project Impacts and Mitigation Measures, beginning on page 1-4, provides an overview of the following:

- Environmental impacts with the potential to occur as a result of the proposed project;
- Mitigation measures that would avoid or minimize environmental impacts, if applicable;
- The level of significance for each impact after the mitigation measures are implemented, if applicable.

Refer to Chapter 4, *Environmental Impact Analysis*, for detailed discussions on project impacts and associated mitigation measures.

### 1.2.1 Significant and Unavoidable Impacts

No impacts have been identified as significant and unavoidable.

### 1.2.2 Potentially Significant Impacts and Mitigation Measures

The majority of the potentially significant impacts associated with the proposed project are due to construction activities, which are temporary and limited in nature. These include the following impacts: a cumulatively considerable net increase of any criteria pollutant, special-status species and associated habitat and migratory activity/routes, conflicts with local policies or ordinances protecting biological resources, undocumented human remains or archaeological resources, energy consumption, greenhouse gas emissions generation, the release, emissions, and handling of hazardous materials, increase in ambient noise, and listed tribal cultural resources.

The remainder of the potentially significant impacts are associated with project operation. These include impacts related to a cumulatively considerable net increase of any criteria pollutant, exposure of sensitive receptors to substantial pollutant concentrations, energy consumption, and increase in ambient noise.

The potentially significant construction and operation impacts would be reduced to less-than-significant levels through implementation of identified mitigation measures.

## 1.2.3 Alternatives

CEQA Guidelines Section 15126.6 requires an EIR to evaluate the No Project Alternative and a range of reasonable alternatives to the proposed project that would feasibly attain most of the project's basic objectives, but that would also avoid or substantially reduce any identified significant environmental impacts of the project. Three alternatives to the proposed project were evaluated in this EIR, including:

- **Alternative A—No Project Alternative:** The No Project Alternative is based on what would reasonably be expected to occur on the project site if the proposed project is not approved, in accordance with CEQA Guidelines Section 15126.6(e). Alternative A assumes that the site would remain in its existing condition, a vacant site with industrial uses (2.0 acres); surface parking lots, asphalt or concrete storage lots, a roadway, and railroad spur improvements (6.4 acres); and vacant unpaved areas, including agricultural, annual grassland, landscaped, and ruderal areas (18.1 acres).
- **Alternative B—Increased Office Alternative:** The Increased Office Alternative would remove the residential component from the project and replace it with office development. Alternative B would include 1,092,025 sf of office development and 30,770 sf of commercial space, compared with no office space under the proposed project.
- **Alternative C—Reduced Intensity Alternative:** The Reduced Intensity Alternative would have a 25 percent reduction in all land uses compared with the proposed project. Alternative C would still include 11 planning areas and 34 buildings, but most of the buildings would be between two and four stories tall.

The CEQA Guidelines require identification of an environmentally superior alternative (Section 15126.6[e]), which is the alternative that best avoids or lessens significant impacts of the proposed project, even if the alternative would, to some degree, impede attainment of the project objectives. Alternative A, the No Project Alternative, would be the environmentally superior alternative because it would result in fewer impacts overall. However, because Alternative A would not fulfill any of the project objectives and is required to be included in the EIR by CEQA, another alternative must be identified as the environmentally superior alternative.

Alternative B would reduce the project's impacts to the greatest degree by constructing an office development instead of a residential development, which would result in the greatest decrease in operational impacts due to the lower trip generation. Therefore, Alternative B would be the environmentally superior alternative.

**Table 1-1. Summary of Project Impacts and Mitigation Measures**

Impacts	Mitigation Measures	Resulting Level of Significance
<b>Less-than-Significant Impacts after Mitigation</b>		
<p><b>Impact AQ-2a:</b> The proposed project could result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or State ambient air quality standard during construction.</p>	<p><b>Mitigation Measure AQ-2a: Require Low-VOC Coatings During Construction</b>                      The project applicant shall require their contractors, as a condition of contract, to reduce construction-related fugitive ROG emissions by ensuring that low-VOC coatings that have a VOC content of 10 grams/liter (g/L) or less are used during construction. Prior to permit issuance, the project applicant shall submit evidence to the City regarding the use of low-VOC coatings to the City.</p> <p><b>Mitigation Measure AQ-2b: Use Clean Diesel-Powered Equipment During Construction to Control Construction-Related Emissions</b>                      The project applicant shall ensure that all off-road diesel-powered equipment used during construction is equipped with EPA-approved Tier 4 Final engines. Prior to permit issuance, the project applicant, in coordination with the construction contractor, shall submit evidence to the City regarding the use of EPA-approved Tier 4 Final engines or cleaner for project construction.</p> <p><b>Mitigation Measure AQ-2c: Require Use of Diesel Trucks with 2010-Compliant Model Year Engines</b>                      The project applicant shall ensure that contractors, as a condition of contract, to use diesel trucks that have 2010 model year or newer engines, but no less than the average fleet mix for the current calendar year as set forth in the CARB’s EMFAC2017 model database. In the event that 2010 model year or newer diesel trucks cannot be obtained, the project applicant, in coordination with the construction contractor, must provide documentation to the City showing that a good faith effort to locate such engines was conducted, such as outreach to at least two vendors. Prior to permit issuance, the project applicant shall submit evidence compliance with this mitigation measure to the City.</p> <p><b>Mitigation Measure AQ-2d: Implement BAAQMD Basic Construction Mitigation Measures</b>                      The project applicant shall require all construction contractors to implement the basic construction mitigation measures recommended by BAAQMD. The emissions reduction measures shall include, at a minimum, all of the following: Prior to permit issuance, the project applicant shall provide documentation that these basic construction measures are reflected in all construction contracts.</p>	<p>LTSM</p>

Impacts	Mitigation Measures	Resulting Level of Significance
<p><b>Impact AQ-2b:</b> The proposed project could result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or State ambient air quality standard during concurrent construction and operation.</p>	<ul style="list-style-type: none"> <li>● All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, unpaved access roads) will be watered two times a day.</li> <li>● All haul trucks will be covered when transporting soil, sand, or other loose material offsite.</li> <li>● All visible mud or dirt track-out material on adjacent public roads will be removed using wet-power vacuum-type street sweepers at least once a day. The use of dry-power sweeping is prohibited.</li> <li>● All vehicle speeds will be limited to 15 miles per hour on unpaved roads.</li> <li>● All roadways, driveways, and sidewalks that are to be paved will be paved as soon as possible. Building pads will be laid as soon as possible after grading, unless seeding or a soil binder is used.</li> <li>● All construction equipment will be maintained and properly tuned in accordance with manufacturers' specifications. All equipment will be checked by a certified visible-emissions evaluator.</li> <li>● Idling times will be minimized, either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure).</li> <li>● Publicly visible signs will be posted with the telephone number and name of the person to contact at the lead agency regarding dust complaints. This person will respond and take corrective action within 48 hours. BAAQMD's phone number will also be visible to ensure compliance with applicable regulations.</li> </ul> <p>Implement <b>Mitigation Measures AQ-2a, AQ-2b, AQ-2c, and AQ-2d</b>, described above.</p> <p><b>Mitigation Measure AQ-2e: Require Low-VOC Coatings during Operation</b> The project applicant shall require their contractors, as a condition of contract, to reduce operation-related fugitive ROG emissions by ensuring that low-VOC coatings that have a VOC content of 10 grams/liter (g/L) or less are used during operation. Prior to the completion of construction, the project applicant shall submit evidence to the City documenting the use of low-VOC coatings.</p> <p><b>Mitigation Measure AQ-2f: Require Use of Green Consumer Products during Operation</b> The project applicant shall provide education for residential and commercial tenants concerning green consumer products. Prior to receipt of any certificate of final occupancy, the project applicant shall work with the City of Union City</p>	<p>LTSM</p>

Impacts	Mitigation Measures	Resulting Level of Significance
<p><b>Impact AQ-2c:</b> The proposed project could result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or State ambient air quality standard during operation.</p>	<p>to develop electronic correspondence to be distributed by email to new residential and commercial tenants that require the purchase of consumer products that generate lower than typical VOC emissions. Examples of green products may include low-VOC cleaning supplies and consumer products.</p> <p>Implement <b>Mitigation Measures AQ-2a, AQ-2b, AQ-2e, and AQ-2f</b>, described above.</p> <p><b>Mitigation Measure AQ-2g: Purchase of Mitigation Credits for Emissions Exceeding BAAQMD's Daily Pollutant Thresholds</b></p> <p>The project applicant shall provide annual operational emissions estimates to the City for review prior to receipt of any certificate of final occupancy of new buildings. Average annual emissions shall be forecasted for each operational year over the life of the project (30 years). Emissions shall be calculated using BAAQMD-accepted emissions model and project-specific land use and design features. Should the proposed development not result in operational emissions exceeding BAAQMD's daily pollutant thresholds, the project would result in less-than-significant air quality impacts during operation and no further action would be required.</p> <p>If it is shown that the project would result in exceedances of thresholds during any year of the project's life, the project applicant shall pay a mitigation offset fee pursuant to BAAQMD's emission reduction credit or interchangeable emission credit program, in an amount to be determined prior to the first year of exceedance over the life of the project (30 years). All fees for such credits shall be paid by the project applicant prior to the receipt of any certificate of final occupancy. If, at the time of the certificate of occupancy for the final building is issued, the project applicant demonstrates there are no exceedances, no further action shall be required.</p>	LTSM
<p><b>Impact AQ-3:</b> The project could expose sensitive receptors to substantial pollutant concentrations.</p>	<p>Implement <b>Mitigation Measures AQ-2a through 2g</b>, described above.</p>	LTSM
<p><b>Impact C-AQ-1:</b> The proposed project, in combination with past, present, and reasonably foreseeable future projects, could result in a significant cumulative impact on air quality.</p>	<p>Implement <b>Mitigation Measures AQ-2a through 2g</b>, described above.</p>	LTSM

Impacts	Mitigation Measures	Resulting Level of Significance
<p><b>Impact BIO-1:</b> The project could have a substantial adverse effect, either directly or through habitat modifications, on any species identified as candidate, sensitive, or special-status species in local or regional plans, policies, or regulations by CDFW.</p>	<p><b>Mitigation Measure BIO-1a: Burrowing Owl Protection</b></p> <p>The project applicant shall implement the following measures prior to any construction activities:</p> <ul style="list-style-type: none"> <li>• If construction activities occur between April and August, the project applicant shall retain a qualified biologist* to conduct preconstruction surveys for burrowing owl 14 days prior to and within 24 hours of the start of construction activities.</li> <li>• If an active burrow is identified, an appropriate no-disturbance buffer zone shall be established that extends a minimum of 250 feet around the burrow, and construction activities shall be prohibited within this zone during the nesting season (April through July).</li> <li>• Buffers may be modified based on the opinion of the biological monitor and in coordination with CDFW taking into consideration site specific conditions (e.g., line of sight to activities, specific activities taking place).</li> <li>• Representatives of the CDFW shall be consulted to determine whether the nest burrow should be protected and a permanent buffer established or whether the nest site may be destroyed once the young have fled. Construction activities within the buffer zone shall not proceed until the qualified biologist has determined that the owls have fled and the nest can be destroyed or a CDFW-approved relocation plan is successfully implemented.</li> </ul> <p>* The experience requirements for a “qualified biologist” shall include a minimum of 4 years of academic training and professional experience in biological sciences and related resource management activities, and a minimum of 2 years of experience conducting surveys for each species that may be present within the project area.</p> <p><b>Mitigation Measure BIO-1b: Bat Protection</b></p> <p>The project applicant shall implement the following measures prior to any construction activities:</p> <ul style="list-style-type: none"> <li>• The project applicant shall retain a qualified biologist to conduct preconstruction surveys and implement protective measures for hoary bat, pallid bat, Townsend’s big-eared bat, and other roosting bats. At least 2 months prior to the demolition of the existing buildings and structures, a qualified biologist shall conduct an initial daytime survey to assess the building for potential bat roosting habitat, and to look for bats and bat sign. Qualified biologists shall have knowledge of the natural history of the species</li> </ul>	<p>LTSM</p>

Impacts	Mitigation Measures	Resulting Level of Significance
	<p>that could occur and sufficient experience determining bat occupancy and bat survey techniques. The qualified biologist shall examine both the inside and outside of the building and structures for potential roosting habitat, as well as routes of entry to the building and structures. Locations of any roosting bats, signs of bat use, and entry and exit points shall be noted and mapped on a drawing of the buildings and structures. Roost sites shall also be photographed as feasible. Depending on the results of the habitat assessment, the following steps will be taken as described below.</p> <ul style="list-style-type: none"> <li>● If the building and structures can be adequately assessed (i.e., all areas of the building and structures can be examined) and no habitat or limited habitat for roosting bats is present and no signs of bat use are present, a preconstruction survey of the interior and exterior of the buildings and structures by a qualified biologist shall be conducted within 24 hours of demolition.</li> <li>● If moderate or high potential habitat is present but there are no signs of bat use, the project applicant shall implement measures under the guidance of a qualified biologist to exclude bats from using the buildings and structures as a roost site, such as sealing off entry points. Prior to installing exclusion measures, a qualified biologist shall re-survey the buildings and structures to ensure that no bats are present. Additionally, a preconstruction survey of the interior and exterior of the building and structures shall be conducted within 24 hours of demolition to confirm that no bats are present.</li> <li>● If moderate or high potential habitat is present and bats or bat sign are observed, or if exclusion measures are not installed as described above, or the buildings and structures provides suitable habitat but could not be adequately assessed, the following protective measures shall be implemented.                         <ul style="list-style-type: none"> <li>○ Follow-up surveys shall be conducted to determine if bats are still present. If species identification is required by the California Department of Fish and Wildlife (CDFW), surveys using night vision goggles and active acoustic monitoring using full spectrum bat detectors shall be used. A survey plan (number, timing, and type of surveys) shall be determined in coordination with CDFW.</li> <li>○ Based on the timing of demolition, the extent of bat sign or occupied habitat, and the species present (if determined), the qualified biologists shall work with the City and CDFW to develop a plan to</li> </ul> </li> </ul>	



Impacts	Mitigation Measures	Resulting Level of Significance
	<p>discourage or exclude bat use prior to demolition. The plan may include installing exclusion measures or using light or other means to deter bats from using the buildings and structures to roost.</p> <ul style="list-style-type: none"> <li>○ A preconstruction survey of the interior and exterior of the buildings and structures shall be conducted within 24 hours of demolition.</li> <li>● Depending on the species of bats present, size of the bat roost, and timing of the demolition, additional protective measures may be necessary. Appropriate measures shall be determined in coordination with the CDFW and may include measures listed below.               <ul style="list-style-type: none"> <li>○ To avoid impacts on maternity colonies or hibernating bats, the buildings and structures shall not be demolished while bats are present, generally between April 1 and September 15 (maternity season) and from October 30 to March 1 (hibernation).</li> <li>○ Removal of roosting habitat shall only occur only following the maternity season and prior to hibernation, generally between September 15 and October 30, unless exclusionary devices are first installed (as described below). Other measures, such as using lights to deter bat roosting, may be used if developed in coordination with and approved by CDFW.</li> <li>○ Installation of exclusion devices shall occur before maternity colonies establish or after they disperse, generally from March 1 –30 or September 15–October 30 to preclude bats from occupying a roost site during demolition. Exclusionary devices shall only be installed by or under the supervision of a qualified biologist.</li> </ul> </li> </ul> <p>The project applicant shall implement the following measures prior to tree removal or trimming:</p> <ul style="list-style-type: none"> <li>● Project applicant(s) shall avoid impacts on maternity colonies or hibernating bats if identified by avoiding tree removal between April 1 and September 15 (maternity season) and between October 30 and March 1 (hibernation) to the extent feasible.</li> <li>● No more than 2 weeks prior to the start of tree removal or trimming, a qualified biologist shall examine the trees that are to be removed or trimmed to identify suitable bat roosting habitat. High-quality habitat features (e.g., large tree cavities, basal hollows, loose or peeling bark, larger snags) shall be identified, and the area around these features shall</li> </ul>	

Impacts	Mitigation Measures	Resulting Level of Significance
	<p>be searched for bats and bat sign (e.g., guano, culled insect parts, staining). If the qualified biologist concludes that the trees do not provide suitable bat roosting habitat, no further actions are necessary and tree removal or trimming may commence.</p> <p>If the daytime survey identifies moderate or high potential for bats, an evening survey shall be conducted. The qualified biologist shall conduct evening visual emergence surveys of the source habitat feature from a half hour before sunset to 1 to 2 hours after sunset for a minimum of 2 nights within the season when construction shall take place. Night-vision goggles or full-spectrum acoustic detectors shall be used during emergence surveys to assist in species identification. All emergence surveys shall be conducted during favorable weather conditions (i.e., calm nights with temperatures conducive to bat activity [55 degrees and above] and no precipitation). If it is found that roosting special-status bats are present, protective measures determined by the qualified biologist in coordination with CDFW shall be implemented, as needed (see previous description for the types of measures).The CDFW may require compensatory mitigation for the loss of roosting habitat, depending on the species present and size of the bat roost. Compensation, if required, shall be determined in consultation with the CDFW and may include constructing, installing, or monitoring suitable replacement habitat on-site or near the project site to ensure it functions as intended.</p> <p><b>Mitigation Measure BIO-1c: Nesting Bird Protection</b></p> <ul style="list-style-type: none"> <li>• To the extent practicable, vegetation and tree removal, structural demolition, and other construction-related activities shall be performed from September 1 through January 31 to avoid the general nesting period for migratory birds protected by the MBTA.</li> <li>• If construction occurs during migratory bird nesting season (February 1 to August 31), the project applicant shall be responsible for the retention of a qualified biologist with demonstrated nesting bird survey experience to conduct a preconstruction nesting bird survey within 7 days prior to the start of construction in areas that have not been previously disturbed by project activities or after any construction breaks of 7 days or more. The survey shall be performed in suitable habitat to locate active passerine and raptor species (birds of prey) within 100 and 300 feet, respectively, of the applicable construction phase area.</li> </ul>	

Impacts	Mitigation Measures	Resulting Level of Significance
	<ul style="list-style-type: none"> <li>● If active nests are located during the preconstruction nesting bird surveys, a qualified biologist shall determine if the schedule of construction activities could affect the active nest; if so, the following measures shall apply, as determined by the qualified biologist:               <ul style="list-style-type: none"> <li>○ If the qualified biologist determines that construction would not affect an active nest, construction may proceed without restriction; however, a qualified biologist shall regularly monitor the nest at a frequency determined appropriate for the surrounding construction activity to confirm that there would be no adverse effect. The frequency of spot check monitoring would be determined on a case-by-case basis, considering the particular construction activity, duration, proximity to the nest, and physical barriers that may screen activity from the nest. The qualified biologist may revise his or her determination at any time during the nesting season, in coordination with the City.</li> <li>○ If it is determined that construction may affect an active nest, the qualified biologist shall establish a no-disturbance buffer around the nest(s), and all project work shall halt within the buffer to avoid disturbance or destruction until the qualified biologist determines that the nest is no longer active. Typically, buffer distances are no less than 50 feet for passerines and no less than 250 for raptors. These are standard buffer distances that State and federal regulators agree on as it is widely known in the avian community to minimize disturbances to nesting birds. The buffer size, which can vary with different species, shall be based on species' sensitivity to disturbance, planned work activities in the vicinity of the nest, the level of noise or construction disturbance, the line of sight between the nest and the area(s) of disturbance, ambient levels of noise and other disturbances, and topographical or artificial barriers.</li> <li>○ Modifying nest buffer distances, allowing certain construction activities within the buffer, and/or modifying construction methods in proximity to active nests shall be done at the discretion of the qualified biologist, in compliance with the California Fish and Game Code and other applicable laws.</li> <li>○ Any work that must occur within established no-disturbance buffers around active nests shall be monitored by a qualified biologist. If adverse effects in response to project work within the buffer are observed that could compromise the nest, work within the no-disturbance buffer(s) shall halt until the nest occupants have fledged.</li> </ul> </li> </ul>	

Impacts	Mitigation Measures	Resulting Level of Significance
	<ul style="list-style-type: none"> <li>○ Any birds that begin nesting within the project area and survey buffers amid construction activities are assumed to be habituated to construction-related or similar noise and disturbance levels. Therefore, exclusion zones around nests may be reduced or eliminated in these cases, as determined by the qualified biologist. Work may proceed around these active nests as long as the nests and their occupants are not directly affected.</li> <li>● Any inactive non-raptor nest on the project site shall be removed by a qualified biologist to deter nesting.</li> </ul>	
<p><b>Impact BIO-2:</b> The project could interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.</p>	<p>Implement <b>Mitigation Measures BIO-1a, BIO-1b, and BIO-1c</b>, described above.</p>	<p>LTSM</p>
<p><b>Impact BIO-3:</b> The project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.</p>	<p>Implement <b>Mitigation Measure BIO-1a</b>, described above.</p>	<p>LTSM</p>
<p><b>Impact C-BIO-1:</b> The project could result in a cumulatively considerable contribution to significant cumulative biological resources impacts.</p>	<p>Implement <b>Mitigation Measures BIO-1a, BIO-1b, and BIO-1c</b>, described above.</p>	<p>LTSM</p>
<p><b>Impact CUL-2:</b> The project has the potential to cause a substantial adverse change in the significance of an as-yet-undocumented human remains or archaeological resource as defined in Section 15064.5.</p>	<p><b>Mitigation Measure CUL-2a: Preconstruction Archaeological Sensitivity Training</b>                      Prior to the start of any construction activities, a qualified archaeologist shall conduct a preconstruction archaeological sensitivity training to the excavation crew. This training shall include an overview of what cultural resource are and why they are important, archaeological terms (such as site, feature, deposit), project site history, types of cultural resources likely to be uncovered during excavation, laws that protect cultural resources, and the unanticipated discovery protocol.</p> <p><b>Mitigation Measure CUL-2b: Unanticipated Discovery Protocol</b>                      Should an archaeological resource be encountered during project construction activities, the construction contractor shall halt construction within 50 feet of the find and immediately notify the City. Construction activities shall be redirected and a</p>	<p>LTSM</p>

Impacts	Mitigation Measures	Resulting Level of Significance
	<p>qualified archaeologist, in consultation with the City, shall 1) evaluate the archaeological resource to determine if it meets the CEQA definition of a historical or unique archaeological resource and 2) make recommendations about the treatment of the resource, as warranted. If the resource does meet the CEQA definition of a historical or unique archaeological resource, then it shall be avoided to the extent feasible by project construction activities. If avoidance is not feasible, then adverse effects to the deposit shall be mitigated as specified by CEQA Guidelines Section 15126.4(b) (for historic resources) or Section 21083.2 (for unique archaeological resources). This mitigation may include, but is not limited to, a thorough recording of the resource on Department of Parks and Recreation Form 523 records, or archaeological data recovery excavation. If data recovery excavation is warranted, CEQA Guidelines Section 15126.4 (b)(3)(C), which requires a data recovery plan prior to data recovery excavation, shall be followed. If the significant identified resources are unique archaeological resources, mitigation of these resources shall be subject to the limitations on mitigation measures for archaeological resources identified in CEQA Guidelines Sections 21083.2 (c) through 21083.2 (f).</p>	
<p><b>Impact CUL-3:</b> The project has the potential to disturb human remains, including those interred outside of formal cemeteries.</p>	<p><b>Mitigation Measure CUL-3: Handling of Human Remains</b>                      In the event that any human remains are encountered during construction activities, work within 50 feet of the discovery shall be redirected and the Alameda County Coroner shall be notified immediately. Concurrently, an archaeologist shall be contacted to assess the situation and consult with the appropriate agencies. If the human remains are of Native American origin, the coroner shall notify the NAHC within 24 hours of this identification in accordance with section 5097.98 of the California Public Resources Code, and section 7050.5 of the California Health and Safety Code, as applicable. The NAHC shall identify a most likely descendant to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods.</p>	<p>LTSM</p>
<p><b>Impact C-CUL-1:</b> The project could result in a cumulatively considerable contribution to significant cumulative cultural resources impacts.</p>	<p>Implement <b>Mitigation Measures CUL-2a, CUL-2b, and CUL-3</b>, described above.</p>	<p>LTSM</p>
<p><b>Impact EN-1:</b> The project could result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation.</p>	<p>Implement <b>Mitigation Measure GHG-1a</b>, described below.</p>	<p>LTSM</p>

Impacts	Mitigation Measures	Resulting Level of Significance
<p><b>Impact GEO-7:</b> The project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.</p>	<p><b>Mitigation Measure GEO-7: Paleontological Monitoring and Mitigation Plan</b>                      Prior to initial ground disturbance in previously undisturbed strata of geologic units with high sensitivity, the applicant shall retain a Qualified Paleontologist, as defined by the Society of Vertebrate Paleontology, to direct all mitigation measures related to paleontological resources and design a Paleontological Mitigation and Monitoring Program (PMMP) for the proposed project. The PMMP shall include measures for a preconstruction survey, a training program for construction personnel, paleontological monitoring, fossil salvage, curation, and final reporting, as applicable.</p>	<p>LTSM</p>
<p><b>Impact GHG-1a:</b> The proposed project could generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment during construction.</p>	<p><b>Mitigation Measure GHG-1a: Require Implementation of BAAQMD-recommended Construction BMPs</b>                      The project sponsor shall require their contractors, as a condition of contracts (e.g., standard specifications), to reduce construction-related GHG emissions by implementing BAAQMD's recommended best management practices, including (but not limited to) the following measures (based on BAAQMD's CEQA Guidelines ). The project applicant shall submit evidence of compliance to the City prior to permit issuance.</p> <ul style="list-style-type: none"> <li>● Ensure alternative fueled (e.g. biodiesel, electric) construction vehicles/equipment make up at least 15 percent of the fleet</li> <li>● Use local building materials of at least 10 percent (sourced from within 100 miles of the Planning Area)</li> <li>● Recycle and reuse at least 50 percent of construction waste or demolition materials</li> </ul>	<p>LTSM</p>
<p><b>Impact GHG-2:</b> The proposed project could conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.</p>	<p>Implement <b>Mitigation Measure GHG-1a</b>, described above.</p>	<p>LTSM</p>

Impacts	Mitigation Measures	Resulting Level of Significance
<p><b>Impact HAZ-2:</b> The project could create a significant hazard to the public or the environmental through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.</p>	<p><b>Mitigation Measure HAZ-2a: Site Management Plan</b></p> <p>Prior to issuance of a grading permit, the project sponsor shall retain the services of a qualified environmental engineering firm to prepare and implement, during site preparation and grading activities, a Site Management Plan (SMP). The SMP shall be designed to protect human health and the environment and include protocols, measures, and techniques for the proper handling, management, and disposition of affected soils found on the site and any areas of off-site work during site preparation and grading activities. The SMP shall also be designed to protect workers and off-site receptors during site activities and ensure the proper characterization, management, and/or disposal of contaminated environmental media that is above applicable Environmental Screening Levels (ESLs). The SMP shall be prepared by a commercial environmental engineering firm with demonstrated expertise and experience in the preparation of SMPs and be stamped by an appropriately licensed professional. The SMP shall be submitted for City and outside agency review in conformance with DIPSA Specific Plan, Toxic and Hazardous Substances Policy 5, and implemented throughout all ground-disturbing work. The SMP shall establish protocols and measures for addressing the discovery of presently unknown environmental conditions or subsurface structures such as USTs or sumps. If the environmental engineering firm subsequently identifies the need for further sampling, the project sponsor shall implement this and any other requirements identified in the SMP. The project sponsor shall enter into a voluntary agreement with the San Francisco Bay Regional Water Quality Control Board (RWQCB) for review and approval of the SMP. As lead agency for the site cleanup, the RWQCB will also have oversight authority pertaining to implementation of the SMP. If directed by the RWQCB, additional site investigation and characterization may be required prior to construction to ensure that hazardous materials in the soil, soil vapor, and/or groundwater do not exceed applicable regulatory thresholds. If additional site investigation and characterization is required prior to construction, the project sponsor shall implement said studies (and their respective recommendations,<sup>2</sup> if necessary) prior to construction. The RWQCB will also consult and coordinate with the ACWD on the scope of the SMP. The project sponsor shall provide a copy of the</p>	<p>LTSM</p>

<sup>2</sup> Recommendations would depend on the type of features or contaminant(s) encountered and extent of contamination and the media affected,

<b>Impacts</b>	<b>Mitigation Measures</b>	<b>Resulting Level of Significance</b>
	<p>SMP to the ACWD at the same time the SMP is submitted to the RWQCB for review and comment. As the oversight agency, the RWQCB shall provide the project sponsor with comments on the SMP. Prior to issuance of the grading permit, the project sponsor shall provide the City with a copy of the approved SMP and implement the SMP during site preparation and grading under the approving agency’s oversight at the project sponsor’s cost.</p> <p><b>Mitigation Measure HAZ-2b: Engineering Controls on the Project Site</b>                      Prior to the issuance of grading permits, the project sponsor shall demonstrate compliance with the recommendations in the Step-out Soil Gas Assessment (ENGE0 2013) to address vapor intrusion concerns. Implementation of engineering controls shall be implemented on the project site in accordance with the Step-out Soil Gas Assessment (ENGE0 2013) to address the presence of elevated VOCs (in areas where TCE and PCE concentrations exceeded residential screening levels). Engineering controls shall be installed to redirect and or minimize VOC concentrations. Said engineering controls shall consist of controls that allow for passive ventilation and discharge of the vapors into the atmosphere.</p> <p>Specific engineering controls may include, but will not be limited to:</p> <ul style="list-style-type: none"> <li>● Installation of subsurface migration barriers; and/or</li> <li>● Inclusion of ventilated foundations for any proposed structures; and/or</li> <li>● The use and implementation of an alternative method or structural design that would address soil gas releases and reduce the potential for hazardous conditions to occur.</li> </ul> <p>Appropriate engineering control system(s) shall be determined with concurrence, approval, and oversight of the DTSC and RWQCB, and shall be dependent on future building placement and construction. If monitoring or extraction wells remain in place at the time that engineering controls are submitted to DTSC and RWQCB, the engineering controls shall ensure that building placement will not interfere with operation of the well facilities, or that DTSC and/or RWQCB have approved any required modifications to the well facilities.</p> <p><b>Mitigation Measure HAZ-2c: Conduct a Hazardous Building Materials Survey prior to Demolition Activities</b>                      Prior to the issuance of a demolition permit, a comprehensive Hazardous Building Materials Assessment shall be conducted by a licensed contractor prior to demolition activities associated with the project. Should this assessment</p>	



<b>Impacts</b>	<b>Mitigation Measures</b>	<b>Resulting Level of Significance</b>
	<p>determine that lead-based paint and/or asbestos or other hazardous building materials are present, the following actions shall be implemented:</p> <ul style="list-style-type: none"> <li>● A health and safety plan shall be developed by a certified industrial hygienist for potential lead-based paint, asbestos or other hazardous building materials risks present during demolition. The health and safety plan shall then be implemented by a licensed contractor.</li> <li>● Both the federal Occupational Safety and Health Administration (OSHA) and the California Occupational Safety and Health Administration (Cal/OSHA) regulate worker exposure during construction activities that affect lead-based paint. The Interim Final Rule found in 29 Code of Federal Regulations, Part 1926.62 covers construction work in which employees may be exposed to lead during such activities as demolition, removal, surface preparation for repainting, renovation, cleanup, and routine maintenance.</li> <li>● Acquire necessary approvals from the City and/or County for specifications or commencement of abatement activities. Abatement activities shall be conducted by a licensed contractor.</li> <li>● Prior to demolition of construction debris containing asbestos the Bay Area Air Quality Management District (BAAQMD) shall be notified ten days prior to initiating construction and demolition activities. Demolition permit submittal to the City shall include BAAQMD Asbestos Demolition/Renovation job number (J#) and related BAAQMD acknowledgement letter.</li> <li>● Asbestos shall be disposed of at a licensed disposal facility. Section 19827.5 of the California Health and Safety Code, adopted January 1, 1991, requires that local agencies not issue demolition or alteration permits until an applicant has demonstrated compliance with notification requirements under applicable federal regulations regarding hazardous air pollutants, including asbestos.</li> <li>● The local office of the Cal/OSHA shall be notified of asbestos abatement activities.</li> <li>● Asbestos abatement contractors shall follow State regulations contained in 8 CCR 1529 and 8 CCR 341.6 through 341.14 where there is asbestos-related work involving 100 square feet or more of asbestos containing material.</li> <li>● Asbestos removal contractors shall be certified as such by the Contractors Licensing Board of the State of California. The owner of the property where abatement is to occur shall have a Hazardous Waste Generator Number assigned by and registered with the Office of the California Department of Health Services in Sacramento.</li> </ul>	

Impacts	Mitigation Measures	Resulting Level of Significance
	<ul style="list-style-type: none"> <li>● Contractors and subcontractors shall comply with Union City Municipal Code 13.42.050 in performing a priority building materials screening assessment.</li> <li>● The contractor and hauler of hazardous building materials shall file a Hazardous Waste Manifest that details the hauling of the material from the site and the disposal of it. Pursuant to California law, the City of Union City shall not issue the required permit until the applicant has complied with the notice requirements described above.</li> </ul>	
<p><b>Impact HAZ-3:</b> The project would not emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.</p>	<p>Implement <b>Mitigation Measure HAZ-2a</b>, described above.</p>	<p>LTSM</p>
<p><b>Impact HAZ-4:</b> The project would not be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would not create a significant hazard to the public or the environment.</p>	<p>Implement <b>Mitigation Measure HAZ-2a</b>, described above.</p>	<p>LTSM</p>
<p><b>Impact NOI-1:</b> The project could generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.</p>	<p><b>Mitigation Measure NOI-1a: Construction Noise Control Plan</b></p> <p>Prior to demolition or grading permit issuance, the project applicant shall submit a noise control plan to reduce construction noise levels such that project construction noise would be in compliance with the City’s Community Noise Ordinance, as determined by a qualified acoustical consultant, for approval by the Economic and Community Development Department. The plan shall require one of the following measures in order to achieve this result:</p> <ul style="list-style-type: none"> <li>● Noise producing construction activities shall be restricted to the hours of 8:00 a.m. to 8:00 p.m. during weekdays; 9:00 a.m. to 8:00 p.m. on Saturdays; and 10:00 a.m. to 6:00 p.m. on Sundays and holidays. In addition, permitted construction activities shall meet at least one of the following noise limitations:                             <ul style="list-style-type: none"> <li>○ No individual piece of equipment shall be permitted to produce a noise level exceeding 83 dBA as measured at a distance of 25 feet. This could be achieved in a variety of ways, including but not limited to selecting quieter equipment that generates noise levels of less than 83 dBA <math>L_{max}</math> at a distance of 25 feet, or incorporating sound muffling devices on construction equipment;</li> </ul> </li> </ul>	<p>LTSM</p>

Impacts	Mitigation Measures	Resulting Level of Significance
	<p>OR</p> <ul style="list-style-type: none"> <li>○ The noise levels at any point outside the property plane<sup>3</sup> of the project shall not exceed 86 dBA. This could be achieved in a variety of ways, including but not limited to ensuring equipment is operating at sufficient distances from the edge of the project site property line, incorporating sound muffling devices on construction equipment, or utilizing temporary noise barriers to reduce construction noise when construction equipment must be in proximity to the edge of the property line (particularly near noise-sensitive land uses).</li> <li>● All construction equipment shall have appropriate sound muffling devices, which shall be properly maintained and used at all times such equipment is in operation.</li> <li>● The project contractor shall place all stationary construction equipment so that emitted noise is directed away from the closest off-site sensitive receptors.</li> <li>● The construction contractor shall locate on-site equipment staging areas so as to maximize the distance between construction-related noise sources and the noise-sensitive receptors closest to the project construction areas.</li> <li>● A publicly visible sign shall be posted with the telephone number and contact information for the designated on-site construction manager available to receive and respond to noise complaints. This person shall report all complaints to the City of Union City Public Works Department.</li> </ul> <p><b>Mitigation Measure NOI-1b: Operational Equipment Noise Control Plan</b></p> <p>An Operational Equipment Noise Control Plan shall be prepared prior to issuance of the first City-issued building permit for the proposed development for approval by the Public Works Department and Building Division. The plan shall include a noise analysis for the project that evaluates HVAC and other stationary mechanical equipment with the potential to generate noise levels in excess of ambient noise levels by 10 dB on new residential properties and by 12 dB on new commercial properties.</p> <p>The analysis shall be prepared by persons qualified in acoustical analysis and/or engineering and demonstrate with reasonable certainty that the operational noise sources associated with the project would not result in a noise level that</p>	

<sup>3</sup> For the purposes of this analysis, the “property plane” is assumed to be the boundaries of the project site.

Impacts	Mitigation Measures	Resulting Level of Significance
	<p>would be in excess of the Community Noise Ordinance. All recommendations from the acoustical analysis necessary for ensuring that noise sources would meet applicable requirements of the noise ordinance and would not result in 10 dB (for sources on residential properties) or 12 dB (for sources on commercial properties) increases in ambient noise levels shall be incorporated into plans submitted for building permit issuance and building operation.</p>	
<p><b>Impact C-NOI-1:</b> The project would not result in a cumulatively considerable contribution to significant cumulative noise and vibration impacts.</p>	<p>Implement <b>Mitigation Measures NOI-1a and NOI-1b</b>, described above.</p>	<p>LTSM</p>
<p><b>Impact TCR-1:</b> The project could cause a potentially substantial adverse change in the significance of a tribal cultural resource that is listed or eligible for listing in the CRHR, in a local register of historical resources (as defined in PRC Section 5020.1(k). This also includes tribal cultural resources determined to be significant by the lead agency in its discretion and supported by substantial evidence (as defined in subdivision (c) of Public Resources Code Section 5024.1).</p>	<p>Implement <b>Mitigation Measures CUL-2a, CUL-2b, and CUL-3</b>, described above.</p>	<p>LTSM</p>
<p><b>Impact C-TCR-1:</b> The project could result in a cumulatively considerable contribution to significant cumulative tribal cultural resources impacts.</p>	<p>Implement <b>Mitigation Measures CUL-2a, CUL-2b, and CUL-3</b>, described above.</p>	<p>LTSM</p>
<p><b>Less-than-Significant Impacts (No Mitigation Required)</b></p>		
<p><b>Impact AQ-1:</b> The proposed project would not conflict with or obstruct implementation of the applicable air quality plan.</p>	<p>None required.</p>	<p>LTS</p>
<p><b>Impact AQ-4:</b> The proposed project would not result in the other emissions (such as those leading to odors) adversely affecting a substantial number of people.</p>	<p>None required.</p>	<p>LTS</p>

Impacts	Mitigation Measures	Resulting Level of Significance
<b>Impact BIO-3:</b> The project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	None required.	LTS
<b>Impact EN-2:</b> The project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency.	None required.	LTS
<b>Impact C-EN-1:</b> The proposed project, in combination with past, present, and reasonably foreseeable future projects, would not result in wasteful, inefficient, or unnecessary consumption of energy resources during project operation or construction.	None required.	LTS
<b>Impact C-EN-2:</b> The project, in combination with past, present, and reasonably foreseeable projects, would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency.	None required.	LTS
<b>Impact GEO-1:</b> The project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving strong seismic ground shaking.	None required.	LTS
<b>Impact GEO-2:</b> The project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismically related ground failure, including liquefaction.	None required.	LTS
<b>Impact GEO-3:</b> The project would not result in substantial soil erosion or the loss of topsoil.	None required.	LTS
<b>Impact GEO-4:</b> The project would not be located on a geologic unit or soil that is unstable, or that will become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.	None required.	LTS

Impacts	Mitigation Measures	Resulting Level of Significance
<b>Impact GEO-5:</b> The project would not be located on expansive soil, as defined in Section 1802.3.2 of the California Building Standards Code (2007), creating substantial direct or indirect risks to life or property.	None required.	LTS
<b>Impact C-GEO-1:</b> The project, in combination with past, present, and reasonably foreseeable future projects, would not result in a significant cumulative impact on geology, soils, and paleontology.	None required.	LTS
<b>Impact GHG-1b:</b> The proposed project would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment during operation.	None required.	LTS
<b>Impact HAZ-1:</b> The project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	None required.	LTS
<b>Impact HAZ-5:</b> The project would not impair implementation of, or interfere with, an adopted emergency response plan or emergency evacuation plan.	None required.	LTS
<b>Impact C-HAZ-1:</b> The project, in combination with past, present, and reasonably foreseeable future projects, would not result in a significant cumulative impact on hazards and hazardous materials.	None required.	LTS
<b>Impact WQ-1:</b> The project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.	None required.	LTS

Impacts	Mitigation Measures	Resulting Level of Significance
<p><b>Impact WQ-2:</b> The project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project would impede sustainable groundwater management of the basin.</p>	None required.	LTS
<p><b>Impact WQ-3:</b> The project could alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or rive or the addition of impervious surfaces, in a manner that would:</p> <ul style="list-style-type: none"> <li>a. Result in substantial erosion or siltation on- or off-site;</li> <li>b. Substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site;</li> <li>c. Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or</li> <li>d. Impede or redirect floodflows.</li> </ul>	None required.	LTS
<p><b>Impact WQ-4:</b> The project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.</p>	None required.	LTS
<p><b>Impact C-WQ-1:</b> The project, in combination with past, present, and reasonably foreseeable future projects, would not result in a significant cumulative impact on hydrology and water quality.</p>	None required.	LTS
<p><b>Impact LU-1:</b> The project would not physically divide an established community.</p>	None required.	LTS

Impacts	Mitigation Measures	Resulting Level of Significance
<b>Impact LU-2:</b> The project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.	None required.	LTS
<b>Impact C-LU-1:</b> The project, in combination with past, present, and reasonably foreseeable future projects, would not result in a significant cumulative impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.	None required.	LTS
<b>Impact NOI-2:</b> The project would not generate excessive ground-borne vibration or ground-borne noise levels.	None required.	LTS
<b>Impact POP-1a:</b> The project would not induce substantial unplanned population growth in an area directly (for example, by proposing new homes and businesses).	None required.	LTS
<b>Impact POP-1b:</b> The project would not induce substantial unplanned population growth in an area indirectly (for example, through extension of roads or other infrastructure).	None required.	LTS
<b>Impact C-POP-1:</b> The project, in combination with past, present, and reasonably foreseeable future projects, would not result in a significant cumulative impact on population and housing.	None required.	LTS
<b>Impact PSR-1:</b> The project would increase the demand for police service or fire protection service but not to such an extent that construction of new or expanded facilities would be required.	None required.	LTS



Impacts	Mitigation Measures	Resulting Level of Significance
<b>Impact PSR-2:</b> The project would not substantially increase student enrollment such that new or physically altered facilities would be required.	None required.	LTS
<b>Impact PSR-3:</b> The project would increase the use of existing neighborhood and regional parks or other recreational facilities, but would not result in substantial deterioration or physical degradation of such facilities or result in adverse physical environmental effects from development of new recreational facilities.	None required.	LTS
<b>Impact PSR-4:</b> The project would increase the demand for other public service and community facilities, but not to such an extent that construction of new or expanded facilities would be required.	None required.	LTS
<b>Impact C-PSR-1:</b> The project, in combination with past, present, and reasonably foreseeable future projects, would not result in a significant cumulative impact on public services and recreation.	None required.	LTS
<b>Impact TRA-1:</b> The proposed project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.	None required.	LTS
<b>Impact TRA-2:</b> The proposed project would not be in conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).	None required.	LTS
<b>Impact TRA-3:</b> The proposed project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible land uses (e.g., farm equipment).	None required.	LTS

Impacts	Mitigation Measures	Resulting Level of Significance
<b>Impact TRA-4:</b> The proposed project would not result in inadequate emergency access.	None required.	LTS
<b>Impact C-TRA-1:</b> The project, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.	None required.	LTS
<b>Impact C-TRA-2:</b> The project would not result in a cumulatively considerable contribution to significant cumulative impacts related to a conflict or inconsistency with CEQA Guidelines Section 15064.3, subdivision (b).	None required.	LTS
<b>Impact C-TRA-3:</b> The project, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible land uses (e.g., farm equipment).	None required.	LTS
<b>Impact C-TRA-4:</b> The project, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not result in inadequate emergency access.	None required.	LTS
<b>Impact UT-1:</b> In the immediate project area, the project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects.	None required.	LTS

Impacts	Mitigation Measures	Resulting Level of Significance
<b>Impact UT-2:</b> The project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.	None required.	LTS
<b>Impact UT-3:</b> The project would not result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.	None required.	LTS
<b>Impact UT-4:</b> The project would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. In addition, the proposed project would comply with federal, State, and local management and reductions statutes and regulations related to solid waste.	None required.	LTS
<b>Impact C-UT-1:</b> The project, in combination with past, present, and reasonably foreseeable future projects, would not result in a significant cumulative impact on public services and recreation.	None required.	LTS
<b>Impact WF-1:</b> The project would not substantially impair an adopted emergency response plan or emergency evacuation plan.	None required.	LTS
<b>Impact WF-3:</b> The project would not require the installation or maintenance of associated infrastructure, such as roads, fuel breaks, emergency water sources, power lines, or other utilities, that may exacerbate fire risks or that may result in temporary or ongoing impacts on the environment.	None required.	LTS

Impacts	Mitigation Measures	Resulting Level of Significance
<b>Impact C-WF-1:</b> The project, in combination with past, present, and reasonably foreseeable future projects, would not result in a significant cumulative impact on a statewide or locally adopted emergency response plan or emergency evacuation plan.	None required.	LTS
<b>No Impact (No Mitigation Required)</b>		
<b>Impact AG-1:</b> The project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.	None required.	NI
<b>Impact AG-2:</b> The project would not conflict with existing zoning for agricultural use or a Williamson Act contract.	None required.	NI
<b>Impact AG-3:</b> The project would not conflict with existing zoning for, or cause rezoning of, forestland (as defined in Public Resources Code Section 12220[g]), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104[g]).	None required.	NI
<b>Impact AG-4:</b> The project would not result in a loss of forestland or conversion of forestland to non-forest uses.	None required.	NI
<b>Impact AG-5:</b> The project would not involve other changes in the existing environment that, because of their location or nature, could result in the conversion of Farmland to non-agricultural use or conversion of forestland to non-forest use.	None required.	NI

Impacts	Mitigation Measures	Resulting Level of Significance
<b>Impact CUL-1:</b> The project would not cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5.	None required.	NI
<b>Impact GEO-6:</b> The project would not have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.	None required.	NI
<b>Impact MIN-1:</b> The project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State.	None required.	NI
<b>Impact MIN-2:</b> The project would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.	None required.	NI
<b>Impact WF-2:</b> The project would not due to slope, prevailing winds, or other factors exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.	None required.	NI
<b>Impact WF-4:</b> The project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.	None required.	NI
<b>Impacts Not Evaluated Further (No Mitigation Required)</b>		
<b>BIO:</b> Riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFW or USFWS.	None required.	N/A

Impacts	Mitigation Measures	Resulting Level of Significance
<b>BIO:</b> Impact through direct removal, filling, hydrological interruption, or other means on State or federally protected wetlands (including, but not limited to marshes, vernal pools, coastal areas, etc.).	None required.	N/A
<b>BIO:</b> Provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan.	None required.	N/A
<b>GEO:</b> Potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as described on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. (Refer to Division of Mines and Geology Special Publications 42).	None required.	N/A
<b>GEO:</b> Potential substantial adverse effects, including the risk of loss, injury, or death involving landslides.	None required.	N/A
<b>HAZ:</b> The project, if located within an airport land use plan, or where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would not result in a safety hazard or excessive noise for people residing or working in the project area.	None required.	N/A
<b>WQ:</b> In flood hazard, tsunami, or seiche zones, risk a release of pollutants due to project site inundation.	None required.	N/A

Impacts	Mitigation Measures	Resulting Level of Significance
<b>NOI:</b> For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, will the project expose people residing or working in the project area to excessive noise levels.	None required.	N/A
<b>NOI:</b> Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. (Train Horn Noise)	None required.	N/A
<b>POP:</b> Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.	None required.	N/A
Notes: SUM = Significant and Unavoidable with Mitigation, LTSM= Less than Significant with Mitigation, LTS= Less than Significant, NI= No Impact, N/A= Not Applicable.		





## 2.1 Purpose of the Environmental Impact Report

The California Environmental Quality Act (CEQA) and the CEQA Guidelines require an Environmental Impact Report (EIR) to be prepared for any project that may have a significant impact on the environment. This Draft EIR has been prepared by the Planning Division of the City of Union City (City) Economic & Community Development Department, the Lead Agency for the proposed project. The Lead Agency is the public agency that has principal responsibility for carrying out or approving a project.

An EIR is an informational document, the purposes of which are “to provide public agencies and the public in general with detailed information about the effect which a proposed project is likely to have on the environment; to list ways in which the significant effects of such a project might be minimized; and to indicate alternatives to such a project.” The information contained in this Draft EIR is intended to be objective and unbiased, and to enable the reader to arrive at an independent judgment regarding the significance of the environmental impacts resulting from the proposed project.

The degree of specificity required in an EIR should “correspond to the degree of specificity involved in the underlying activity which is described in the EIR” per CEQA Guidelines Section 15146. Pursuant to CEQA Guidelines Section 15161, this is a project-level EIR, which is defined as an EIR that examines the physical environmental impacts of a specific development project. This Draft EIR evaluates the potential impacts that may be associated with the Station East Mixed-Use/Residential Project (proposed project) at the intersection of Decoto Road and 7<sup>th</sup> Street in Union City, California.

## 2.2 Environmental Impact Report Review Process

This Draft EIR, together with the Final EIR (described below) will constitute the EIR for the proposed project. The EIR is intended to enable City decision makers, public agencies, and interested citizens evaluate the environmental issues associated with the proposed project.

Copies of this Draft EIR and all documents referenced in this Draft EIR will be available at the Planning Division of the City’s Economic & Community Development Department, at 34009 Alvarado-Niles Road in Union City by appointment (contact Denisse Anzoategui at [denissea@unioncity.org](mailto:denissea@unioncity.org) or 510-675-5319), and, if open to the public during the public review period, at the Union City Library, at 34007 Alvarado-Niles Road in Union City. This Draft EIR is also available for viewing or downloading at <https://www.unioncity.org/347/Planning-Documents>.

The City, on November 6, 2020, filed a Notice of Completion (NOC) with the State Clearinghouse, indicating that this Draft EIR has been completed and is available for review and comment. This Draft EIR will be available for review by the public and interested parties, agencies, and organizations for a review period of at least 45 days, as required by California law. Pursuant to

Public Resources Code Section 21091(d)(3), the City will accept email comments in lieu of mailed or hand-delivered comments; however, reviewers are encouraged to follow up any email comments with letters. Reviewers should focus on the document's adequacy in identifying and analyzing the proposed project's significant effects on the environment and ways in which the significant effects of the proposed project might be avoided or mitigated per California Code of Regulations Section 15204(a). In addition, reviewers should explain the basis for their comments, and, whenever possible, should submit data or references in support of their comments.

**The 45-day review period for this Draft EIR is from November 6, 2020 to December 21, 2020.** Comments on this Draft EIR may be submitted in writing until 5:00 p.m. Pacific Standard Time on the last day of public review. Comments should be submitted in writing during this review period to the person listed below.

Carmela Campbell  
City of Union City  
Economic & Community Development Department  
34009 Alvarado-Niles Road  
Union City, CA 94587-4497  
Telephone: (510) 675-5316  
Email: StationDistrict@unioncity.org

Following the close of the Draft EIR public review and comment period, the City will prepare responses to comments, which will contain a summary of oral comments and a copy of all written comments received on this Draft EIR and the City's responses to those comments along with any necessary changes to the text of this Draft EIR. Responses to comments will be prepared and published in a Final EIR. The Final EIR will be available to all commenting agencies at least 10 days prior to the certification hearing, in accordance with CEQA requirements.

The City Council will review the Final EIR for adequacy and certify that the EIR has been completed in compliance with CEQA and that it reflects the City's independent judgment pursuant to the requirements of CEQA Guidelines Section 15090. The City will first consider certification of the Final EIR and then consider the proposed project separately for approval or denial. Findings about the feasibility of avoiding or reducing the proposed project's significant environmental effects will be presented and, if necessary, a Statement of Overriding Considerations will be prepared, balancing the benefits achieved by the proposed project against unavoidable environmental impacts, should the City choose to approve the proposed project with remaining significant impacts that cannot be avoided.

If the City approves the proposed project, a Notice of Determination (NOD) will be prepared and filed with the State Clearinghouse. The NOD will include a description of the project, the date of approval, and an indication of whether Findings and Statements of Overriding Considerations were prepared. The NOD will also provide the address where the EIR and record of project approval are available for review.

## 2.3 Content and Organization of This Draft Environmental Impact Report

A Notice of Preparation (NOP) was issued on March 10, 2020 to solicit comments from public agencies and the public regarding the scope of the environmental evaluation for the proposed project. The NOP and all written responses to the NOP are provided in **Appendix 2**. These comments were taken into consideration during the preparation of this Draft EIR.

This Draft EIR is organized into the following chapters.

- **Chapter 1, Executive Summary**, summarizes the proposed project and environmental consequences that would result from implementation of the project (including significant and unavoidable impacts that cannot be mitigated to a level of less than significant, impacts reduced to a level of less than significant through mitigation, and impacts determined not to be significant), the alternatives to the proposed project that were analyzed, and a summary table of project impacts and mitigation measures.
- **Chapter 2, Introduction**, summarizes the purpose and organization of this Draft EIR and the environmental review process.
- **Chapter 3, Project Description**, describes the existing setting, the project sponsor's objectives, the proposed project, and required approvals and actions for the proposed project.
- **Chapter 4, Environmental Setting, Impacts, and Mitigation**, begins with Section 4.0, *Approach to Environmental Impact Analysis*, which presents the methodology for environmental analysis, including a list of baseline projects and cumulative projects. Sections 4.1 through 4.15 are each devoted to a particular environmental topic. Each section describes the environmental setting, including applicable plans and policies, provides an analysis of the potential environmental impacts of the project and cumulative impacts, and identifies mitigation measures to reduce significant impacts. The following topics are analyzed in the sections.
  - Section 4.1, *Air Quality*
  - Section 4.2, *Biological Resources*
  - Section 4.3, *Cultural Resources*
  - Section 4.4, *Energy*
  - Section 4.5, *Geology, soils, and Paleontological Resources*
  - Section 4.6, *Greenhouse Gases*
  - Section 4.7, *Hazards and Hazardous Materials*
  - Section 4.8, *Hydrology and Water Quality*
  - Section 4.9, *Land Use*
  - Section 4.10, *Noise*
  - Section 4.11, *Population and Housing*
  - Section 4.12, *Public Services and Recreation*
  - Section 4.13, *Tribal Cultural Resources*

- Section 4.14, *Transportation*
- Section 4.15, *Utilities and Service Systems*
- Section 4.16, *Less-than-Significant Impacts* summarizes the environmental effects found not to be significant. After an introduction to the section, the following topics are discussed.
  - Section 4.16.1, *Aesthetics*
  - Section 4.16.2, *Agricultural and Forest Resources*
  - Section 4.16.3, *Mineral Resources*
  - Section 4.16.4, *Wildfire*
- **Chapter 5, Other CEQA Topics**, contains a discussion of growth-inducing impacts, significant impacts that cannot be avoided, significant irreversible environmental changes, and areas of known controversy and project-related issues that have not been resolved.
- **Chapter 6, Alternatives**, summarizes three alternatives to the proposed project and the comparative environmental consequences and benefits of each alternative. The No Project Alternative, Increased Office Alternative, and Reduced Intensity Alternative are analyzed. Chapter 6 also identifies the proposed project's environmentally superior alternative. It also discusses any alternatives that were considered for analysis in the EIR that were rejected, and gives the reasons for their rejection.
- **Chapter 7, List of Preparers**, identifies the Lead Agency and the consultants working on this EIR.

Appendices to this Draft EIR are listed below.

- Appendix 2. Notice of Preparation and Comments
- Appendix 4.1-1. Air Quality and Greenhouse Gases Construction and Operational Analysis
- Appendix 4.2-1. Tree Inventory
- Appendix 4.2-2. Special-Status Species with Potential to Occur in the Project Site
- Appendix 4.3-1. DPR Forms
- Appendix 4.3-2. Cultural Resources Records Search Results
- Appendix 4.3-3. Native American Heritage Commission and Native American Groups Consultation
- Appendix 4.7. Environmental Data Resources Radius Map Report
- Appendix 4.8-1. Updated Summary of Stormwater Infrastructure Modeling
- Appendix 4.8-2. LID Reduction Narrative Memorandum
- Appendix 4.8-3. Additional Hydraulic Modeling of the Existing Zwissig Way Storm Drain Line
- Appendix 4.10. Noise Measurement Dataset
- Appendix 4.15-1. Water Supply Assessment

## 3.1 Project Overview

This environmental impact report (EIR) evaluates the potential environmental impacts anticipated to result from construction and operation of the mixed-use development project proposed by Integral Communities (project applicant). It is intended that this EIR will be used for the appropriate discretionary decisions and approvals necessary to implement the proposed Station East Residential/Mixed Use Project (project). The City of Union City (City) is the Lead Agency for environmental review.

The project is an infill project involving redevelopment of an approximately 26.5-acre site (project site) between 7<sup>th</sup> Street and the Niles subdivision Union Pacific Railroad (UPRR) tracks in the City of Union City, Alameda County, California. The project site (assessor's parcel numbers [APNs] 87-21-5-2, 87-21-13-1, 87-21-13-2, 87-23-12, 87-23-10, and 87-23-13-2) is currently occupied by existing and vacant industrial uses (totaling 86,500 square feet [sf], or 2.0 acres); surface parking lots, asphalt or concrete storage lots, a roadway, and railroad spur improvements (6.4 acres); and vacant unpaved areas, including agricultural, annual grassland, landscaped, and ruderal areas (18.1 acres).

The project proposes demolition of the buildings and surface parking lots and development of up to approximately 1.8 million sf, including up to 974 new residential units (apartments, condominiums, and townhome-style condominiums, referred to in this report as townhomes) and approximately 30,800 sf of commercial space. The project site would include 11 planning areas (PAs) with 33 residential buildings and one community building. Most of the 34 proposed buildings would be between three and five stories tall. Vehicular access to the project site would be via Decoto Road on the north side of the project site, 7<sup>th</sup> Street on the east side of the project site, and Bradford Way and Zwissig Way on the south side of the project site. One linear paseo (Paseo C) would extend through the southern portion of the project site in the east-west direction. Three community parks, one tot lot, and one outdoor amphitheater would be located throughout the project site. In addition, urban plazas would be located near the proposed commercial uses in PA 1. Pedestrian, bicycle, and vehicular access would be provided throughout the project site. The proposed project would include approximately 1,791 parking spaces for vehicles (including 190 on-street surface stalls) and 458 parking spaces for bicycles, both long term (i.e., bike storage facilities) and short term (i.e., bicycle racks). Construction of the proposed project would begin in mid-2021 and occur in two phases over approximately 4.5 years, with anticipated completion in late 2025.

The project site is part of the *Decoto Industrial Park Study Area Specific Plan* (DIPSA Specific Plan) area. The DIPSA Specific Plan is currently undergoing an update, referred to as the *Station District Specific Plan*. The project site is identified in the *City of Union City 2040 General Plan* (General Plan) as part of the Station East subarea of the Greater Station District and is designated on the General Plan Land Use Diagram as Station East Mixed Use (SEMU). The project proposes a General Plan amendment to update land use targets for the Station East area, reduce the minimum density to 25 units per acre, provided a certain average density is maintained, and other minor updates for consistency with the related Specific Plan Amendment for consistency with the related Specific Plan Amendment. The project includes a Specific Plan Amendment to the DIPSA Specific Plan for

consistency with the 2040 General Plan. The amendment includes the addition of goals and policies that support the development of Station East as a high-density, transit-oriented area for jobs and housing that reflects new land uses, circulation patterns, design attributes, etc. for the area.

The project site is zoned Research and Development Campus (RDC). The project also includes creation of a new zoning designation, Station East Mixed Use (SEMU), for consistency with the General Plan designation of SEMU and related General Plan and Specific Plan existing and proposed policies for the Station East subarea. A zoning map amendment is also proposed to create a new zoning district for the project site.

This chapter includes a discussion of the proposed project's location and existing site characteristics, followed by details regarding the project and a summary of required approvals and entitlements.

## 3.2 Project Objectives

Section 15124(B) of the California Environmental Quality Act (CEQA) Guidelines requires the EIR project description to include a statement of the project objectives. The project applicant has identified the following objectives for the project:

- Provide a mix of land uses, generally encompassing residential and commercial activities, while featuring ground-floor uses that maintain street vitality along Decoto Road.
- Provide strong connections to the Union City Intermodal Station, which includes the Union City Bay Area Rapid Transit (BART) station while creating active, multi-modal streets that benefit cyclists and pedestrians within the neighborhood.
- Locate high-intensity development close to the Union City Intermodal Station including the Union City BART station.
- Provide a range of residential unit types for sale and for rent that will attract a wider demographic and promote greater diversity, safety, and activity.
- Provide ground-floor retail and locally focused commercial space to meet residents' needs and activate the street network.
- Offer an attractive and diverse network of public active and passive open spaces for the community.
- Develop a street grid that accommodates vehicles, bicycles, and pedestrians.
- Develop a design that focuses on high-quality buildings and landscapes while considering conservation of resources.
- Minimize traffic impacts on area roads by increasing housing density in an area well served by regional public transportation (including BART).
- Provide much-needed affordable housing through the delivery of affordable units.
- Create a community consisting of high-quality architecture that encourages walkability within the neighborhood.
- Encourage infill redevelopment of underused sites in areas served by adequate infrastructure and services that are near public transportation, freeways, and urban centers to encourage multi-family housing in proximity to transit corridors.

## 3.3 Existing Setting

The following discussion describes the geographic context of the project site and provides a brief overview of the existing land uses in the vicinity of the site.

### 3.3.1 Location

The project site is in the southeast corner of the developed portion of the City. The six-parcel, approximately 26.5-acre project site is bound by Decoto Road to the north, 7<sup>th</sup> Street to the east, and Bradford Way and several industrial uses to the south, as shown in Figure 3-1. The project site is adjacent to the Niles subdivision UPRR tracks along the western perimeter. Just beyond the railroad tracks are several residential developments and the Union City BART station.

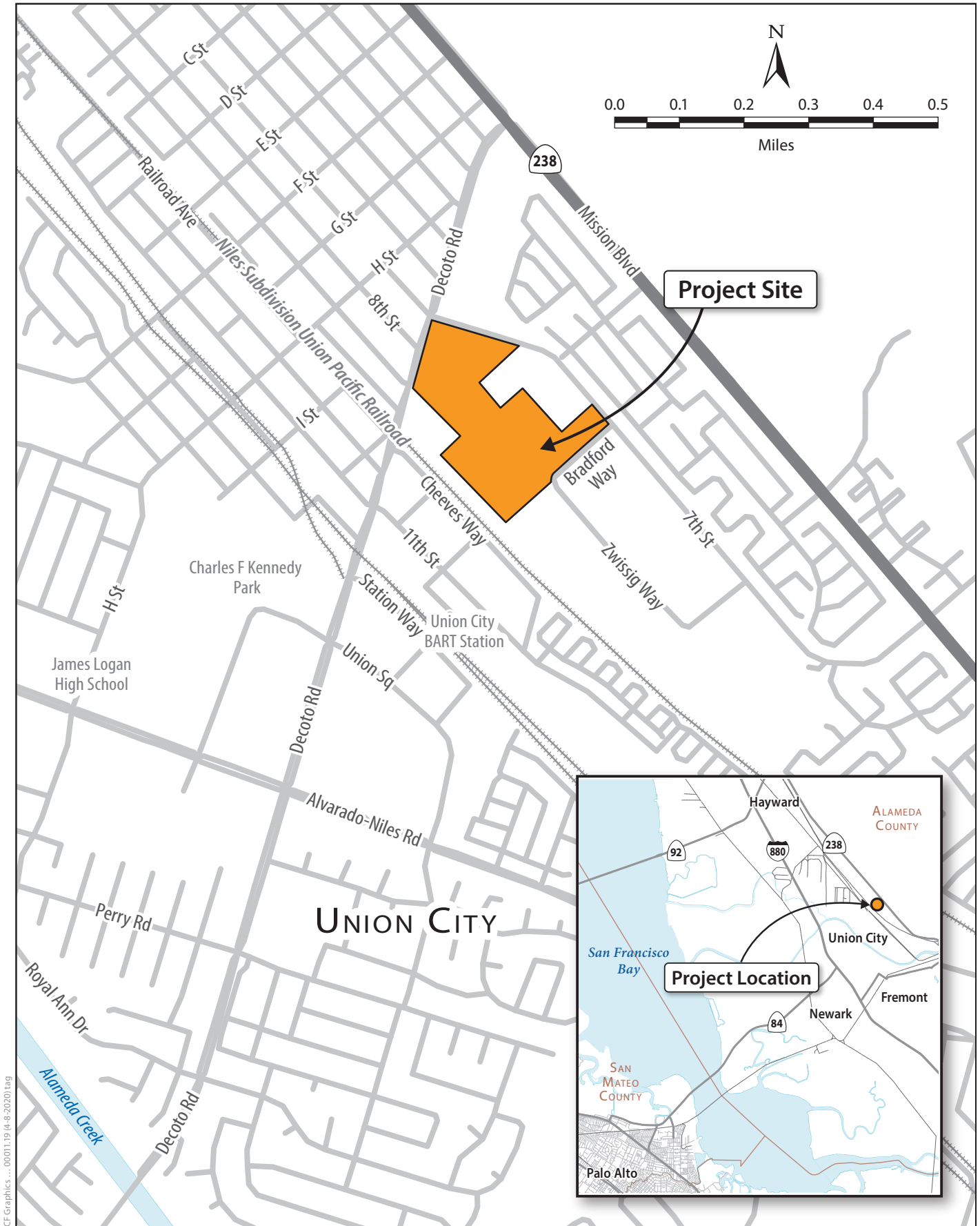
The project site is part of the 105-acre Station East subarea of the DIPSA Specific Plan. The original DIPSA Specific Plan was approved in 1994 and comprehensively updated in 2006 to reflect cleanup of several hundred acres of contaminated lands and development of new residential areas. The DIPSA Specific Plan is currently being updated (referred to as the *Station District Specific Plan*) to be consistent with future growth and development in the area, as well as the recently approved 2040 General Plan. See Section 4.9, *Land Use and Planning*, for an in-depth description of the proposed General Plan and Specific Plan updates. The project site is also located in a Priority Development Area (PDA). PDAs are existing neighborhoods within the vicinity of frequent transit and in an area planned for future housing and job growth; they are a key regional strategy for the Metropolitan Transportation Commission (MTC) and Association of Bay Area Government's (ABAG) Plan Bay Area to develop the region in a sustainable manner.

### 3.3.2 Surrounding Land Uses

As shown in Figure 3-2, the project site is surrounded by a variety of land uses, including industrial uses to the east and south, agricultural uses to the south, mixed-use commercial areas to the southwest, and residential areas on all sides of the site. Immediately north of the project site, across Decoto Road, are single-family residences. Single-family residences are also east of the project site, as is Alameda County Fire Station 33, across 7<sup>th</sup> Street. In addition, the western portion of the project site is bordered by the Niles subdivision UPRR tracks; just beyond the tracks are the Union City BART station and several multi-family housing developments, including the Station Center Apartments, approximately five stories tall, and the Union Flats Apartments, approximately four stories tall.

Multiple parks and recreational areas are in the vicinity of the project site. Shorty Garcia Park is directly east of the project site. It includes two artificial-turf soccer fields, a playground, and basketball courts. Charles F. Kennedy Community Center and Park is a large park and playground located approximately 0.2 mile west of the project site. Several smaller parks, such as Willow Park (0.1 mile east of the project site), Decoto Plaza Park (0.4 mile north), and Fred Castro Park (0.3 mile north), are scattered throughout the surrounding area. Quarry Lakes Regional Recreational Area, located 1.2 miles south of the project site, is managed by the East Bay Regional Parks District. In addition, Garin and Dry Creek Regional Parks are approximately 0.6 mile northeast of the project site; these are also managed by the East Bay Regional Parks District.

Several schools are within proximity of the project site, including Guy Emanuele Jr. Elementary School (0.15 mile east), New Haven Adult School (0.2 mile north), and James Logan High School (0.5 mile west).



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**Figure 3-1**  
**Project Location**





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Figure 3-2  
Project Site and Surrounding Land Uses

Existing industrial and manufacturing uses are located south of the project site. Companies such as Hartung Glass, Cold Storage Manufacturing, Conklin & Conklin, and Im-Link Corporation reside in these buildings.

Alameda Creek is approximately 1.2 miles west of the project site.

Figure 3-3 includes photographs of the existing land uses that surround the project site.

### 3.3.3 Existing Site Characteristics and Site Conditions

The 26.5-acre project site consists of vacant and industrial uses, including approximately 95 parking spaces. Of the 26.5 acres, 2.0 acres consist of existing and vacant industrial uses; 6.4 acres consist of surface parking lots, asphalt or concrete storage lots, a roadway, and railroad spur improvements; 12.3 acres consist of agricultural areas; 2.0 acres consist of annual grassland; 1.1 acres consist of landscaped areas; and 2.7 acres consist of ruderal areas.

Figure 3-4 shows the six APNs on the project site, and Figures 3-5a and 3-5b are photographs of the existing uses on the project site.

The existing uses on each APN are described below.

- APN 87-21-5-2: This 7.4-acre parcel was previously occupied by Air Liquide and used as an industrial helium and gas facility. It currently contains two vacant industrial buildings, totaling approximately 47,000 sf, and six large, above-ground steel tanks. The buildings and structures within this APN were constructed between approximately 1968 and 2009.
- APN 87-21-13-1: This 0.8-acre parcel is occupied by one approximately 2,600 sf vacant industrial building, which was constructed in the mid-1980s.<sup>1</sup>
- APN 87-21-13-2: This 0.9-acre parcel is currently occupied by Niles subdivision UPRR spurs, which were constructed in approximately 1965.
- APN 87-23-10: This 0.6-acre parcel is currently occupied by Niles subdivision UPRR spurs, which were constructed in approximately 1965.
- APN 87-23-12: This 1.9-acre parcel is occupied by one approximately 36,900 sf building, which was constructed in the mid-1980s.
- APN 87-23-13-2: This 14.9-acre parcel includes predominantly agricultural fields as well as an improved parking and storage area.
- There are approximately five to eight employees working at the project site on any given day at APN 87-23-12; there are no employees within any other portions of the project site. There are no existing residents within the project site.

The project site ranges in elevation from approximately 50 feet above mean sea level (msl) in the western portion of the site to approximately 63 feet above msl in the eastern portion of the site.<sup>2</sup>

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<sup>1</sup> Berlogar Stevens & Associates. 2017. *Due Diligence–Level Geotechnical Investigation, Airgas/Williams Mixed Use, Decoto Road and 7<sup>th</sup> Street, Union City, California*. October 2017.

<sup>2</sup> ENGEO. 2016. *Phase I Environmental Site Assessment – Zwissig Way Parcels, Union City, California*. April.



**View A:** View of the existing residential uses located north of the project site across Decoto Road from the northern perimeter of the project site.



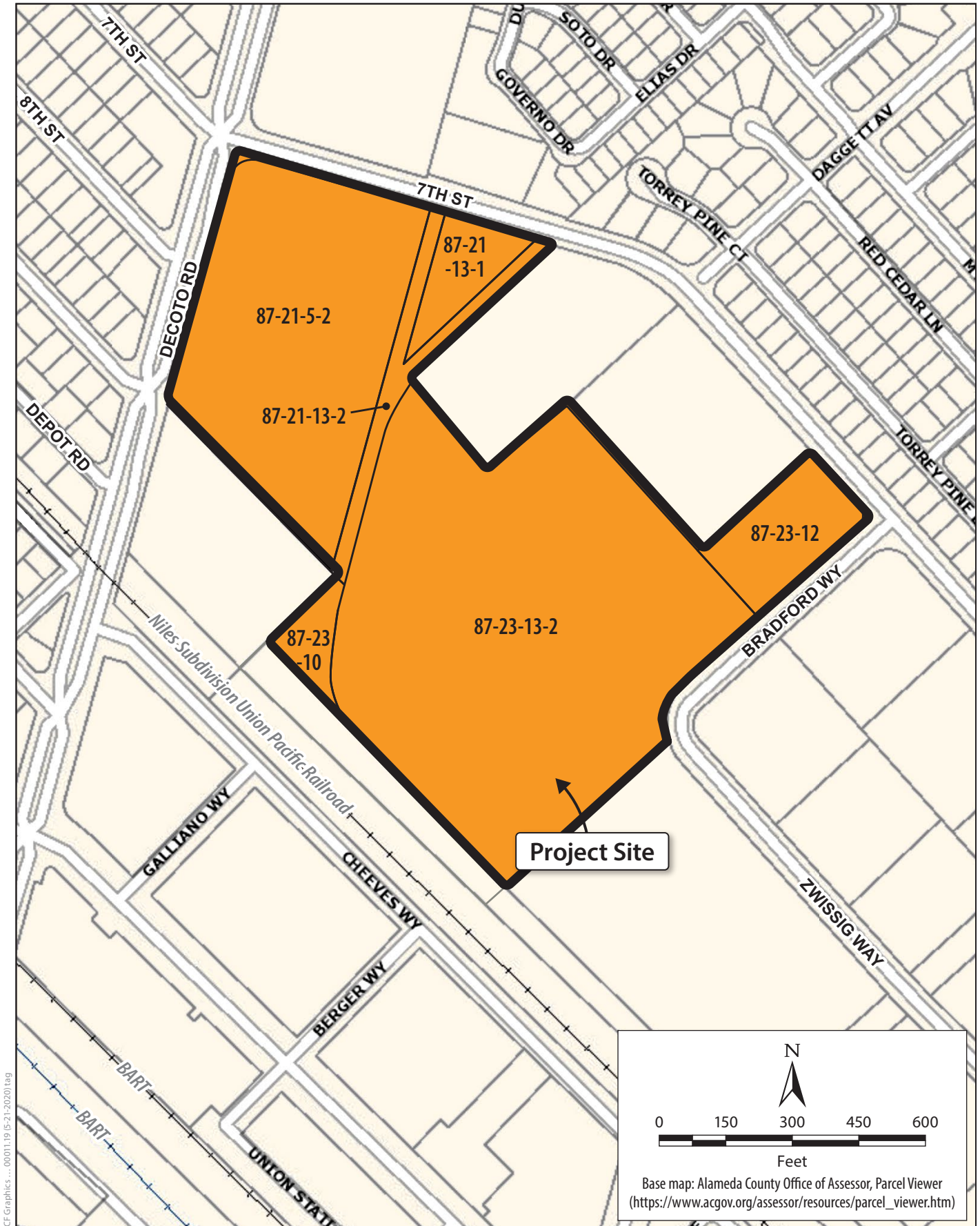
**View B:** View of the Niles Subdivision Union Pacific Railroad tracks and the existing residential uses located west of the project site from the western perimeter of the project site.

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Source: ICF, 2020.



**Figure 3-3**  
**Existing Off-Site Views**



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Figure 3-4  
Parcel Map



PROJECT SITE



**View A:** View of the industrial building on APN 87-21-13-1 and buildings previously occupied by Air Liquide on APN 87-21-5-2, looking west at the project site from 7th Street.



PROJECT SITE



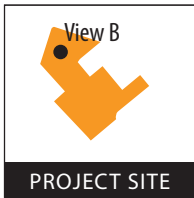
**View B:** View of industrial building located on APN 87-23-12, looking north at the project site from Bradford Way.

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Source: ICF, 2020.



**Figure 3-5a**  
**Existing On-Site Views**



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Source: ICF, 2020.

**Figure 3-5b**  
**Existing On-Site Views**



A portion of the project site has a history of contamination and has undergone a series of environmental investigations. Several reports that document the findings are summarized below. Site investigations were conducted for different portions of the project site at various times. Based on the data reviewed, the project site contains elevated pesticide concentrations in soils; elevated concentrations of volatile organic compounds (VOCs) in soil gas; residual concentrations of total petroleum hydrocarbon (TPH), VOCs, and polychlorinated biphenyls (PCBs) in soils; and residual VOC concentrations in groundwater. In addition, remediation equipment is located in portions of the project site that would require removal or relocation prior to redevelopment. This includes numerous groundwater wells and piping associated with remediation of an off-site historic VOC release known as the McKesson plume.

According to a 2019 Environmental Data Resources (EDR) database search conducted to supplement/update the information found in the aforementioned reports/investigations, multiple sites are listed (in various databases) as being within the site or immediately adjacent.<sup>3</sup> The sites listed include Leaking Underground Storage Tank; Spills, Leaks, Investigations, and Cleanup; Voluntary Cleanup; EnviroStor; and Superfund sites. A detailed analysis of these sites is included in Section 4.7, *Hazards and Hazardous Materials*.

Groundwater at the project site has been identified between approximately 28 and 70 feet below the ground surface.<sup>4,5</sup> A recent review of historic monitoring found the minimum depth to groundwater to be approximately 25 feet, with an average depth of 30 to 35 feet.<sup>6</sup> A former chemical facility with a history of releases was identified just east of the project site; this site was under the purview of the Regional Water Quality Control Board between 1971 and 1986 for halogenated VOC releases to groundwater. The same halogenated VOCs released from this property have been detected in the groundwater monitoring wells on the project site.<sup>7</sup> There are approximately 22 existing groundwater monitoring wells on the project site.

Currently, the project site has approximately 10.5 acres (457,380 sf) of impervious surfaces (approximately 40 percent of the site) and 16.0 acres (696,960 sf) of pervious surfaces (approximately 60 percent of the site).

### 3.3.3.1 Existing General Plan and Zoning Designations

The project site is identified in the newly updated General Plan as SEMU. The SEMU land use designation allows for a range of uses, including light industrial, research and development, office, retail and entertainment, hotel, residential, and public uses. The land use designation was created to encourage an urban mixed-use environment where people could live, work, and shop in proximity to the BART station. The allowable floor area ratio (FAR) range for buildings within this designation is 0.40 to 3.0. The allowable residential density is a minimum of 30 dwelling units per acre, with an average density of no less than 45 density units per acre.

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<sup>3</sup> Environmental Data Resources. 2019. *Union City Station East Project – The EDR Radius Map Report with GeoCheck*. Inquiry Number: 5661694.2s. Shelton, CT. Prepared for ICF.

<sup>4</sup> ENGeo. 2016. *Phase I Environmental Site Assessment – Zwissig Way Parcels, Union City, California*. April.

<sup>5</sup> ENGeo. 2014. *Phase I Environmental Site Assessment – 33945 7<sup>th</sup> Street, Union City, California*. October.

<sup>6</sup> ENGeo. 2016. *Phase I Environmental Site Assessment – Zwissig Way Parcels, Union City, California*. April.

<sup>7</sup> Hadley Aldrich. 2017. *Report on ASTM Phase I Environmental Site Assessment and Phase II Assessment, Union City Properties – APNs: 0087-0021-005-02, 087-0021-031-01, and 087-0021-031-02*. December.

The project site is zoned as RDC. The purpose of the RDC district is to provide space for a flexible range of activities that have few or no nuisance characteristics. RDC is a denser development designation because of proximity to the BART station and the station district. All buildings within this zoning designation must be a minimum of two stories, with two floors that can be fully occupied upon completion of construction. Applications for development of sites within 2,000 feet of a BART station, like the project site, must include a master plan that demonstrates how the FAR can be intensified up to a minimum of 0.40 and a maximum of 2.0.

### 3.3.4 Existing Site Circulation, Transit, and Access

Regional vehicular access to the project site vicinity is provided from Interstate 880 (I-880), which is approximately 2 miles west of the project site. Main access to the actual project site is provided by Decoto Road and 7<sup>th</sup> Street.

Decoto Road is a four-lane, east–west road on the northern perimeter of the project site. A sidewalk is provided on both sides of the street, and a Class II bike lane is provided in each direction. As mentioned previously, Decoto Road provides access to the Union City Intermodal Station, which includes the Union City BART station and a bus hub. The Alameda-Contra Costa Transit District (AC Transit) operates Lines 99, 200, 232, and 801 along the entirety of Decoto Road, while Union City (UC) Transit operates Routes 4, 8, and 9. The project site is serviced by two AC Transit stops (at Decoto Road and 7<sup>th</sup> Street and at Decoto Road and Depot Road). In addition, Dumbarton Express (DBX) operates two routes, DB and DB1, which serve the UC BART station via the Dumbarton Bridge; the nearest DBX bus stop to the project site is on Station Way, adjacent to the UC BART station.

The other access route to the project site is 7<sup>th</sup> Street, a two-lane, undivided north–south road. A two-way left-turn lane is provided along some sections of 7<sup>th</sup> Street on the eastern perimeter of the project site. A sidewalk is generally provided on both sides of the street (until reaching Daggett Avenue, at which point the sidewalk ends on the east side); however, no bicycle facilities are provided. UC Transit operates Route 4 along the entirety of 7<sup>th</sup> Street.

The Union City BART station is west of the western perimeter of the project site, across Cheeves Way (adjacent to the Niles subdivision UPRR tracks), and the existing residential developments. BART services the City of Union City and connects the San Francisco Peninsula with Berkeley, Oakland, Fremont, Walnut Creek, Dublin/Pleasanton, and many other cities throughout the Bay Area. The Union City BART station is accessible via Union Square. Access to the BART station is currently from the west because of the location of the Oakland subdivision UPRR tracks immediately east of the station. Sidewalks are provided at all access points to the station, and all access roads have bicycle lanes in both directions. There are transit stops for AC Transit, UC Transit, and the Dumbarton Express adjacent to the entrance to the BART station.

Regional bus transit in the area is provided by AC Transit. The nearest bus stop is at Decoto Road and 7<sup>th</sup> Street, in the northeast corner of the project site. Local bus transit is provided by UC Transit along Decoto Road, with the nearest stop also at Decoto Road and 7<sup>th</sup> Street.



### 3.3.5 Existing Landscaping and Site Conditions

Landscaping on the project site is limited to trees and ornamental landscape features. The project site contains approximately 68 trees, 47 of which are considered protected trees.<sup>8,9</sup> The trees are located primarily along the northern and eastern perimeters of the project site. The existing tree species include coast live oak, Peruvian pepper tree, and blue gum.

### 3.3.6 Existing Utility Infrastructure

#### 3.3.6.1 Potable Water

The project site is served by the Alameda County Water District (ACWD). A 12-inch water main in Bradford Way and Zwissig Way, along the project boundary, loops into a 14-inch water main in 7<sup>th</sup> Street. In addition, a 24-inch water main is located in Decoto Road. There are no main lines for recycled water near the project site.

#### 3.3.6.2 Stormwater

There are several storm drains around the perimeter of the project site, including a 21-inch storm drain in Decoto Road, a 27-inch storm drain in 7<sup>th</sup> Street, and a 42- to 45-inch storm drain in 7<sup>th</sup> Street. In addition, there are 15-inch and 18-inch storm drain pipes in Bradford Way and Zwissig Way, respectively. These pipes drain to Line M-3, which, in turn, drains into Line M, then into Alameda Creek.

#### 3.3.6.3 Wastewater

The project site is served by the Union Sanitary District (USD). An 8-inch sanitary sewer main is located along the northeastern boundary of the project site. In addition, a 10-inch sanitary sewer main, located in the Bradford Way and Zwissig Way loop, flows to a 15-inch main in 7<sup>th</sup> Street. This sanitary sewer main eventually reaches a larger trunk sewer main in Alvarado-Niles Road that continues to the USD Wastewater Treatment Plant. An existing 8-inch sanitary sewer line runs from 7<sup>th</sup> Street south through the center of the project site and flows to an 8-inch sanitary sewer main in Decoto Road.

#### 3.3.6.4 Natural Gas and Electric

Pacific Gas and Electric (PG&E) provides all natural gas and electric infrastructure in the City. East Bay Community Energy provides electricity to customers in Alameda County using PG&E infrastructure; if individuals choose to opt out of East Bay Community Energy, PG&E provides electricity. PG&E provides natural gas to the project site. All buildings within the project site have existing connections to infrastructure; the vacant areas do not.

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<sup>8</sup> Under the Union City Municipal Code, Chapter 12.16.170, Tree Conservation, protected trees are (a) all trees that have a 35-inch or greater trunk circumference or, in the case of multi-trunk trees, a total of 70 inches or more for the circumference of all trunks where trees are located on residential property; (b) all trees that have a 12-inch or greater trunk circumference when removal relates to any transaction for which zoning approval or subdivision approval is required; (c) any tree that existed at the time of zoning approval or subdivision approval and was a specific subject of such approval or otherwise covered by paragraph “b” of this subdivision; (d) any tree that was required to be planted by the terms of a zoning approval or a subdivision approval; (e) all trees that have a 12-inch or greater trunk circumference on a vacant lot or undeveloped property; and f) all trees that have a 12-inch or greater trunk circumference on any developed commercial, office, or industrial property.

<sup>9</sup> ICF. 2020. *Tree Inventory for the Station East Residential/Mixed Use Project*. March.

### 3.3.6.5 Telecommunications

There are numerous telecommunication providers in the City for DSL, wireless, cable, and fiber optic services. Of the approximately 20 internet service providers in the City, 10 offer residential services and 18 offer business services. Service providers such as AT&T, XFINITY from Comcast, Sonic, and EarthLink, among many others, provide telecommunication services to residents and businesses in the City. Underground conduits are located in the vicinity of the project site.<sup>10</sup>

### 3.3.6.6 Garbage, Recycling and Organics Collection Service

Solid waste collection services in Union City are provided pursuant to the City's exclusive franchise agreement with Republic Services. The Republic collection vehicles deliver material collected to the Fremont Recycling and Transfer Station in Fremont. The solid waste is then transferred to long-haul transport trucks and delivered to the Altamont Landfill and Resource Recovery Facility in Livermore. A disposal agreement with Waste Management, owner/operator of the Altamont Landfill, ensures long-term disposal capacity at the landfill for Union City and neighboring jurisdictions. Commercial (Republic) and residential (Tri-CED) organics are processed at Republic's Newby Island Composting facility. Weekly curbside collection of residential recyclables in the City is provided by Tri-CED. Single stream recycling allows residents to place cans, bottles, paper, plastics, etc. in the same receptacle for weekly collection. Tri-CED operates a Materials Recovery Facility, located at 33377 Western Avenue in Union City, where all single-stream residential collection recycling materials are processed.

## 3.4 Proposed Project

As shown in Figure 3-6, the project proposes demolition of buildings and surface parking lots and development of up to 974 new residential units (apartments, condominiums, and townhomes) totaling approximately 1,057,770 sf, approximately 38,400 sf of residential amenity space, approximately 30,800 sf of commercial space, and approximately 720,324 sf of decks, private open space, garages, and corridor space, for a total development of approximately 1,847,294 sf. The project site would include 11 PAs. The project would include 60 studios, 334 one-bedroom units, 372 two-bedroom units, 128 three-bedroom units, and 80 four-bedroom units.

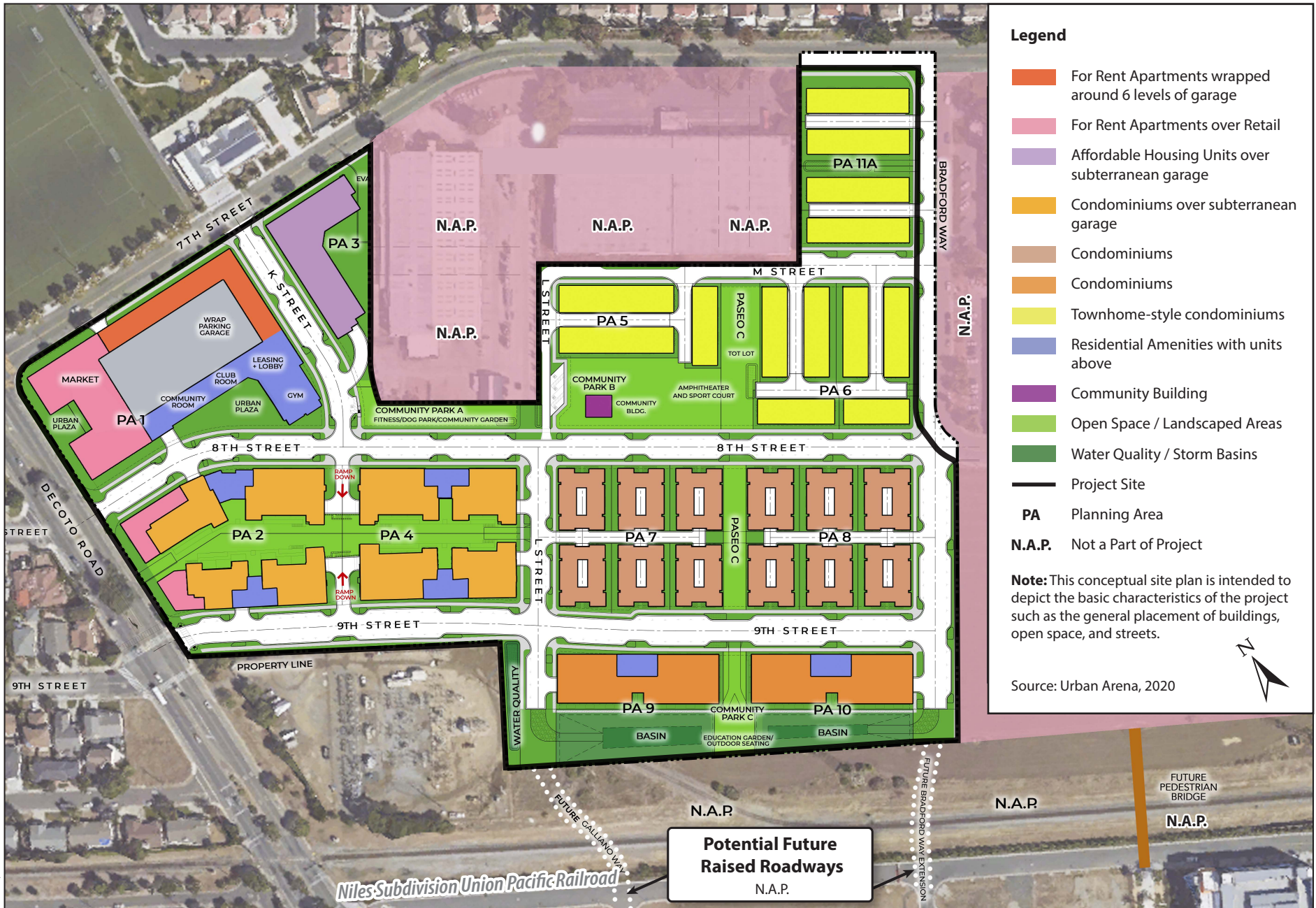
The project features are summarized in Table 3-1, and the housing density by PA is summarized in Table 3-2.

### 3.4.1 Proposed Site Plan

The description of the project's uses, including the summary information above and detailed information below, is based on the conceptual site plan shown in Figure 3-6. This plan is subject to refinements after review by the City Planning Division, in collaboration with other City departments, through the development review process.

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<sup>10</sup> BroadBandNow. 2020. *Internet Providers in Union City, California*. Available: <https://broadbandnow.com/California/Union-City?zip=94587#show=business>. Accessed: January 30, 2020.



**Figure 3-6**  
**Proposed Project Conceptual Site Plan**

**Table 3-1. Proposed Project Features**

Feature	PA 1 Apt	PA 2 and PA 4 Condo	PA 3 Apt	PA 5 and PA 6 TH	PA 7 and PA 8 Condo	PA 9 and PA 10 Condo	PA 11A TH	Total
<b>Building Square Footage (total)</b>								<b>1,835,100 sf<sup>a</sup></b>
<i>Residential Square Footage</i>	216,190	264,064	80,175	130,285	189,720	110,940	66,396	1,057,770 sf
<i>Commercial Square Footage</i>	23,040	7,730	0	0	0	0	0	30,770 sf
<i>Residential Amenity Square Footage</i>	17,242	15,034	1,675	0	0	4,480	0	38,431 sf
<i>Deck/Private Open Space Square Footage</i>	11,530	53,576	4,464	12,408	18,408	7,088	6,004	113,478 sf
<i>Garage Square Footage</i>	198,563	171,808	19,605	32,572	38,880	39,026	16,352	516,806 sf
<i>Corridor Square Footage</i>	34,760	38,095	11,785	0	0	5,400	0	90,040 sf
<b>Dwelling Units (total)</b>	<b>253<sup>d</sup></b>	<b>270</b>	<b>123<sup>c</sup></b>	<b>72</b>	<b>120</b>	<b>100</b>	<b>36</b>	<b>974 units</b>
<i>Studio</i>	30	0	30	0	0	0	0	60
<i>One-Bedroom Units</i>	121	122	63	0	0	28	0	334
<i>Two-Bedroom Units</i>	102	118	30	18	48	48	8	372
<i>Three-Bedroom Units</i>	0	30	0	18	48	24	8	128
<i>Four-Bedroom Units</i>	0	0	0	36	24	0	20	80
Vehicle Parking Spaces <sup>b</sup>	573	487	93	172	222	165	79	1,791 spaces
Bicycle Parking Spaces	136	176	26	32	40	32	16	458 spaces

Source: Integral Communities. 2020. *Site Plan Calculations*.

a. Subtotals above may not equal total square footage because of rounding.

b. Five percent of the parking spaces in PAs 1, 2, 3, and 4 would be for electric vehicles.

c. PA 3 would provide entirely affordable housing units, including 30 studios, 63 one-bedroom units, and 30 two-bedroom units.

d. Of the 253 housing units in PA 1, 24 would be affordable housing units.

Notes: PA = planning area; sf = square feet; Apt = apartments; TH = townhomes; and Condo = condominiums

**Table 3-2. Housing Density by Planning Area**

<b>Planning Area</b>	<b>Dwelling Units</b>	<b>Gross Acreage</b>	<b>Net Acreage</b>	<b>Net Density (Dwelling Units per Acre)<sup>a</sup></b>
Planning Area 1	253	3.44	2.68	94.40
Planning Areas 2 and 4	270	5.34	3.54	76.27
Planning Area 3	123	1.83	0.96	127.90
Planning Areas 5 and 6	72	4.90	2.41	29.88
Planning Areas 7 and 8	120	5.20	3.32	36.14
Planning Areas 9 and 10	100	2.30	1.36	73.53
Planning Area 11A	36	1.95	1.33	27.07
Basin	0	1.54	0	0
<b>Total</b>	<b>974</b>	<b>26.50</b>	<b>15.60</b>	<b>62.44</b>

Source: Integral Communities. 2020. *Net Density Exhibit*.

<sup>a</sup> The net density is based on the net acreage (not the gross acreage) for each planning area. Net acreage excludes public streets, rights of way, and dedications of land for public purposes.

Most of the 34 proposed buildings would be between three and five stories tall. As shown in Figure 3-6, townhomes would be located in the southern portion of the project site; condominiums would be located in the central and western portions of the project site; for-rent apartments and affordable housing would be located in the northeastern portion of the project site; commercial uses would be located along the northern portion of the project site; and amenities, open spaces, and parking would be located throughout the site. The FAR on the mixed-use portions of the site would range from 1.76 to 2.01, with an average of 1.86.

The proposed project would also include several pedestrian, bicycle, and vehicular improvements, including construction of roads to connect the project site to other roads (e.g., Zwissig Way, Bradford Way, Decoto Road, 7<sup>th</sup> Street). Project site access and circulation are discussed in detail below in Section 3.4.4, *Site Access, Circulation, and Parking*. In addition, the proposed project would include public open spaces throughout the site, a paseo, and other amenities, as discussed in detail in Section 3.4.5, *Open Space, Amenities, and Landscaping*. Furthermore, the project would also include on-site stormwater treatment facilities and detention basins as well as associated site improvements, such as hardscape and landscape improvements.

### **3.4.1.1 Planning Area 1**

PA 1 is a proposed 3.4-acre mixed-use retail and residential PA. This PA would be in the northeast corner of the project site and bordered by 7<sup>th</sup> Street to the east, Decoto Road to the north, the proposed 8<sup>th</sup> Street to the west, and the proposed K Street to the south. PA 1 would provide up to 253 apartment units, including 24 affordable units, in a five-story building with a maximum height of 88 feet that would be wrapped around a six-level parking garage with 569 spaces; four on-street parking spaces would also be provided. PA 1 would also include 4,860 sf of retail space, two urban plazas, and an 18,180-sf market, as well as rooftop amenities, possibly a pool. In addition, PA 1 would be the site of the proposed project's leasing lobby, gym, club room, and community room, along with a total of 136 bicycle parking spaces (120 long-term spaces and 16 short-term spaces).

### **3.4.1.2 Planning Areas 2 and 4**

PA 2 and PA 4 would contain residential and retail uses as well as associated amenities on 5.3 acres. The proposed PAs would be bordered by 8<sup>th</sup> Street to the east, L Street to the south, 9<sup>th</sup> Street to the west, and Decoto Road to the north. PA 2 would provide 136 condominium units and approximately 7,730 sf of retail space along the Decoto Road frontage at a maximum building height of 66 feet. PA 4 would provide 134 condominium units. In total, PA 2 and PA 4 would provide 457 vehicle parking spaces within a two-level, partially subterranean parking garage; 30 on-street parking spaces; and 160 long-term bicycle parking spaces and 16 short-term bicycle parking spaces, a total of 176 bicycle parking spaces. In addition, amenities such as an outdoor kitchen and dining area, urban plaza and outdoor work spaces would be located within the courtyards of PA 2 and PA 4.

### **3.4.1.3 Planning Area 3**

PA 3 is a proposed 1.8-acre residential PA that would be located in the northeast corner of the project site and bordered by 7<sup>th</sup> Street to the east, K Street to the north, and the project site boundaries to the south. PA 3 would provide 123 affordable housing units over a single-level subterranean parking garage with 59 vehicle parking spaces and 26 bicycle spaces, including 10 long-term bicycle parking spaces and 16 short-term bicycle parking spaces; 34 on-street vehicle parking spaces would also be provided. The building in PA 3 would be five stories, with a maximum height of 68 feet. In addition, amenities such as an outdoor play area would be provided.

### **3.4.1.4 Planning Areas 5 and 6**

PA 5 and PA 6 would contain residential uses on 4.9 acres. The proposed PAs would be located in the southeastern portion of the project site and bordered by Bradford Way to the south, 8<sup>th</sup> Street to the west, the proposed L Street to the north, and the proposed M Street to the east. PA 5 would include 27 townhomes, with buildings averaging three stories and having maximum heights of 39 feet. Community Park B, including four parking spaces, would be immediately adjacent to the western portion of PA 5. PA 6 would include 45 townhomes, with buildings averaging three stories. In total, PA 5 and PA 6 would provide 144 vehicle parking spaces in private garages, 28 on-street vehicle parking spaces, and 32 short-term bicycle parking spaces. A paseo would run between PA 5 and PA 6.

### **3.4.1.5 Planning Areas 7 and 8**

PA 7 and PA 8 would contain residential uses on 5.2 acres. The proposed PAs would be located in the southwestern portion of the project site and bordered by Bradford Way to the south, 9<sup>th</sup> Street to the west, L Street to the north, and 8<sup>th</sup> Street to the east. PA 7 and PA 8 would each include 60 condominiums, averaging four stories in height and having a maximum height of 55 feet. In total, PA 7 and PA 8 would provide 192 vehicle parking spaces in private garages, 30 on-street parking spaces, and 40 short-term bicycle parking spaces. In addition, a paseo would run between PA 7 and PA 8.

### **3.4.1.6 Planning Areas 9 and 10**

PA 9 and PA 10 would contain residential uses on 2.3 acres. The proposed PAs would be in the southwestern portion of the project site and bordered by Bradford Way to the south, 9<sup>th</sup> Street to the east, L Street to the north, and the project site boundary to the west. PA 9 and PA 10 would each include 50 condominiums and residential amenities, averaging four stories and having a maximum height of 55 feet. Interior amenities in PA 9 and 10 would include a fitness center and lounges. In

total, PA 9 and PA 10 would provide 108 vehicle parking spaces in a parking structure, 57 on-street parking spaces, and 32 short-term bicycle parking spaces. Community Park C and the educational garden and outdoor seating area would be between the two PAs. Two stormwater basins would be immediately west of PA 9 and PA 10.

### **3.4.1.7 Planning Area 11A**

PA 11A is a proposed 2.0-acre residential PA in the southeastern corner of the project site and bordered by 7<sup>th</sup> Street to the east, the project site boundary to the north, Bradford Way to the south, and M Street to the west. PA 11A would include 36 townhomes, averaging three stories and having a maximum height of 39 feet. PA 11A would provide 72 vehicle parking spaces in private garages, seven on-street parking spaces, and 16 short-term bicycle parking spaces.

### **3.4.1.8 Basins**

Two large stormwater basins would be used as bio-retention areas in the western portion of the project site and cover approximately 1.42 acres.

## **3.4.2 Anticipated On-Site Employees and Residents**

The proposed project is anticipated to temporarily employ between 10 and 951 employees during construction. During normal operations, after full buildout, the proposed project is anticipated to employ approximately 75 employees. After full buildout, there would be approximately 2,445 residents at the project site.<sup>11</sup>

## **3.4.3 Rezoning and General Plan Amendment**

The project proposes a General Plan amendment to update land use targets for the Station East area, reduce the minimum density to 25 units per acre, provided a certain average density is maintained, and minor updates for consistency with the related Specific Plan Amendment. The project includes a related Specific Plan Amendment to the DIPSA Specific Plan for consistency with the 2040 General Plan. The amendment includes the addition of goals and policies that support the development of Station East as a high-density, transit-oriented area for jobs and housing that reflects new land uses, circulation patterns, design attributes, etc. for the area. An effort to comprehensively update the DIPSA Specific Plan (referred to as the Station District Specific Plan) is currently underway. It is anticipated that any proposed Specific Plan amendments approved as part of the project will be integrated into the Station District Specific Plan effort currently underway.

The project site is zoned Research and Development Campus (RDC). The project scope also includes creation of a new zoning designation, Station East Mixed Use (SEMU), for consistency with the General Plan designation of SEMU and related General Plan and Specific Plan existing and proposed policies for the Station East subarea. A zoning map amendment is also proposed to create a new zoning district for the project site.

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<sup>11</sup> According to the General Plan EIR, chapter 2, *Project Description*, 2.51 persons are expected to live in each new multi-family residential unit. Source: Rincon Consultants, Inc. *2040 Union City General Plan Update Environmental Impact Report*. November 2019.

## 3.4.4 Site Access, Circulation, and Parking

### 3.4.4.1 Vehicular

The project site would be accessed primarily from Decoto Road and 7<sup>th</sup> Street. In addition, the project site would also be accessible from Bradford Way and Zwissig Way, which are adjacent to 7<sup>th</sup> Street. Five new internal roads are proposed as part of the project to improve pedestrian, bicycle, and vehicle circulation and access throughout the project site and in surrounding areas. Bradford Way would be extended, providing access to the entire westernmost portion of the project site. In addition, two new roads, K Street and L Street, would be accessible from 7<sup>th</sup> Street; the new roads would run east–west through the project site. A smaller new road, M Street, would be located in the easternmost portion of the project site, adjacent to Bradford Way and improve north-south access and circulation. Two other new roads, 8<sup>th</sup> Street and 9<sup>th</sup> Street, would be the main roads through the project site. These would bisect the project site in the north–south direction, ultimately connecting Decoto Road to Zwissig Way and Bradford Way. A new traffic signal would be incorporated at the 9<sup>th</sup> Street and Decoto Road intersection. The existing traffic signal at the 7<sup>th</sup> Street and Decoto Road intersection would be upgraded. Both of these intersections would include left-turn lanes on Decoto Road and all movements would be allowed. The 8<sup>th</sup> Street and Decoto Road intersection would be controlled by a stop-sign on the 8<sup>th</sup> Street approach and only right-turns would be allowed.

Fire and emergency vehicle access would be provided to the project site from Decoto Road via the proposed 8<sup>th</sup> Street and 9<sup>th</sup> Street as well as via a proposed new Emergency Vehicle Access (EVA) stub to provide access to PA 2. Fire and emergency vehicle access would also be provided to the project site from 7<sup>th</sup> Street via the proposed K Street and L Street, via Bradford Way, and via a proposed EVA stub to provide access to PA 3. Within the project site, fire and emergency vehicle access would be provided via the internal street circulation.

All new streets within the project area would provide one automobile lane in each direction with on-street parallel parking and sidewalks on both sides of the street. Buffered bike lanes would be provided along 9<sup>th</sup> Street and Bradford Way; although the eastbound bike lane on Bradford Way would be without a buffer in the interim condition after the completion of the project but before the redevelopment of the parcels along the south frontage of the street. The project would also provide buffered bike lanes on both sides of 7<sup>th</sup> Street between Decoto Road and Bradford Way within the existing right-of-way by eliminating the on-street parking on one side of the street between K Street and Bradford Way and eliminating on-street parking on both sides of the street between Decoto Road and K Street. The 7<sup>th</sup> Street/Bradford Way intersection would become a protected intersection to facilitate bicycle travel between the buffered bike lanes on Bradford Way and 7<sup>th</sup> Street north of Bradford Way, and a future two-way bike path on 7<sup>th</sup> Street south of Bradford Way. A future two-way bike path would ultimately be provided on the east side of 7<sup>th</sup> Street south of Bradford Way by eliminating on-street parking on one side of the street; however, this is not is not part of the project. The future two-way bike path on 7<sup>th</sup> Street would continue south and connect with the planned path adjacent to the future Quarry Lakes Parkway.

In the western portion of the project site, two future grade-separated roads (not part of the project), Galliano Street and Berger Street, would connect to L Street and Bradford Way, respectively. These streets would cross over the Niles subdivision UPRR tracks and ultimately connect to the Union City BART station. Finally, a future grade-separated pedestrian crossing (not part of the project) could be located west of the project site. The future pedestrian crossing could cross either over or under the Niles subdivision UPRR tracks and connect to the area between the Union Flats Apartments and Station Center Apartments.



### 3.4.4.2 Pedestrian and Bicyclists

Pedestrians and bicyclists would access the project site via the same roads described above in Section 3.3.4, *Existing Site Circulation, Transit, and Access*, and the new proposed roadways described in Section 3.4.4, *Site Access, Circulation, and Parking*. In addition, the project would construct one paseo, Paseo C, which would be approximately 870 feet long, bisecting the project site in the east–west direction and ultimately providing access from 7<sup>th</sup> Street to 9<sup>th</sup> Street. In total, 458 short- and long-term bicycle parking spaces would be provided throughout the project site; the spaces would be scattered between the individual buildings in each PA as well as the community parks. PA 1 would provide approximately 136 bicycle parking spaces, PAs 2 and 4 would provide approximately 176 bicycle parking spaces, PA 3 would provide approximately 26 bicycle parking spaces, PAs 5 and 6 would provide approximately 32 bicycle parking spaces, PAs 7 and 8 would provide approximately 40 bicycle parking spaces, PAs 9 and 10 would provide 32 bicycle parking spaces, and PA 11A would provide approximately 16 bicycle parking spaces.

### 3.4.4.3 Public Transportation

The proposed project would be serviced by the existing forms of public transportation in the vicinity of the project site, as described in Section 3.3.4, *Existing Site Circulation, Transit, and Access*. This includes access to two AC Transit bus stops at Decoto Road and 7<sup>th</sup> Street and at Decoto Road and Depot Road as well as BART, the Dumbarton Express, and UC Transit.

### 3.4.4.4 Railway

The proposed project would include off-site improvements where Decoto Road crosses the Niles subdivision UPRR tracks. It is anticipated that the required improvements would include advanced preemption equipment that will work with existing and proposed traffic signal on both sides of the railroad crossing, as well as signage upgrades.<sup>12</sup> The improvements would also include relocation of the sidewalks and installation of additional concrete panels to widen the crossing and allow pedestrians to cross the Niles subdivision UPRR tracks.

## 3.4.5 Open Space, Amenities, and Landscaping

The description of the project's open spaces is based on the conceptual open space plan shown in Figure 3-7. The proposed project would include a total of approximately 9.83 acres of open space, consisting of 1.83 acres of public parks and a paseo, 1.95 acres of private landscaping, 2.25 acres of semi-private and private open space, 0.96 acres of streetscape landscaping, 1.42 acres of bio-retention areas, and 1.42 acres of retail plazas and promenade.<sup>13</sup> The bio-retention areas would include two large stormwater basins in the western portion of the project site.

The project would include an approximately 870-foot-long paseo that would bisect the project site in the east–west direction. The proposed project would include three community parks: Community Parks A, B, and C. Community Park A would be just east of PA 4 and include a dog park, community garden, and fitness space. Community Park B would be the largest of the four parks and located

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<sup>12</sup> Advanced preemption equipment enables the railroad signal control equipment and the roadway traffic signal control equipment to be interconnected to allow advanced warning. The normal operation of the traffic signals controlling the intersection are preempted to operate in a special control mode well ahead of the approaching trains to ensure that vehicle queues from the adjacent signals clear the railroad tracks prior to the arrival of the trains.

<sup>13</sup> Urban Arena. 2020. *Site Plan | Open Space Calculations*. September 16.



**Figure 3-7**  
**Proposed Open Space Plan**

centrally within the project site. Community Park B would include an outdoor amphitheater and sport court, tot lot, and community building. The outdoor amphitheater would provide space for casual gatherings and other events ; the community building would include an open meeting room and restroom. Community Park C would be between PA 9 and PA 10, at the western end of the project site. Community Park C would include an educational garden and outdoor seating areas. In addition to the three community parks and paseo, the proposed project would also include several other outdoor amenities. A private outdoor kitchen and dining area, urban plaza, and outdoor work space would be within the courtyards of PA 2 and PA 4. PA 1 would include a rooftop amenity space with possibly a pool, two urban plazas, and a 2,500-sf community room.

The project would also include new landscaping along the perimeter of the site as well as between the PAs and roadways. Landscaping would adhere to Chapter 18.112, *Water Efficient Landscape*, of the Union City Municipal Code and include drought-tolerant plants.

The proposed project would include approximately 735 trees when accounting for the 68 existing trees to be removed (including 47 protected trees).<sup>14</sup> The species of the trees to be planted would include, but not be limited to, Skinny Genes English oak, sweet bay standard, and burgundy willow myrtle.

### 3.4.6 Lighting and Signage

The proposed project would include street lighting on all new streets, and all proposed buildings would have exterior light fixtures. Signage and wayfinding would be provided at the entrances to all parking garages, at all site entrances, and along walkways and bicycle paths.

### 3.4.7 Utilities and Infrastructure

#### 3.4.7.1 Mechanical Equipment

The proposed project would include individual mechanical systems for each proposed building. The mechanical systems for buildings located in PAs 1, 2, 3, 4, 9, and 10 would be mounted on the roof. The mechanical systems for buildings located in PAs 5, 6, 7, 8, and 11A would be located partially on the ground and partially on the roof. All roof-mounted equipment would be screened but would not be fully enclosed. Ground-level equipment would be partially screened with landscaping. All heating, ventilation, and air-conditioning (HVAC) units would be equipped with Minimum Efficiency Reporting Value (MERV) 13 filters.

The proposed project would include one life-safety diesel generator that would have a standby range between 485 and 600 kilowatts (kW), with appropriate diesel particulate filters for engine exhaust; the generator would be located on the fifth or sixth floor of the parking garage in PA 1. The generator would be located in the southeast corner of the garage (near K Street), as far from existing off-site residential uses as possible. In addition, the proposed project would include a battery backup, consisting of seven lithium ion batteries in PAs 2, 3, 4, 9, and 10. The lithium ion batteries would be located in cabinets installed in the electrical room within each building. In the unlikely event that a cabinet becomes damaged, the lithium ion batteries would not leak. Because lithium ion batteries do not off-gas hydrogen, an exhaust system is not required by either the National Fire Protection Association or the current California Building Standards Code for rooms or cabinets containing only

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<sup>14</sup> Urban Arena. 2020. *Conceptual Tree Plan*. January 30.

these types of batteries. The rooms containing the batteries would be protected by a pre-action sprinkler system and have a minimum 1-hour fire rating. It is anticipated that generator/battery system testing would consist of approximately 15 minutes of testing each month.

### **3.4.7.2 Potable Water<sup>15</sup>**

Water in Union City is provided by the ACWD. An existing 12-inch water line in Bradford Way and Zwissig Way loops into a 14-inch water main in 7<sup>th</sup> Street. The existing lines in Bradford Way and 7<sup>th</sup> Street (south of Daggett Avenue) are asbestos cement pipe (ACP). No excavations or crossings under the ACP are proposed as part of the project. If utility installations below the ACP are required for the project, a portion of the existing ACP main would be replaced by ACWD with PVC or steel pipe at the project applicant's expense.

The proposed project would connect to the existing 24-inch water main in Decoto Road, the 14-inch water main in 7<sup>th</sup> Street, and the 12-inch water main in Bradford Way and Zwissig Way. Mains within private streets on the project site would connect to the new water mains in 8<sup>th</sup> Street to minimize connections within existing streets. In total, approximately 6,500 linear feet of new water mains would be constructed as part of the project. Private sub-metering of all master metered units would be installed, in compliance with Water Code Division 1, Chapter 8, Article 5 for the proposed residential units served by master water meters. In addition, any existing water services that would not be used under the proposed project would be removed by ACWD.

### **3.4.7.3 Wastewater<sup>16</sup>**

USD provides wastewater collection and treatment services within Union City. As previously mentioned, two existing 8- and 10-inch sanitary sewer lines are adjacent to the project site and an existing 8-inch sanitary sewer line runs from 7<sup>th</sup> Street along the alignment of the new L Street. The proposed project would relocate the existing line along L Street. The proposed project would remove three of the 6-inch sewer laterals stubbed to the project site on Bradford Way and Zwissig Way, which were originally intended for industrial use. To serve the development, the project would connect to the existing 8-inch sewer main along L Street and the 10-inch sewer main in Bradford Way and Zwissig Way from multiple new connections, with new manholes at each of these connection points. It is likely that the sanitary sewer mains in the private alleys of the project site would be grouped together to connect to the on-site sanitary sewer main and minimize the amount of work in existing streets. The proposed project would also include abandonment and removal of an existing on-site septic system and leach field. ACWD drilling permits would be required prior to the start of any subsurface drilling activities associated with wells, exploratory holes, or other excavations. All permitted work would require scheduling for inspection; therefore, all drilling activities would be coordinated with ACWD prior to the start of any fieldwork.

### **3.4.7.4 Stormwater**

Several storm drains are located around the perimeter of the project site, including a 21-inch storm drain in Decoto Road, a 27-inch storm drain in 7<sup>th</sup> Street, and a 42- to 45-inch storm drain in 7<sup>th</sup> Street. In addition, there are storm drain pipes ranging from 15 to 21 inches in Bradford Way and Zwissig Way. These pipes all eventually drain into Alameda Creek.

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<sup>15</sup> CBG Engineers. 2020. *Preliminary Utility Study – Union City, California*. January 28.

<sup>16</sup> Ibid.

Bio-retention areas would be located within the project site along 7<sup>th</sup> Street and Bradford Way, primarily within the public right of way, to treat runoff from public streets and capture and naturally filter urban contaminants from the site's stormwater runoff. In addition, the project would include two storm basins, totaling approximately 1.42 acres, in the western portion of the project site to treat stormwater. Stormwater runoff would be collected from the roofs of the proposed buildings and all paved areas. The project also proposes to construct stormwater treatment facilities for the north side of existing Bradford Way along the project frontage. Ultimately, the stormwater would be directed to the bio-retention areas, which would provide biological treatment for the stormwater and prevent its discharge from the site.

Upon project completion, the project site would have approximately 21.3 acres (927,830 sf) of impervious surfaces (approximately 80 percent of the site) and 5.2 acres (226,510 sf) of pervious surfaces in the form of open space areas, parks, and gardens (approximately 20 percent of the project site). The project site is located within a PDA in the vicinity of the Union City Bay Area Rapid Transit station, is adjacent to a high quality transit corridor (Decoto Road), has a minimum density of more than 30 dwelling units per acre, it qualifies as a Category C special project, and has less than 10 percent at-grade surface on-street parking. Therefore, in accordance with the Category C special project classification, the project is permitted to use some non-LID treatment measures to comply with water quality requirements. The project would use LID treatment reduction credits under Special Projects Category C, Transit-Oriented Development, to treat stormwater where areas do not have enough open space to allow traditional bio-retention areas. After using all non-LID treatment credits available, the project would be required to provide approximately 13,000 sf of bio-retention areas. For consistency with Alameda Countywide Clean Water Program requirements, the project applicant would be required to identify whether preferred strategies are feasible on-site. However, the potential for these methods to be feasible at the project site is unlikely due to insufficient space to meet bioretention treatment sizing requirements and spacing requirements between utilities and landscaping.

#### **3.4.7.5 Natural Gas and Electric**

The project site would continue to be served by PG&E for natural gas and East Bay Community Energy for electricity.

#### **3.4.7.6 Telecommunications**

The project site would continue to be served by the existing telecommunication providers.

#### **3.4.7.7 Refuse and Recycling**

Solid waste collection services in the City are provided pursuant to the City's exclusive franchise agreement with Republic Services. It is anticipated that Tri-CED (residential uses) and Republic (commercial uses) would collect organics from the project site, and that other solid waste services would be provided by Republic.

#### **3.4.7.8 Monitoring Wells**

All of the existing 22 groundwater monitoring wells on the project site would be protected or destroyed in accordance with ACWD requirements.

### 3.4.8 Sustainability and Energy Efficiency

The proposed project would comply with all applicable City and State green building measures, including Title 24, Part 6, the California Energy Code baseline standard requirements, and the most recent version of the California Green Building Standards Code, commonly referred to as CALGreen (California Code of Regulations, Part 11). Some of the elements the proposed project would include to improve sustainability and reduce energy usage involve:

- Cool site and cool roof techniques;
- Water-efficient plumbing fixtures and irrigation systems;
- Low-water use plants;
- Energy-efficient heating, ventilation, and air-conditioning systems and appliances;
- Low-emitting building materials (e.g., flooring, paint, carpeting, adhesives);
- Collection of recyclables; and
- Electric vehicle charging stations.

### 3.4.9 Construction

Construction of the project is scheduled to commence in mid-2021 and end in late 2025, a period of approximately 4.5 years; the first occupancy would be in 2023. First, the existing structures and parking lots on the project site would be demolished and trees would be removed. Then, grading and street and utility construction would occur.

“Horizontal” construction would include all major streets on the entire project site as well as required off-site street improvements. “Vertical” construction would include construction of the buildings as well as private lanes and alleys for access to individual residential units. “Vertical” construction is anticipated to occur in two phases: Phase 1 and Phase 2. Phase 1 of “vertical” construction would include the 693 residential units in PAs 1, 2, 3, 5, 7, 9 and 11A as well as the 30,800 sf of commercial space in PA 1 and PA 2. Phase 2 of “vertical” construction would include the 281 residential units in PAs 4, 6, 8 and 10. After the grading and demolition stage, both phases of construction would include the following stages: (1) “horizontal” construction, (2) home/retail construction for Phase 1 or home construction for Phase 2, (3) paving, and (4) architectural coatings.

The size of the construction crew would vary, depending on project phase. On any given day, there would be a minimum of 10 workers and a maximum of 915 workers.

The following is a brief description of the construction methods. Additional detail regarding construction is provided as needed in the technical analyses in Chapter 4, *Environmental Impact Analysis*.

#### 3.4.9.1 Demolition and Excavation

The structures on the site would be demolished (approximately 86,500 sf). Before beginning demolition at the site, a comprehensive building materials survey would be performed to check for asbestos-containing materials, lead-based paint, electrical equipment containing PCBs, and fluorescent tubes containing mercury vapors. If found, construction worker health and safety regulations, as well as material removal and disposal regulations, would be implemented in accordance with applicable federal and State standards, including California Division of

Occupational Safety and Health (Cal/OSHA) and Bay Area Air Quality Management District (BAAQMD) regulations. In addition, ACWD would be contacted at least 60 days prior to any demolition or construction work to request that existing water meters be disconnected or removed.

Construction of the foundation may require excavation. All foundations are anticipated to be concrete slabs; drilled piles are not expected to be required. To accommodate utility trenches, the project would excavate to a maximum depth of approximately 13.5 feet below the ground surface. Dewatering would not be required.

Demolition would generate approximately 2,175 tons of demolished building material and approximately 80,000 cubic yards (cy) of demolished trees, landscaping, soil, concrete, and asphalt. In total, all 26.5 acres of the project site would be disturbed during construction. The project would comply with the Construction and Demolition (C&D) Debris Recycling Ordinance (Union City Municipal Code, Chapter 15.75), which requires new construction projects to recycle or reuse 100 percent of all asphalt, concrete, uncontaminated soil, land-clearing debris, and plant debris. It also requires recycling or reuse of 65 percent of all other C&D debris generated by the project. Demolition debris, removed trees, concrete, and asphalt would be transported approximately 20 miles to an appropriate facility. The haul route (used by dump trucks) would be I-880 to Decoto Road to 7<sup>th</sup> Street to the project site. The haul route for removals would be in the opposite direction. Construction activities for the proposed project would result in approximately 60 to 166 daily vendor truck trips by vendors during the home/retail construction stage and approximately 10,256 total haul truck trips during the grading/demolition construction stage.<sup>17</sup>

### **3.4.9.2 Construction Security, Staging, and Parking**

Construction activities would be contained with a chain link fence around the entire site. Construction materials and equipment would be staged entirely on-site, in areas that are not under construction. Construction workers would park on the project site or use existing parking in the vicinity of the project site.

Trenching and temporary lane closures would be required during construction along the proposed internal streets as well as Decoto Road, 7<sup>th</sup> Street, Bradford Way, and Zwissig Way and while connections are completed to water, sewer, and storm drain services. In addition, temporary sidewalk rerouting is expected. Roadway traffic controls would be used as needed during construction.

### **3.4.9.3 Construction Hours**

Project construction would comply with Section 9.40.053, Construction, of the Union City Municipal Code, which includes regulations related to noise generated by construction. It stipulates that no construction activity will commence prior to 8:00 a.m. or continue no later than 8:00 p.m. Monday through Friday. In addition, noise-generating work shall be permitted on Saturdays from 9:00 a.m. to 8:00 p.m. and on Sundays and holidays from 10:00 a.m. to 6:00 p.m., provided that no individual piece of equipment produces a noise level greater than 83 A-weighted decibels (dBA) at a distance of 25 feet and the noise level outside the property plane does not exceed 86 dBA. No nighttime construction would occur.

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<sup>17</sup> The anticipated hauling distance is based on CalEEMod defaults, which are based on land use information and other construction information. CalEEMod is the BAAQMD's recommended model for estimating air quality emissions from land use projects.

### 3.4.10 Project Approvals

The project would require the following approvals:

- General Plan amendment to update land use targets for the Station East area, reduce the minimum density to 25 units per acre, provided a certain average density is maintained, and minor updates for consistency with the related Specific Plan Amendment;
- Update to the DIPSA Specific Plan (referred to as the *Station District Specific Plan*) for consistency with the 2040 General Plan and to reflect new land uses, circulation patterns, design attributes, etc.;
- Creation of a new zoning district, Station East Mixed Use (SEMU), for consistency with the General Plan designation of SEMU and a zoning map amendment to apply this new zoning district to the project site;
- Development agreement.
- Tentative map to facilitate block configuration and the creation of condominiums and townhomes, including Niles subdivision UPRR preemption improvements; and
- Site development review approval for review of building and site design.

### 3.4.11 Ministerial Actions

The project would require the following ministerial actions:

- Grading permit
- Encroachment permit (for construction of sidewalks, driveway approaches, installation of new or update of existing signals, or any other work in the public right-of-way)
- Tree removal permit
- Demolition and building permits

### 3.4.12 Responsible Agencies Actions

The project could require actions by the following outside agencies:

- Department of Toxic Substances Control
- Alameda County Department of Environmental Health
- Bay Area Air Quality Management District (BAAQMD)
- Regional Water Quality Control Board (RWQCB)
- California Department of Transportation (Caltrans)
- Alameda County Water District (ACWD)
- California Public Utilities Commission (CPUC) authorization to modify an existing rail crossing, including pre-emption



## Chapter 4

# Environmental Impact Analysis

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This section describes the analysis format used in each environmental topic section of this chapter; it also discusses the effect of Public Resource Code Section 21099 on the scope of California Environmental Quality Act (CEQA) analysis for the proposed project, and explains the general approaches to baseline setting and cumulative analysis in this draft environmental impact report (EIR) (Draft EIR).

In December 2015, the California Supreme Court found that “CEQA generally does not require an analysis of how existing environmental conditions will impact a project’s future users or residents,” unless the project “could exacerbate hazards that are already present.” The California Supreme Court identified several exceptions to this general rule in which CEQA could apply to impacts of the environment on a project, all of which are statutory provisions in CEQA that specifically require consideration of impacts of the environment, such as considerations near airports, schools, construction projects, and statutory exemptions from housing and transit priority projects.<sup>1</sup> None of these exceptions apply to the project; as such, this Draft EIR does not analyze whether the environment could have an effect on the project.

The applicant indicated that the residential units associated with proposed project would increase by 10, from 964 to 974 units. Section 4, *Environmental Impact Analysis*, analyzes 964 residential units despite Chapter 3, *Project Description*, reflecting the current proposal of 974 residential units. The increase of 10 residential units would not result in any changes to the environmental analysis, including impact conclusions and mitigation measures, primarily because the overall duration of construction, construction schedule, construction intensity, and building footprint all would remain the same. In addition, assumptions used in the analysis of operational-related impacts are conservative enough to account for the 10 additional units. Specifically, with respect to impacts resulting from population growth (such as Population and Housing, Public Services, or Utilities), the 10 additional units and associated growth are within the General Plan and ABAG projections. The additional 26 residents<sup>2</sup> conservatively expected to result from the addition of 10 units would not change the severity of the impact conclusions for these topics, many of which are not directly contingent upon population growth (i.e., 2,445 additional residents and 75 additional employees) and mitigated instead through the payment of various developer impact fees. With respect to water supply, the Alameda County Water District has confirmed the increase in units would not result in any changes to the conclusions in the Water Supply Assessment prepared for the project (**Appendix 4.15-1**). Similarly, the vehicle trip generation for the project is substantially conservative to cover the 10 additional units as it assumes 1,150 multi-family dwelling units. Thus, the analysis presented throughout this EIR adequately accounts for the potential environmental impacts of the 974 new residential units.

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<sup>1</sup> *California Building Industry Assoc. v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369.

<sup>2</sup> According to the General Plan EIR, chapter 2, *Project Description*, 2.51 persons are expected to live in each new multi-family residential unit.

## Organization of This Chapter

This chapter provides environmental analyses of the physical impacts that could occur as a result of implementing the project. There is a separate section for each environmental topic, as listed below. This chapter is organized as follows:

- Section 4.1, *Air Quality*
- Section 4.2, *Biological Resources*
- Section 4.3, *Cultural Resources*
- Section 4.4, *Energy*
- Section 4.5, *Geology, Soils, and Paleontological Resources*
- Section 4.6, *Greenhouse Gases*
- Section 4.7, *Hazards and Hazardous Materials*
- Section 4.8, *Hydrology and Water Quality*
- Section 4.9, *Land Use and Planning*
- Section 4.10, *Noise*
- Section 4.11, *Population and Housing*
- Section 4.12, *Public Services and Recreation*
- Section 4.13, *Tribal Cultural Resources*
- Section 4.14, *Transportation*
- Section 4.15, *Utilities and Service Systems*
- Section 4.16, *Less-than-Significant Impacts*
  - Section 4.16.1, *Aesthetics*
  - Section 4.16.2, *Agricultural and Forest Resources*
  - Section 4.16.3, *Mineral Resources*
  - Section 4.16.4, *Wildfire*

## Public Resources Code Section 21099

Public Resources Code (PRC) Section 21099 requires that the State Office of Planning and Research (OPR) amend the CEQA Guidelines to provide an alternative to level of service (LOS) for evaluating traffic impacts of projects. The new CEQA Guidelines must establish criteria that “promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses.” PRC Section 21099 (b)(2) states that upon certification of the revised guidelines for determining transportation impacts pursuant to Section 21099 (b)(1), automobile delay, as described solely by LOS or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment under CEQA.

In January 2016, OPR published for public review and comment a “Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA,” recommending that transportation impacts for projects be measured using the vehicle miles traveled (VMT) metric, and in November 2017, OPR published a “Technical Advisory on Evaluating Transportation Impacts in CEQA,” which was consequently updated in December 2018. A VMT and induced automobile travel impact analysis is provided in Section 4.14, *Transportation*. The VMT metric does not apply to the analysis of impacts on non-automobile modes of travel, such as riding transit, walking, and bicycling.

## Classification of Impacts and Mitigation Measures

Each environmental topic section in this chapter includes a topic-specific “Methods for Analysis” subsection to explain the parameters, assumptions, and data used in the analysis that follows. The “Impacts and Mitigation Measures” subsection describes the physical environmental impacts of the proposed project for each topic and any feasible mitigation measures that could reduce potentially significant impacts to less-than-significant levels. This subsection begins with a listing of the significance criteria used to assess the severity of the environmental impacts for that particular topic based on the CEQA Guidelines Appendix G Checklist.

The project-level impact analysis for each topic begins with an impact statement that reflects the applicable significance criteria. Each impact statement is keyed to a subject area abbreviation (e.g., BIO for Biological Resources) and an impact number (e.g., 1, 2, 3) for a combined alpha-numeric code (e.g., Impact BIO-1, Impact BIO-2, Impact BIO-3). When potentially significant impacts are identified, mitigation measures are presented, if feasible, to avoid, eliminate, or reduce significant adverse impacts of the project. Each mitigation measure is numbered numerically and corresponds to the impact topic to which it pertains to (e.g., Mitigation Measure BIO-1a and Mitigation Measure Bio-1b for Impact BIO-1).

Each impact statement describes the impact that would occur without mitigation. The level of significance of the impact is indicated in parentheses at the end of the impact statement based on the following terms:

- **No Impact** – No adverse physical changes (or impacts) to the environment are expected.
- **Less than Significant** – Impact that does not exceed the defined significance criteria or would be eliminated or reduced to a less-than-significant level through compliance with existing local, State, and federal laws and regulations.
- **Less than Significant with Mitigation** – Impact that is reduced to a less-than-significant level through implementation of the identified mitigation measures.
- **Significant and Unavoidable with Mitigation** – Impact that exceeds the defined significance criteria and can be reduced through compliance with existing local, State, and federal laws and regulations and/or implementation of all feasible mitigation measures, but cannot be reduced to a less-than-significant level.
- **Significant and Unavoidable** – Impact that exceeds the defined significance criteria and cannot be eliminated or reduced to a less-than-significant level through compliance with existing local, State, and federal laws and regulations and for which there are no feasible mitigation measures.

## Approach to Environmental Baseline

Project development characteristics are typically compared to the existing physical environment to isolate impacts caused by the project on its surroundings. In other words, the existing condition (also referred to as the environmental setting) is normally the baseline against which the project's impacts are measured to determine whether impacts are significant. Therefore, the "Environmental Setting" subsection in each environmental topic section describes existing conditions on and around the project site. These existing conditions are ordinarily established as of the date the NOP is published. Under some circumstances, it is appropriate to use a different baseline to identify project impacts. These account for circumstances that may change over the course of environmental review and project construction. Unless otherwise indicated, the baseline setting for the proposed project includes the existing uses on the six parcels (i.e., assessor's parcel numbers [APNs] 87-21-5-2, 87-21-13-1, 87-21-13-2, 87-23-12, 87-23-10, and 87-23-13-2) as of March 2020.

## Approach to Cumulative Impacts

Cumulative impacts are impacts on the environment that result from the incremental impacts of a proposed action when added to other past, present, and reasonably foreseeable future actions per CEQA Guidelines Section 15355(b). Such impacts can result from individually minor but collectively significant actions taking place over time. The CEQA Guidelines require addressing a project's cumulative impacts in an EIR when the cumulative impacts are expected to be significant and when the project's incremental effect is cumulatively considerable per CEQA Guidelines Section 15130(a).

CEQA Guidelines Section 15130 states that the discussion of cumulative impacts need not provide as much detail as the discussion of effects attributable to a project alone. The level of detail should be guided by what is practical and reasonable.

According to the CEQA Guidelines, an adequate discussion of significant cumulative impacts should contain the following discussions.

- An analysis of related future projects or planned developments that would affect resources in the area, similar to those affected by the project.
- A summary of the expected environmental effects to be produced by those projects, with specific reference to additional information, including the location of that information.
- A reasonable analysis of the cumulative impacts of the relevant projects.

Also according to the CEQA Guidelines, an EIR must examine reasonable, feasible options for mitigating or avoiding a project's contribution to any significant cumulative impacts.

When evaluating cumulative impacts, the CEQA Guidelines recommend one of the following two methods.

1. A cumulative analysis that includes any past, present, or probable future projects with related or cumulative impacts, including projects outside the control of the lead agency (i.e., the "project list approach").
2. A cumulative analysis that considers projections contained in an adopted local, regional, or statewide plan or a prior environmental document that has been adopted or certified for such a plan (i.e., the "plan approach").

The *City of Union City 2040 General Plan* (General Plan) was adopted on December 10, 2019, by the Union City (City) City Council. The General Plan, in part, contains the goals, policies, and implementation programs for a variety of issues, including economic development, health and quality of life, land use, community design, housing, mobility, safety, public services and facilities, and resource conservation. The General Plan also provides for long-term growth within the City, as allowed by General Plan designations and requirements. Generally, the cumulative scenario used in this analysis is buildout of the General Plan. Thus, the General Plan and the *2040 Union City General Plan Update Environmental Impact Report*<sup>3</sup> (General Plan EIR) are the main sources considered in the cumulative impact analyses included throughout this Draft EIR.

Each analysis considers the cumulative geographic context of the environmental topic. The cumulative impact analyses describe the potential for the project, in combination with the cumulative projects, to result in cumulatively significant environmental impacts. The evaluations identify whether the cumulative impact would be significant. If a cumulative impact is identified as significant, then the analysis considers whether the project's contribution to a significant cumulative impact would be considerable.

The analysis of cumulative impacts set forth in the General Plan EIR adequately addresses regional and area-wide cumulative impacts on aesthetics, agriculture and forestry resources, air quality, biological resources, cultural resources, energy, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use, mineral resources, noise and vibration, population and housing, public services and recreation, transportation, tribal cultural resources, utilities and service systems, and wildfire. Therefore, the General Plan EIR's analysis of cumulative impacts for each of these environmental topics is hereby incorporated by reference. The General Plan EIR is available for review at the City's Economic & Community Development Department, at 34009 Alvarado-Niles Road in Union City, California, 94587 and also on-line at <http://www.uc2040.com/documents/>. In addition, the transportation analysis in this Draft EIR uses the Alameda County Transportation Committee's Countywide Travel Demand Model to estimate VMT per capita generated by the proposed project under cumulative conditions.

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<sup>3</sup> Rincon Consultants, Inc. *2040 Union City General Plan Update Environmental Impact Report*. November 2019.



## 4.1 Air Quality

This section describes the environmental and regulatory setting for air quality. It also describes impacts on air quality that would result from implementation of the project and mitigation for significant impacts where feasible and appropriate. This section is based on modeling completed for the project (**Appendix 4.1**).

No comments regarding air quality were received in response to the Notice of Preparation (NOP).

### 4.1.1 Existing Conditions

#### 4.1.1.1 Environmental Setting

The project site is located within the San Francisco Bay Area Air Basin (SFBAAB). Ambient air quality is affected by climatological conditions, topography, and the types and amounts of pollutants emitted. The following sections summarize how air pollution moves through the air, water, and soil within the air basin, and how it is chemically changed in the presence of other chemicals and particles. This section also summarizes regional and local climate conditions, existing air quality conditions, and sensitive receptors that may be affected by project-generated emissions.

#### Pollutants of Concern

##### Criteria Pollutants

The federal and State governments have established ambient air quality standards for six criteria pollutants. Ozone is considered a regional pollutant because its precursors affect air quality on a regional scale. Pollutants such as carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), and lead are considered local pollutants that tend to accumulate in the air locally. Particulate matter (PM) is both a regional and local pollutant. The primary criteria pollutants generated by the project are ozone precursors (i.e., nitrogen oxides (NO<sub>x</sub>) and reactive organic gases [ROG]), CO, and PM.<sup>1,2,3</sup>

All criteria pollutants can have human health effects at certain concentrations. The ambient air quality standards for these pollutants are set to protect public health and the environment with an adequate margin of safety (Clean Air Act [CAA] Section 109). Epidemiological, controlled human exposure, and toxicology studies evaluate potential health and environmental effects of criteria pollutants, and form the scientific basis for new and revised ambient air quality standards.

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<sup>1</sup> As discussed above, there are also ambient air quality standards for SO<sub>2</sub>, lead, sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particulates. However, these pollutants are typically associated with industrial sources, which are not included as part of the project. Accordingly, they are not evaluated further.

<sup>2</sup> Most emissions of NO<sub>x</sub> are in the form of nitric oxide (NO). Conversion to NO<sub>2</sub> occurs in the atmosphere as pollutants disperse downwind. Accordingly, NO<sub>2</sub> is not considered a local pollutant of concern for the project and is not evaluated further.

<sup>3</sup> Reşitoğlu, Ibrahim A. 2018. *NO<sub>x</sub> Pollutants from Diesel Vehicles and Trends in Control Technologies*. Published November 5. DOI: 10.5772/intechopen.81112. Available: <https://www.intechopen.com/books/diesel-and-gasoline-engines/no-sub-x-sub-pollutants-from-diesel-vehicles-and-trends-in-the-control-technologies>. Accessed: March 16, 2020.

Principal characteristics and possible health and environmental effects from exposure to the primary criteria pollutants generated by the project are discussed below.

**Ozone**, or smog, is photochemical oxidant that is formed when ROG and NO<sub>x</sub> (both byproducts of the internal combustion engine) react with sunlight. ROG are compounds made up primarily of hydrogen and carbon atoms. Internal combustion associated with motor vehicle use is the major source of hydrocarbons. Other sources of ROG are emissions associated with the use of paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. The two major forms of NO<sub>x</sub> are nitric oxide (NO) and NO<sub>2</sub>. NO is a colorless, odorless gas that forms from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. NO<sub>2</sub> is a reddish-brown irritating gas formed by the combination of NO and oxygen. In addition to serving as an integral participant in ozone formation, NO<sub>x</sub> also directly acts as an acute respiratory irritant and increases susceptibility to respiratory pathogens.

Ozone poses a higher risk to those who already suffer from respiratory diseases (e.g., asthma), children, older adults, and people who are active outdoors. Exposure to ozone at certain concentrations can make breathing more difficult, cause shortness of breath and coughing, inflame and damage the airways, aggravate lung diseases, increase the frequency of asthma attacks, and cause chronic obstructive pulmonary disease. Studies show associations between short-term ozone exposure and non-accidental mortality, including deaths from respiratory issues. Studies also suggest long-term exposure to ozone may increase the risk of respiratory-related deaths.<sup>4</sup> The concentration of ozone at which health effects are observed depends on an individual's sensitivity, level of exertion (i.e., breathing rate), and duration of exposure. Studies show large individual differences in the intensity of symptomatic responses, with one study finding no symptoms to the least responsive individual after a 2-hour exposure to 400 parts per billion of ozone and a 50 percent decrease in forced airway volume in the most responsive individual. Although the results vary, evidence suggests that sensitive populations (e.g., asthmatics) may be affected on days when the 8-hour maximum ozone concentration reaches 80 parts per billion.<sup>5</sup> The average background level of ozone in the Bay Area is approximately 45 parts per billion.<sup>6</sup>

In addition to human health effect, ozone has been tied to crop damage, typically in the form of stunted growth, leaf discoloration, cell damage, and premature death. Ozone can also act as a corrosive and oxidant, resulting in property damage such as the degradation of rubber products and other materials.

**Carbon monoxide** is a colorless, odorless, toxic gas produced by incomplete combustion of carbon substances, such as gasoline or diesel fuel. In the air quality study area, high CO levels are of greatest concern during the winter, when periods of light winds combine with the formation of ground-level temperature inversions from evening through early morning. These conditions trap pollutants near the ground, reducing the dispersion of vehicle emissions. Moreover, motor vehicles exhibit

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<sup>4</sup> U.S. Environmental Protection Agency. 2018a. *Ground-level Ozone Basics*. Last updated October 31. Available: <https://www.epa.gov/ground-level-ozone-pollution/ground-level-ozone-basics#wwh>. Accessed: March 16, 2020.

<sup>5</sup> U.S. Environmental Protection Agency. 2016. *Health Effects of Ozone in the General Population*. Last updated September 2. Available: <https://www.epa.gov/ozone-pollution-and-your-patients-health/health-effects-ozone-general-population>. Accessed: March 16, 2020.

<sup>6</sup> Bay Area Air Quality Management District. 2017a. *Final 2017 Clean Air Plan*. Adopted April 19. Available: [https://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a\\_-proposed-final-cap-vol-1-pdf.pdf?la=en](https://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en). Accessed: March 16, 2020.



increased CO emission rates at low air temperatures. The primary adverse health effect associated with CO is interference with normal oxygen transfer to the blood, which may result in tissue oxygen deprivation. Exposure to CO at high concentrations can also cause fatigue, headaches, confusion, dizziness, and chest pain. There are no ecological or environmental effects of CO at or near existing background CO levels.<sup>7</sup>

**Particulate matter** consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Two forms of particulates are now generally considered: inhalable coarse particles, or PM<sub>10</sub>, and inhalable fine particles, or PM<sub>2.5</sub>. Particulate discharge into the atmosphere results primarily from industrial, agricultural, construction, and transportation activities. However, wind on arid landscapes also contributes substantially to local particulate loading.

Particulate pollution can be transported over long distances and may adversely affect humans, especially for people who are naturally sensitive or susceptible to breathing problems. Numerous studies have linked PM exposure to premature death in people with preexisting heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms. Studies show that long-term exposure to PM<sub>2.5</sub> was associated with increased risk of mortality, ranging from 6 to 13 percent increased risk per 10 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) of PM<sub>2.5</sub>.<sup>8</sup> For every 1  $\mu\text{g}/\text{m}^3$  reduction in PM<sub>2.5</sub> results in a 1 percent reduction in mortality rate for individuals over 30 years old.<sup>9</sup> Studies also show an approximate 0.5 percent increase in overall mortality for every 10  $\text{mg}/\text{m}^3$  increase in PM<sub>10</sub> measured the day before death.<sup>10</sup> PM<sub>10</sub> levels have been greatly reduced since 1990. Peak concentrations have declined by 60 percent and annual average values have declined by 50 percent.<sup>11</sup> Depending on its composition, both PM<sub>10</sub> and PM<sub>2.5</sub> can also affect water quality and acidity, deplete soil nutrients, damage sensitive forests and crops, affect ecosystem diversity, and contribute to acid rain.<sup>12</sup>

### Toxic Air Contaminants

Although ambient air quality standards have been established for criteria pollutants, no ambient standards exist for toxic air contaminants (TACs). Many pollutants are identified as TACs because of their potential to increase the risk of developing cancer or because of their acute or chronic health risks. For TACs that are known or suspected carcinogens, the California Air Resources Board (CARB)

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- <sup>7</sup> California Air Resources Board. 2020a. *Carbon Monoxide & Health*. Available: <https://ww2.arb.ca.gov/resources/carbon-monoxide-and-health>. Accessed: March 16, 2020.
- <sup>8</sup> California Air Resources Board. 2010. Estimate of Premature Deaths Associated with Fine Particle Pollution (PM<sub>2.5</sub>) in California Using a U.S. Environmental Protection Agency Methodology. August 31. Available: [https://ww3.arb.ca.gov/research/health/pm-mort/pm-report\\_2010.pdf](https://ww3.arb.ca.gov/research/health/pm-mort/pm-report_2010.pdf). Accessed: March 16, 2020.
- <sup>9</sup> Bay Area Air Quality Management District. 2017a. *Final 2017 Clean Air Plan*. Adopted April 19. Available: [https://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a\\_-proposed-final-cap-vol-1-pdf.pdf?la=en](https://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en). Accessed: March 16, 2020.
- <sup>10</sup> United States Environmental Protection Agency. 2005. Final Report: The National Morbidity, Mortality, and Air Pollution Study: Morbidity and Mortality from Air Pollution in the United States. Available: [https://cfpub.epa.gov/ncer\\_abstracts/index.cfm/fuseaction/display.highlight/abstract/2399/report/F](https://cfpub.epa.gov/ncer_abstracts/index.cfm/fuseaction/display.highlight/abstract/2399/report/F). Accessed: March 16, 2020.
- <sup>11</sup> Bay Area Air Quality Management District. 2017a. *Final 2017 Clean Air Plan*. Adopted April 19. Available: [https://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a\\_-proposed-final-cap-vol-1-pdf.pdf?la=en](https://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en). Accessed: March 16, 2020.
- <sup>12</sup> U.S. Environmental Protection Agency. 2018b. *Health and Environmental Effects of Particulate Matter (PM)*. Last updated June 2018. Available: <https://www.epa.gov/pm-pollution/health-and-environmental-effects-particulate-matter-pm>. Accessed: March 16, 2020.

has consistently found that there are no levels or thresholds below which exposure is risk-free. Individual TACs vary greatly in the risks they present. At a given level of exposure, one TAC may pose a hazard that is many times greater than another. TACs are identified and their toxicity is studied by the California Office of Environmental Health Hazard Assessment (OEHHA) The primary TACs of concern associated with the project are asbestos and diesel particulate matter (DPM).

Asbestos is the name given to several naturally occurring fibrous silicate minerals. Before the adverse health effects of asbestos were identified, asbestos was widely used as insulation and fireproofing in buildings, and it can still be found in some older buildings. It is also found in its natural state in rock or soil. The inhalation of asbestos fibers into the lungs can result in a variety of adverse health effects, including inflammation of the lungs, respiratory ailments (e.g., asbestosis, which is scarring of lung tissue that results in constricted breathing), and cancer (e.g., lung cancer and mesothelioma, which is cancer of the linings of the lungs and abdomen).

DPM is generated by diesel-fueled equipment and vehicles. Within the Bay Area, the Bay Area Air Quality Management District (BAAQMD) has found that of all controlled TACs, emissions of DPM are responsible for about 82 percent of the total ambient cancer risk.<sup>13</sup> Short-term exposure to DPM can cause acute irritation (e.g., eye, throat, and bronchial), neurophysiological symptoms (e.g., lightheadedness and nausea), and respiratory symptoms (e.g., cough and phlegm). The U.S. Environmental Protection Agency (EPA) has determined that diesel exhaust is “likely to be carcinogenic to humans by inhalation.”<sup>14</sup>

### Odors

Offensive odors can be unpleasant and lead to citizen complaints to local governments and air districts. According to CARB’s *Air Quality and Land Use Handbook*<sup>15</sup>, land uses associated with odor complaints typically include sewage treatment plants, landfills, recycling facilities, manufacturing, and agricultural activities. CARB provides recommended screening distances for siting new receptors near existing odor sources.

### Climate and Meteorology

Although the primary factors that determine air quality are the locations of air pollutant sources and the amount of pollutants emitted from those sources, meteorological conditions and topography are also important factors. Atmospheric conditions, such as wind speed, wind direction, and air temperature gradients interact with the physical features of the landscape to determine the movement and dispersal of air pollutants. Unique geographic features throughout the State define fifteen air basins with distinctive regional climates. The air quality study area is located in the southwestern Alameda County portion of the SFBAAB.<sup>16</sup>

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<sup>13</sup> Bay Area Air Quality Management District. 2017a. *Final 2017 Clean Air Plan*. Adopted April 19. Available: <https://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a-proposed-final-cap-vol-1-pdf.pdf?la=en>. Accessed: March 16, 2020.

<sup>14</sup> U.S. Environmental Protection Agency. 2003. *Diesel Engine Exhaust; CASRN N.A.* February 28. Available: [https://cfpub.epa.gov/ncea/iris/iris\\_documents/documents/subst/0642\\_summary.pdf#nameddest=woe](https://cfpub.epa.gov/ncea/iris/iris_documents/documents/subst/0642_summary.pdf#nameddest=woe). Accessed: March 16, 2020.

<sup>15</sup> California Air Resources Board. 2005. *Air Quality and Land Use Handbook: A Community Health Perspective*. April. Available: <https://ww3.arb.ca.gov/ch/handbook.pdf>. Accessed: March 16, 2020.

<sup>16</sup> Bay Area Air Quality Management District. 2017b. *California Environmental Quality Act. Air Quality Guidelines*. May. Available: [https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa\\_guidelines\\_may2017-pdf.pdf?la=en](https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en). Accessed: March 16, 2020.

This subregion encompasses the southeast side of San Francisco Bay, from Dublin Canyon to north of Milpitas. The subregion is bordered on the east by the East Bay hills and on the west by the bay. Most of the area is flat.

This subregion is indirectly affected by marine air flow. Marine air entering through the Golden Gate is blocked by the East Bay hills, forcing the air to diverge into northerly and southerly paths. The southern flow is directed down the bay, parallel to the hills, where it eventually passes over southwestern Alameda County. These sea breezes are strongest in the afternoon. The further from the ocean the marine air travels, the more the ocean's effect is diminished. Although the climate in this region is affected by sea breezes, it is affected less so than the regions closer to the Golden Gate.

The climate of southwestern Alameda County is also affected by its close proximity to San Francisco Bay. The Bay cools the air with which it comes in contact during warm weather, while during cold weather the Bay warms the air. The normal northwest wind pattern carries this air onshore. Bay breezes push cool air onshore during the daytime and draw air from the land offshore at night.

Winds are predominantly out of the northwest during the summer months. In the winter, winds are equally likely to be from the east. Easterly-southeasterly surface flow into southern Alameda County passes through three major gaps: Hayward/Dublin Canyon, Niles Canyon and Mission Pass. Areas north of the gaps experience winds from the southeast, while areas south of the gaps experience winds from the northeast. Wind speeds are moderate in this subregion, with annual average wind speeds close to the Bay at about 7 miles per hour, while further inland they average 6 miles per hour.

Air temperatures are moderated by the subregion's proximity to the Bay and to the sea breeze. Temperatures are slightly cooler in the winter and slightly warmer in the summer than East Bay cities to the north. During the summer months, average maximum temperatures are in the mid-70s. Average maximum winter temperatures are in the high 50s to low 60s. Average minimum temperatures are in the low 40s in winter and mid-50s in the summer. The average maximum daily summertime and wintertime temperatures in Union City (City) are in the high 70s and high 50s, respectively. The average minimum daily summertime and wintertime temperatures in Union City are in the high 50s. Rainfall amounts on the east side of the peninsula are somewhat lower than on the west side, with Union City reporting an average of 15.2 inches per year.<sup>17</sup>

Pollution potential is relatively high in this subregion during the summer and fall. When high pressure dominates, low mixing depths and Bay and ocean wind patterns can concentrate and carry pollutants from other cities to this area, adding to the locally emitted pollutant mix. The polluted air is then pushed up against the East Bay hills. In the wintertime, the air pollution potential in southwestern Alameda County is moderate. Air pollution sources include light and heavy industry, and motor vehicles. Increasing motor vehicle traffic and congestion in the subregion may increase southwest Alameda County pollution as well as that of its neighboring subregions.

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<sup>17</sup> Weather Channel. 2020. *Union City, CA Monthly Weather*. Available: <https://weather.com/weather/monthly/1/edb5840da31df3ad5db789c323611f6cfcbeb300f7a0caa89d482322426734dd>. Accessed: March 16, 2020.

## Existing Air Quality Conditions

### Ambient Criteria Pollutant Concentrations

A number of ambient air quality monitoring stations are located in SFBAAB to monitor progress toward air quality standards attainment of the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS). The NAAQS and CAAQS are discussed further under *Regulatory Setting*. There are no monitoring stations in Union City. The nearest monitoring station to the proposed project is the Hayward-La Mesa Drive, located approximately 4 miles northwest of the project site. However, this monitoring station only reports ozone data and does not report on other pollutants. Therefore, monitoring data from the Oakland-9925 International Boulevard monitoring station, which is the next nearest monitoring station in the county located approximately 13 miles northwest of the project site, was reviewed for the remaining pollutants.

Table 4.1-1 summarizes data for criteria air pollutant levels from the Hayward-La Mesa Drive and Oakland-9925 International Boulevard monitoring stations from 2016 to 2018). Table 4.1-1 shows the monitoring stations were in violation of federal and State ozone standards in 2017, and were in violation of the federal PM<sub>2.5</sub> standard in 2017 and 2018. Federal and State standards for other pollutants (with the exception of PM<sub>10</sub> where no data were available) were not exceeded. These existing ozone and PM<sub>2.5</sub> violations of ambient air quality standards indicate that certain individuals exposed to this pollutant may experience certain health effects, including increased incidence of cardiovascular and respiratory ailments.

### Existing TAC Sources and Health Risks

The BAAQMD maintains an inventory of health risks associated with all permitted stationary sources within the SFBAAB. The inventory was last updated in 2020 and is publicly available online. One stationary source (i.e., a generator) owned by the City – Alameda County Fire Station No. 33 is located within 1,000 feet of the project site.<sup>18</sup> Figure 4.1-1, illustrates existing stationary emission sources within 1,000 feet of the project site.

Aside from stationary sources, emissions of TACs in and around the project site are also generated from mobile sources. BAAQMD considers roadways with greater than 10,000 average daily traffic (ADT) as “high volume roadways” and recommends they be included in the analysis of health risks.<sup>19</sup> Currently, roadways located in the immediate proximity of the project site (within 1,000 feet) have ADT greater than 10,000 vehicles and include CA-238/Mission Boulevard and Decoto Road. These segments have annual average daily traffic volumes of 31,500<sup>20</sup> and 17,997<sup>21</sup>, respectively. In addition, the Niles subdivision Union Pacific Railroad (UPRR) tracks and Bay Area Rapid Transit (BART) tracks are located approximately 300 and 900 feet west of the project site, respectively.

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<sup>18</sup> Areana Flores (BAAQMD). Email to Sandy Lin. RE: Stationary Source Inquiry Form for Station East Project. March 19, 2020.

<sup>19</sup> Bay Area Air Quality Management District. 2012. *Recommended Methods for Screening and Modeling Local Risks and Hazards*. May. Available: <http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/risk-modeling-approach-may-2012.pdf>. Accessed: July 9, 2020.

<sup>20</sup> California Department of Transportation. 2020. *2017 Traffic Volumes: Route 221-275*. Available: <https://dot.ca.gov/programs/traffic-operations/census/traffic-volumes/2017/route-221-275>. Accessed: March 16, 2020.

<sup>21</sup> Average daily traffic volumes provided by Fehr & Peers.

**Table 4.1-1. Ambient Air Quality Data at the Hayward-La Mesa Drive and Oakland-9925 International Boulevard Monitoring Stations (2016-2018)**

Pollutant Standards	2016	2017	2018
<b>Ozone (O<sub>3</sub>)</b>			
Maximum 1-hour concentration (ppm)	0.083	0.139	0.075
Maximum 8-hour concentration (ppm)	0.065	0.110	0.066
<i>Number of days standard exceeded<sup>a</sup></i>			
CAAQS 1-hour (> 0.09 ppm)	0	2	0
CAAQS 8-hour (> 0.070 ppm)	0	4	0
NAAQS 8-hour (> 0.070 ppm)	0	3	0
<b>Carbon Monoxide (CO)</b>			
Maximum 8-hour concentration (ppm)	1	2.2	2.4
Maximum 1-hour concentration (ppm)	2.6	3.2	3.3
<i>Number of days standard exceeded<sup>a</sup></i>			
NAAQS 8-hour (≥ 9 ppm)	0	0	0
CAAQS 8-hour (≥ 9.0 ppm)	0	0	0
NAAQS 1-hour (≥ 35 ppm)	0	0	0
CAAQS 1-hour (≥ 20 ppm)	0	0	0
<b>Nitrogen Dioxide (NO<sub>2</sub>)</b>			
State maximum 1-hour concentration (ppb)	59	64	72
State second-highest 1-hour concentration (ppb)	43	58	71
Annual average concentration (ppb)	9	10	10
<i>Number of days standard exceeded<sup>a</sup></i>			
CAAQS 1-hour (180 ppb)	0	0	0
<b>Particulate Matter (PM<sub>10</sub>)</b>			
No data available.			
<b>Fine Particulate Matter (PM<sub>2.5</sub>)</b>			
National <sup>e</sup> maximum 24-hour concentration (µg/m <sup>3</sup> )	15.5	70.2	172.1
National <sup>e</sup> second-highest 24-hour concentration (µg/m <sup>3</sup> )	15.3	57.6	152.3
State <sup>f</sup> maximum 24-hour concentration (µg/m <sup>3</sup> )	15.5	70.2	172.1
State <sup>f</sup> second-highest 24-hour concentration (µg/m <sup>3</sup> )	15.3	57.6	152.3
National annual average concentration (µg/m <sup>3</sup> )	6.1	9.3	11.7
State annual average concentration (µg/m <sup>3</sup> )	6.1	9.4	11.8
<i>Measured number of days standard exceeded<sup>a</sup></i>			
NAAQS 24-hour (> 35 µg/m <sup>3</sup> )	0	7	13

**Sources:**

California Air Resources Board 2020b. *iADAM: Air Quality Data Statistics – Top 4 Summary* (2016-2018, Alameda County, Hayward-La Mesa and Oakland-9925 International Boulevard). Available: <https://www.arb.ca.gov/adam/topfour/topfourdisplay.php>. Accessed: March 16, 2020.

U.S. Environmental Protection Agency 2018c. *Outdoor Air Quality Data. Monitor Values Reports* (Carbon Monoxide, 2016-2018, Alameda County, Oakland-9925 International Boulevard). Last updated July 31. Available: <https://www.epa.gov/outdoor-air-quality-data/monitor-values-report>. Accessed: March 16, 2020.

**Notes:**

ppb = parts per billion; ppm = parts per million; NAAQS = National Ambient Air Quality Standards; CAAQS = California Ambient Air Quality Standards; µg/m<sup>3</sup> = micrograms per cubic meter, mg/m<sup>3</sup> = milligrams per cubic meter, - = no data available

<sup>a</sup> An exceedance is not necessarily related to a violation of the standard.

<sup>b</sup> National statistics are based on standard conditions data. In addition, national statistics are based on samplers using federal reference or equivalent methods.

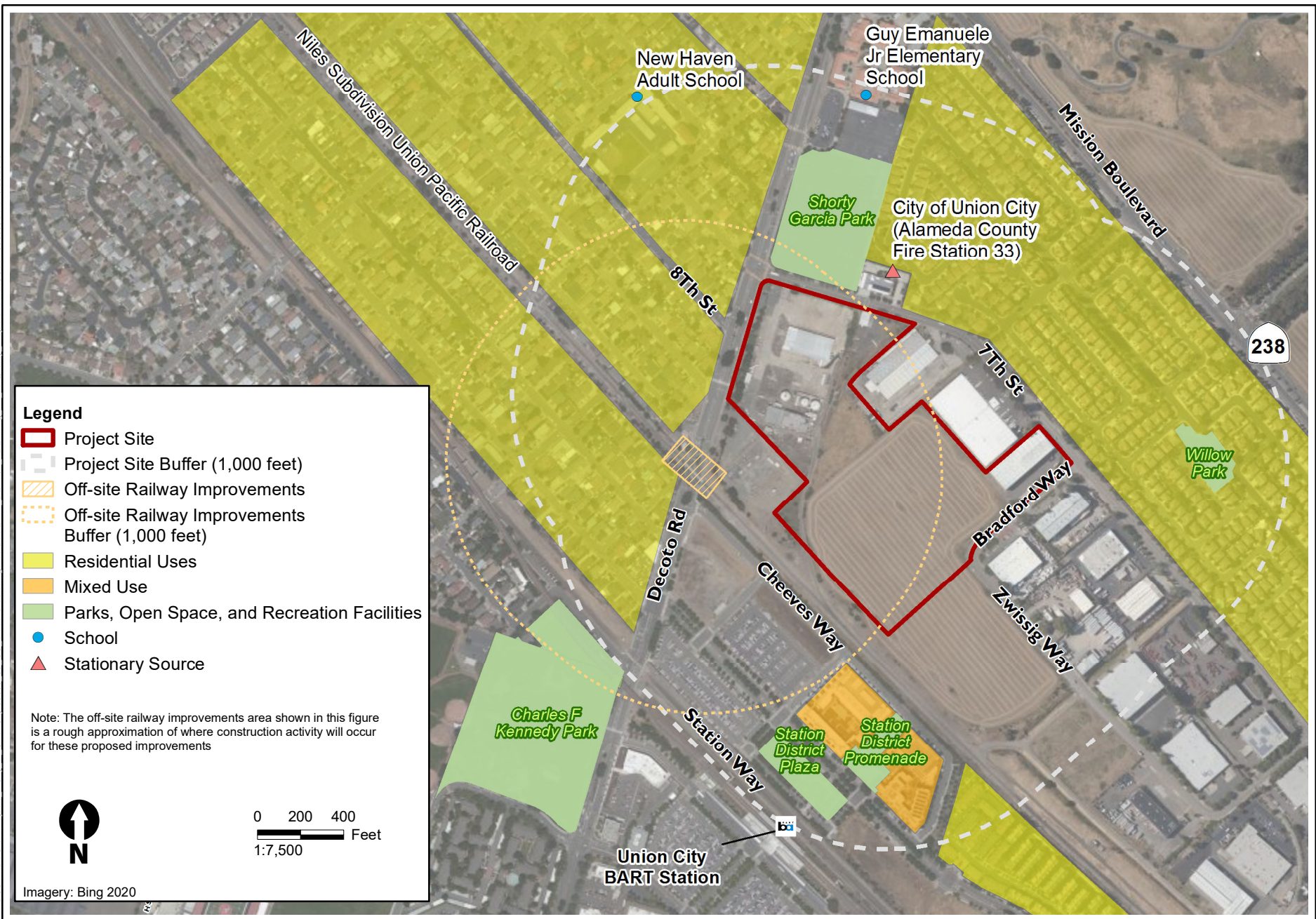
<sup>c</sup> State statistics are based on approved local samplers and local conditions data.

<sup>d</sup> State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.

<sup>e</sup> National statistics are based on samplers using federal reference or equivalent methods.

<sup>f</sup> State statistics are based on local approved samplers.

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**Figure 4-1.1**  
**Existing Air Quality Sensitive Receptors and Emission Sources in the Vicinity of the Project Site**



## Regional Attainment Status

Local monitoring data are used to designate areas as nonattainment, maintenance, attainment, or unclassified for the ambient air quality standards. The four designations are defined below.

Table 4.1-2 summarizes the attainment status of Alameda County.

- Nonattainment—assigned to areas where monitored pollutant concentrations consistently violate the standard in question.
- Maintenance—assigned to areas where monitored pollutant concentrations exceeded the standard in question in the past but are no longer in violation of that standard.
- Attainment—assigned to areas where pollutant concentrations meet the standard in question over a designated period of time.
- Unclassified—assigned to areas where data are insufficient to determine whether a pollutant is violating the standard in question.

**Table 4.1-2. Federal and State Ambient Air Quality Attainment Status for Alameda County**

Criteria Pollutant	Federal Designation	State Designation
Ozone (8-hour)	Marginal Nonattainment	Nonattainment
Carbon Monoxide (CO)	Attainment (portion of the County)	Attainment
Particulate Matter (PM <sub>10</sub> )	Attainment	Nonattainment
Fine Particulate Matter (PM <sub>2.5</sub> )	Attainment	Nonattainment
Nitrogen Dioxide (NO <sub>2</sub> )	Attainment	Attainment
Sulfur Dioxide (SO <sub>2</sub> )	Attainment	Attainment
Lead	Attainment	Attainment
Sulfates	(No Federal Standard)	Attainment
Hydrogen Sulfide	(No Federal Standard)	Unclassified
Visibility Reducing Particles	(No Federal Standard)	Unclassified

Sources: California Air Resources Board. 2020b. *Summaries of Historical Area Designations for State Standards* (Alameda County). Available: <https://ww2.arb.ca.gov/our-work/programs/state-and-federal-area-designations/state-area-designations/summary-tables>. Accessed: March 16, 2020. U.S. Environmental Protection Agency. 2020. *Nonattainment Areas for Criteria Pollutants* (Green Book) (Alameda County). Available: <https://www.epa.gov/green-book>. Accessed: March 16, 2020.

## Locations of Sensitive Receptors

Sensitive land uses are defined as locations where human populations, especially children, seniors, and sick persons are located and where there is reasonable expectation of continuous human exposure according to the averaging period for the air quality standards (i.e., 24-hour or 8-hour). Per BAAQMD, typical sensitive land uses are residences, hospitals, and schools. Parks and playgrounds, where sensitive receptors (e.g., children and seniors) are present are considered sensitive land uses.<sup>22</sup>

<sup>22</sup> Bay Area Air Quality Management District. 2017b. *California Environmental Quality Act. Air Quality Guidelines*. May. Available: [https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa\\_guidelines\\_may2017-pdf.pdf?la=en](https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en). Accessed: March 16, 2020.

Currently, the project site consists of vacant and industrial uses and does not contain any sensitive receptors. Places of employment (e.g., at industrial uses) are not considered sensitive land uses because health-sensitive individuals (e.g., children and seniors) are not present. However, there are sensitive receptors, including residential uses, parks, and schools, within 1,000 feet of the project site. Residential uses surround the project site with residential uses located north of the project site, across 7<sup>th</sup> Street, to the west and across Decoto Road. Shorty Garcia Park and Willow Park are located approximately 100 feet east and 600 feet east of the project site, respectively. Guy Emanuele Jr. Elementary School is located approximately 650 feet east of the project site. Figure 4.1-1 illustrates sensitive receptors within 1,000 feet of the project site.

#### **4.1.1.2 Regulatory Setting**

The federal CAA and its subsequent amendments form the basis for the nation's air pollution control effort. EPA is responsible for implementing most aspects of the CAA. A key element of the CAA is the NAAQS for criteria pollutants. The CAA delegates enforcement of the NAAQS to the States. In California, CARB is responsible for enforcing air pollution regulations and ensuring the NAAQS and CAAQS are met. CARB, in turn, delegates regulatory authority for stationary sources and other air quality management responsibilities to local air agencies. BAAQMD is the local air agency for the project area. The following sections provide more detailed information on federal, State, and local air quality regulations that apply to the proposed project.

##### **Federal**

###### **Clean Air Act and National Ambient Air Quality Standards**

The CAA was first enacted in 1963 and has been amended in 1965, 1967, 1970, 1977, and 1990. The CAA establishes federal air quality standards, known as NAAQS, for six criteria pollutants and specifies future dates for achieving compliance. The CAA also mandates that the States submit and implement a State Implementation Plan (SIP) for local areas not meeting those standards. The plans must include pollution control measures that demonstrate how the standards will be met.

The 1990 CAA amendments identify specific emission-reduction goals for areas not meeting the NAAQS. These amendments require both a demonstration of reasonable further progress toward attainment and incorporation of additional sanctions for failure to attain or meet interim milestones. Table 4.1-3 shows the NAAQS currently in effect for each criteria pollutant, as well as the CAAQS (discussed further below).

###### **Non-road Diesel Rule**

EPA has established a series of increasingly strict emission standards for new off-road diesel equipment, on-road diesel trucks, and locomotives. New equipment, including heavy-duty trucks and off-road construction, is required to comply with these emission standards.

###### **Corporate Average Fuel Economy Standards**

The Corporate Average Fuel Economy Standards (CAFÉ) were first enacted in 1975 to improve the average fuel economy of cars and light duty trucks. The National Highway Traffic Safety Administrative (NHTSA) sets the CAFÉ standards, which are regulatory updated to require additional improvements in fuel economy. The standards were last updated in October 2012 to



**Table 4.1-3. Federal and State Ambient Air Quality Standards**

Criteria Pollutant	Average Time	California Standards	National Standards <sup>a</sup>	
			Primary	Secondary
Ozone	1-hour	0.09 ppm	None <sup>b</sup>	None <sup>b</sup>
	8-hour	0.070 ppm	0.070 ppm	0.070 ppm
CO	8-hour	9.0 ppm	9 ppm	None
	1-hour	20 ppm	35 ppm	None
PM <sub>10</sub>	24-hour	50 µg/m <sup>3</sup>	150 µg/m <sup>3</sup>	150 µg/m <sup>3</sup>
	Annual mean	20 µg/m <sup>3</sup>	None	None
PM <sub>2.5</sub>	24-hour	None	35 µg/m <sup>3</sup>	35 µg/m <sup>3</sup>
	Annual mean	12 µg/m <sup>3</sup>	12.0 µg/m <sup>3</sup>	15 µg/m <sup>3</sup>
NO <sub>2</sub>	Annual mean	0.030 ppm	0.053 ppm	0.053 ppm
	1-hour	0.18 ppm	0.100 ppm	None
SO <sub>2</sub> <sup>c</sup>	Annual mean	None	0.030 ppm	None
	24-hour	0.04 ppm	0.14 ppm	None
	3-hour	None	None	0.5 ppm
	1-hour	0.25 ppm	0.075 ppm	None
Lead	30-day Average	1.5 µg/m <sup>3</sup>	None	None
	Calendar quarter	None	1.5 µg/m <sup>3</sup>	1.5 µg/m <sup>3</sup>
	3-month average	None	0.15 µg/m <sup>3</sup>	0.15 µg/m <sup>3</sup>
Sulfates	24-hour	25 µg/m <sup>3</sup>	None	None
Visibility-reducing Particles	8-hour	- <sup>d</sup>	None	None
Hydrogen Sulfide	1-hour	0.03 ppm	None	None
Vinyl Chloride	24-hour	0.01 ppm	None	None

Source: California Air Resources Board. 2016. *Ambient Air Quality Standards*. May 4. Available: <https://ww3.arb.ca.gov/research/aaqs/aaqs2.pdf>. Accessed: March 16, 2020.

Notes:

ppm = parts per million; µg/m<sup>3</sup> = micrograms per cubic meter; mg/m<sup>3</sup> = milligrams per cubic meter

<sup>a</sup> National standards are divided into primary and secondary standards. Primary standards are intended to protect public health, whereas secondary standards are intended to protect public welfare and the environment.

<sup>b</sup> The federal 1-hour standard of 12 parts per hundred million was in effect from 1979 through June 15, 2005. The revoked standard is referenced because it was employed for such a long period and is a benchmark for SIPs.

<sup>c</sup> The annual and 24-hour NAAQS for SO<sub>2</sub> only apply for 1 year after designation of the new 1-hour standard to those areas that were previously in nonattainment for 24-hour and annual NAAQS.

<sup>d</sup> CAAQSs for visibility-reducing particles is defined by an extinction coefficient of 0.23 per kilometer, which is visibility of 10 miles or more due to particles when relative humidity is less than 70 percent.

apply to new passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2017 through 2025, and are equivalent to 54.5 miles per gallon. However, On August 2, 2018, NHTSA and EPA proposed to amend the fuel efficiency standards for passenger cars and light trucks and establish new standards covering model years 2021 through 2026 by maintaining the current model year 2020 standards through 2026 per the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule. On September 19, 2019, EPA and NHTSA issued a final action on the One National Program Rule, which is considered Part 1 of the SAFE Vehicles Rule and a precursor to the proposed fuel efficiency standards. The One National Program Rule enables EPA/NHTSA to provide

nationwide uniform fuel economy and greenhouse gas (GHG) vehicle standards, specifically by 1) clarifying that federal law preempts State and local tailpipe greenhouse (GHG) standards, 2) affirming NHTSA's statutory authority to set nationally applicable fuel economy standards, and 3) withdrawing California's CAA preemption waiver to set State-specific standards.

EPA and NHTSA published their decisions to withdraw California's waiver and finalize regulatory text related to the preemption on September 27, 2019 per Title 84 of the *Federal Register* Section 51310. The agencies also announced that they will later publish the second part of the SAFE Vehicles Rule (i.e., the standards). California, 22 other States, the District of Columbia, and two cities filed suit against the proposed One National Program Rule on September 20, 2019.<sup>23</sup> The lawsuit requests a "permanent injunction prohibiting Defendants from implementing or relying on the Preemption Regulation," but does not stay its implementation during legal deliberations. Part 1 of the SAFE Vehicles Rule went into effect on November 26, 2019, and Part 2 went into effect on March 30, 2020. The SAFE Vehicles Rule will decrease the stringency of CAFÉ standards to 1.5 percent each year through model year 2026, as compared with the standards issued in 2012, which would have required about 5 percent annual increases.

## State

### California Clean Air Act and California Ambient Air Quality Standards

In 1988, the State legislature adopted the California Clean Air Act (CCAA), which established a statewide air pollution control program. The CCAA requires all air districts in the State to endeavor to meet the CAAQS by the earliest practical date. Unlike the CAA, the CCAA does not set precise attainment deadlines. Instead, the CCAA establishes increasingly stringent requirements for areas that will require more time to achieve the standards. CAAQS are generally more stringent than NAAQS and incorporate additional standards for sulfates, hydrogen sulfide, visibility-reducing particles, and vinyl chloride. The CAAQS and NAAQS are shown in Table 4.1-3.

CARB and local air districts bear responsibility for meeting the CAAQS, which are to be achieved through district-level air quality management plans incorporated into a SIP. In California, EPA has delegated authority to prepare SIPs to CARB, which, in turn, has delegated that authority to individual air districts. CARB traditionally has established State air quality standards, maintaining oversight authority in air quality planning, developing programs for reducing emissions from motor vehicles, developing air emission inventories, collecting air quality and meteorological data, and approving SIPs.

The CCAA substantially adds to the authority and responsibilities of air districts. The CCAA designates air districts as lead air quality planning agencies, requires air districts to prepare air quality plans, and grants air districts authority to implement transportation control measures. The CCAA also emphasizes the control of "indirect and area-wide sources" of air pollutant emissions. The CCAA gives local air pollution control districts explicit authority to regulate indirect sources of air pollution.

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<sup>23</sup> California et al. v. United States Department of Transportation et al., 1:19-cv-02826, U.S. District Court for the District of Columbia.

### **Statewide Truck and Bus Regulation**

Originally adopted in 2005, the on-road truck and bus regulation requires heavy trucks to be retrofitted with PM filters. The regulation applies to privately and federally owned diesel-fueled trucks with a gross vehicle weight rating greater than 14,000 pounds. Compliance with the regulation can be reached through one of two paths: (1) vehicle retrofits according to engine year or (2) phase-in schedule. Compliance paths ensure that by January 2023, nearly all trucks and buses will have 2010 model year engines or newer.

### **State Tailpipe Emission Standards**

Like EPA at the federal level, CARB has established a series of increasingly strict emission standards for new off-road diesel equipment and on-road diesel trucks operating in California. New equipment used to construct the proposed project would be required to comply with the standards.

### **Carl Moyer Program**

The Carl Moyer Memorial Air Quality Standards Attainment Program (Carl Moyer Program) is a voluntary program that offers grants to owners of heavy-duty vehicles and equipment. The program is a partnership between CARB and the local air districts throughout the State to reduce air pollution emissions from heavy-duty engines. Locally, the air districts administer the Carl Moyer Program.

### **Toxic Air Contaminant Regulation**

California regulates TACs primarily through the Toxic Air Contaminant Identification and Control Act (Tanner Act) and the Air Toxics “Hot Spots” Information and Assessment Act of 1987 (“Hot Spots” Act). In the early 1980s, CARB established a statewide comprehensive air toxics program to reduce exposure to air toxics. The Tanner Act created California’s program to reduce exposure to air toxics. The “Hot Spots” Act supplements the Tanner Act by requiring a statewide air toxics inventory, notification of people exposed to a significant health risk, and facility plans to reduce these risks.

CARB has identified DPM as a TAC and has approved a comprehensive *Diesel Risk Reduction Plan* to reduce emissions from both new and existing diesel-fueled engines and vehicles.<sup>24</sup> The goal of the plan is to reduce DPM emissions and the associated health risk by 75 percent by 2010 and by 85 percent by 2020. The plan identifies 14 measures that CARB will implement over the next several years. The project would be required to comply with any applicable diesel control measures from the *Diesel Risk Reduction Plan*.

## **Local**

### **Bay Area Air Quality Management District**

At the local level, responsibilities of air quality districts include overseeing stationary-source emissions, approving permits, maintaining emissions inventories, maintaining air quality stations, overseeing agricultural burning permits, and reviewing air quality-related sections of environmental documents required by the California Environmental Quality Act (CEQA). The air

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<sup>24</sup> California Air Resources Board. 2000. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engine and Vehicles*. October. Available: <https://ww3.arb.ca.gov/diesel/documents/rrpfinal.pdf>. Accessed: March 16, 2020.

quality districts are also responsible for establishing and enforcing local air quality rules and regulations that address the requirements of federal and State air quality laws and for ensuring that NAAQS and CAAQS are met.

The project falls under the jurisdiction of the BAAQMD. The BAAQMD has local air quality jurisdiction over projects in the SFBAAB including San Mateo County. BAAQMD developed advisory emission thresholds to assist CEQA lead agencies in determining the level of significance of a project's emissions, which are outlined in its *California Environmental Quality Act Air Quality Guidelines* (CEQA Guidelines)<sup>25</sup>. BAAQMD has also adopted air quality plans to improve air quality, protect public health, and protect the climate, including the *2017 Clean Air Plan: Spare the Air, Cool the Climate*.<sup>26</sup>

The *2017 Clean Air Plan* was adopted by the BAAQMD on April 19, 2017. The *2017 Clean Air Plan* updates the prior 2010 Bay Area ozone plan and outlines feasible measures to reduce ozone; provides a control strategy to reduce particulate matter, air toxics, and GHGs in a single, integrated plan; and establishes emission control measures to be adopted or implemented. The *2017 Clean Air Plan* contains the following primary goals; consistency with these goals is evaluated in this section.

- Protect Air Quality and Health at the Regional and Local Scale: Attain all State and national air quality standards, and eliminate disparities among Bay Area communities in cancer health risk from TACs
- Protect the Climate: Reduce Bay Area GHG emissions to 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050; the *2017 Clean Air Plan* is the most current applicable air quality plan for the air basin and consistency with this plan is the basis for determining whether the project would conflict with or obstruct implementation of an air quality plan

In addition to air quality plans, BAAQMD also adopts rules and regulations to improve existing and future air quality. The project may be subject to the following district rules.

- Regulation 2, Rule 2 (New Source Review)—This regulation contains requirements for Best Available Control Technology and emission offsets
- Regulation 2, Rule 5 (New Source Review of Toxic Air Contaminates)—This regulation outlines guidance for evaluating TAC emissions and their potential health risks
- Regulation 6, Rule 1 (PM)—This regulation restricts emissions of PM darker than a 1 on the Ringlemann Chart to less than 3 minutes in any 1 hour
- Regulation 7 (Odorous Substances)—This regulation establishes general odor limitations on odorous substances and specific emission limitations on certain odorous compounds
- Regulation 8, Rule 3 (Architectural Coatings)—This regulation limits the quantity of ROG in architectural coatings

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<sup>25</sup> Bay Area Air Quality Management District. 2017b. *California Environmental Quality Act. Air Quality Guidelines*. May. Available: [https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa\\_guidelines\\_may2017-pdf.pdf?la=en](https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en). Accessed: March 16, 2020.

<sup>26</sup> Bay Area Air Quality Management District. 2017a. *Final 2017 Clean Air Plan*. Adopted April 19. Available: [https://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a\\_-proposed-final-cap-vol-1-pdf.pdf?la=en](https://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en). Accessed: March 16, 2020.

- Regulation 9, Rule 6 (NO<sub>x</sub> Emission from Natural Gas-Fired Boilers and Water Heaters)—This regulation limits emissions of NO<sub>x</sub> generated by natural gas-fired boilers
- Regulation 9, Rule 8 (Stationary Internal Combustion Engines)—This regulation limits emissions of NO<sub>x</sub> and CO from stationary internal combustion engines of more than 50 horsepower
- Regulation 11, Rule (Hazardous Pollutants – Asbestos Demolition, Renovation, and Manufacturing)—This regulation, which incorporates EPA’s asbestos National Emissions Standards for Hazardous Air Pollutants (NESHAP) regulations, controls emissions of asbestos to the atmosphere during demolition, renovation, and transport activities

## City of Union City

### City of Union City 2040 General Plan

The *City of Union City 2040 General Plan* (General Plan)<sup>27</sup> includes the following goals and policies associated with air quality:

**Policy RC-5.1: Air Quality Plan Implementation.** The City shall cooperate with the Bay Area Air Quality Management District to implement the Air Quality Plan and enforce air quality standards.

**Policy RC-5.2: Air Quality During Construction and Operations.** The City shall require that development projects incorporate BAAQMD’s Basic Construction Mitigation Measures to reduce construction and operational emissions for ROG, NO<sub>x</sub>, and PM (PM<sub>10</sub> and PM<sub>2.5</sub>).

**Policy RC-5.4: Minimize Odors.** The City shall require all businesses, in particular fast food and manufacturing, to minimize odors generated by the business so that the odors are not detectable off-site.

**Policy RC-5.5: Health Risk Assessments.** The City shall implement BAAQMD CEQA Guidelines and State Office of Environmental Health Hazard Assessment policies and procedures requiring health risk assessments (HRAs) for new residential development and other sensitive receptors, as defined in the BAAQMD CEQA Guidelines, within 1,000 feet of sources of toxic air contaminants, including freeways and roadways with over 10,000 vehicle trips per day. Based on the results of the HRA, the City shall identify and implement measures, such as air filtration systems, to reduce potential exposure to particulate matter, carbon monoxide, diesel fumes, and other potential health hazards. Measures identified in HRAs shall be included into the site development plan as a component of a proposed project.

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<sup>27</sup> City of Union City. 2020. *Union City 2040 General Plan Update*. Adopted: December 2019. Chapter 6: Safety Element. Available: <http://www.uc2040.com/documents/>. Accessed: March 25, 2020.

## 4.1.2 Environmental Impacts

This section contains the impact analysis for the project as it relates to air quality. The methods used to determine the potential project-related impacts, as well as the thresholds of significance used to conclude whether or not an impact would be significant, are described below. Measures that would mitigate (i.e., avoid, minimize, rectify, eliminate, or compensate for) significant impacts are included within each impact discussion where they have been deemed necessary and appropriate.

### 4.1.2.1 Thresholds of Significance

California Environmental Quality Act (CEQA) Guidelines Appendix G (14 California Code of Regulations [CCR] 15000 et seq.) identifies significance criteria to be considered for determining whether a project could have significant impacts on air quality. Would the project result in:

- Conflict with or obstruct implementation of the applicable air quality plan?
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or State ambient air quality standard?
- Expose sensitive receptors to substantial pollutant concentrations?
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

As discussed above, all pollutants that would be generated by the proposed project are associated with some form of health risk (e.g., asthma, lower respiratory problems). Criteria pollutants can be classified as either regional or localized pollutants, Regional pollutants can be transported over long distances and affect ambient air quality far from the emissions source. Localized pollutants affect ambient air quality near the emissions source. As discussed above, the primary pollutants of concern generated by the project are ozone precursors (ROG and NO<sub>x</sub>), CO, PM, and TACs (including DPM and asbestos). The following sections discuss thresholds and analysis considerations for regional and local project-generated criteria pollutants with respect to their human health implications. Thresholds and guidance for evaluating potential odors associated with the project area also presented.

### **Regional Project-Generated Criteria Pollutant Emissions (Ozone Precursors and Regional Particulate Matter)**

This analysis evaluates the impacts of regional emissions generated by the project using a two-tiered approach that considers guidance recommended by BAAQMD in their CEQA Guidelines.<sup>28</sup>

First, this analysis considers whether the project would conflict with the most recent air quality plan.<sup>29</sup> The impact analysis evaluates whether the project supports the primary goals of the *2017 Clean Air Plan*, including applicable control measures from the *2017 Clean Air Plan*, and whether it would disrupt or hinder implementation of any *2017 Clean Air Plan* control measure.

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<sup>28</sup> Bay Area Air Quality Management District. 2017b. *California Environmental Quality Act. Air Quality Guidelines*. May. Available: [https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa\\_guidelines\\_may2017-pdf.pdf?la=en](https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en). Accessed: March 16, 2020.

<sup>29</sup> Bay Area Air Quality Management District. 2017a. *Final 2017 Clean Air Plan*. Adopted April 19. Available: [https://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a\\_-proposed-final-cap-vol-1-pdf.pdf?la=en](https://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en). March 16, 2020.

Second, calculated regional criteria pollutant emissions are compared to BAAQMD's project-level thresholds. BAAQMD's thresholds are summarized in Table 4.1-4 and are recommended by the air district to evaluate the significance of a project's regional criteria pollutant emissions<sup>30, 31</sup> According to the BAAQMD, projects with emissions in excess of the thresholds shown in Table 4.1-4 would be expected to have a significant cumulative impact on regional air quality, because an exceedance of the thresholds is anticipated to contribute to CAAQS and NAAQS violations.

**Table 4.1-4. BAAQMD Project-Level Regional Criteria Pollutant Emission Thresholds**

Analysis	Thresholds
Regional Criteria Pollutants (Construction)	<ul style="list-style-type: none"> <li>• Reactive Organic Gases: 54 pounds/day</li> <li>• Nitrogen Oxides: 54 pounds/day</li> <li>• Particulate Matter: 82 pounds/day (exhaust only); compliance with best management practices (fugitive dust)</li> <li>• Fine Particulate Matter: 54 pounds/day (exhaust only); compliance with best management practices (fugitive dust)</li> </ul>
Regional Criteria Pollutants (Operations)	<ul style="list-style-type: none"> <li>• Reactive Organic Gases: Same as construction.</li> <li>• Nitrogen Oxides: Same as construction</li> <li>• Particulate Matter: 82 pounds/day (exhaust only)</li> <li>• Fine Particulate Matter: 54 pounds/day (exhaust only)</li> </ul>

Source: Bay Area Air Quality Management District. 2017b. *California Environmental Quality Act. Air Quality Guidelines*. May. Available: [https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa\\_guidelines\\_may2017-pdf.pdf?la=en](https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en). Accessed: March 16, 2020.

Adverse health effects induced by regional criteria pollutant emissions generated by the proposed project (ozone precursors and PM) are highly dependent on a multitude of interconnected variables (e.g., cumulative concentrations, local meteorology and atmospheric conditions, the number and character of exposed individuals [e.g., age, gender]). For these reasons, ozone precursors (ROG and NO<sub>x</sub>) contribute to the formation of ground-borne ozone on a regional scale. Emissions of ROG and NO<sub>x</sub> generated in one area may not equate to a specific ozone concentration in that same area. Similarly, some types of particulate pollution may be transported over long-distances or formed through atmospheric reactions. As such, the magnitude and locations of specific health effects from exposure to increased ozone or regional PM concentrations are the product of emissions generated by numerous sources throughout a region, as opposed to a single individual project. Moreover, exposure to regional air pollution does not guarantee that an individual will experience an adverse health effect, as there are large individual differences in the intensity of symptomatic responses to air pollutant. These differences are influenced, in part, by the underlying health condition of an individual, which cannot be known.

<sup>30</sup> Bay Area Air Quality Management District. 2017b. *California Environmental Quality Act. Air Quality Guidelines*. May. Available: [https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa\\_guidelines\\_may2017-pdf.pdf?la=en](https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en). Accessed: March 16, 2020.

<sup>31</sup> The proposed project would include residential and commercial uses totaling 1,847,294 square feet, exceeding BAAQMD's screening level sizes for residential and commercial uses. In addition, the proposed project would include demolition activities. As such, per BAAQMD, construction-related emissions of criteria pollutants should be quantified and compared to the construction-related thresholds shown in Table 4.1-5.

Nonetheless, emissions generated by the proposed project could increase photochemical reactions and the formation of tropospheric ozone and secondary PM, which at certain concentrations, could lead to increased incidence of specific health consequences, such as various respiratory and cardiovascular ailments. As discussed previously, air districts develop region-specific CEQA thresholds of significance in consideration of existing air quality concentrations and attainment designations under the NAAQS and CAAQS. The NAAQS and CAAQS are informed by a wide range of scientific evidence that demonstrates there are known safe concentrations of criteria pollutants. Accordingly, the proposed project would expose receptors to substantial regional pollution if any of the thresholds summarized in Table 4.1-4 are exceeded.

### **Localized Project-Generated Criteria Pollutant Emissions (Carbon Monoxide and Particulate Matter) and Air Toxics (Diesel Particulate Matter)**

Localized pollutants generated by a project are deposited and potentially affect population near the emissions source. Because these pollutants dissipate with distance, emissions from individual projects can result in direct and material health impacts on adjacent sensitive receptors. The localized pollutants of concern that would be generated by the project are CO, PM, and DPM. The applicable thresholds for each pollutant are described below.

#### **Carbon Monoxide**

Heavy traffic congestion can contribute to high levels of CO, and individuals exposed to such hot spots may have a greater likelihood of developing adverse health effects. BAAQMD has adopted screening criteria that provide a conservative indication of whether project-generated traffic would cause a potential CO hot spot. If the screening criteria are not met, a quantitative analysis through site-specific dispersion modeling of project-related CO concentrations would not be necessary, and the project would not cause localized violations of the CAAQS for CO. BAAQMD's CO screening criteria are summarized below.<sup>32</sup>

- The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour
- The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway)
- The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans

BAAQMD does not consider construction-generated CO a significant pollutant of concern because construction activities typically do not generate substantial quantities of this pollutant.<sup>33</sup>

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<sup>32</sup> Bay Area Air Quality Management District. 2017b. *California Environmental Quality Act. Air Quality Guidelines*. May. Available: [https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa\\_guidelines\\_may2017-pdf.pdf?la=en](https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en). Accessed: March 16, 2020.

<sup>33</sup> Ibid.



### Particulate Matter

BAAQMD adopted an incremental PM<sub>2.5</sub> concentration-based significance threshold in which a “substantial” contribution at the project level for an individual source is defined as total (i.e., exhaust and fugitive) PM<sub>2.5</sub> concentrations exceeding 0.3 µg/m<sup>3</sup>. In addition, BAAQMD considers projects to have a cumulatively considerable PM<sub>2.5</sub> impact if sensitive receptors are exposed to PM<sub>2.5</sub> concentrations from local sources within 1,000 feet, including existing sources, project-related sources, and reasonably foreseeable future sources, that exceed 0.8 µg/m<sup>3</sup>.<sup>34</sup>

BAAQMD has not established PM<sub>10</sub> thresholds of significance. BAAQMD’s PM<sub>2.5</sub> thresholds apply to both new receptors and new sources. However, BAAQMD considers fugitive PM<sub>10</sub> from earth moving activities to be less than significant with application of BAAQMD’s Basic Construction Mitigation Measures.

### Diesel Particle Matter

DPM has been identified as a TAC and is particularly concerning because long-term exposure can lead to cancer, birth defects, and damage to the brain and nervous systems. BAAQMD has adopted incremental cancer and hazard thresholds to evaluate receptor exposure to single sources of DPM emissions. The “substantial” DPM threshold defined by BAAQMD is exposure of a sensitive receptor to an individual emissions source, resulting in an excess cancer risk level of more than 10 in 1 million or a non-cancer (i.e., chronic or acute) hazard index (HI) greater than 1.0.<sup>35</sup> The air district also considers projects to have a cumulatively considerable DPM impact if they contribute to DPM emissions, that when combined with cumulative sources within 1,000 feet of sensitive receptors, result in excess cancer risk levels of more than 100 in 1 million or an HI greater than 10.0. BAAQMD considers projects to have a significant cumulative impact if it introduces new receptors at a location where the combined exposure of all cumulative sources within 1,000 feet is excess of cumulative thresholds.<sup>36</sup>

### Asbestos

BAAQMD considers a project to have a significant impact if it does not comply with the applicable regulatory requirements outlined in BAAQMD’s Regulation 11, Rule 2.

### Odors

BAAQMD<sup>37</sup> and CARB<sup>38</sup> have identified several types of land uses as being commonly associated with odors, such as landfills, wastewater treatment facilities, and animal processing centers. BAAQMD’s *CEQA Guidelines* recommend that project analyses identify the location of existing and planned odor sources and include policies to reduce potential odor impacts in the project area.

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<sup>34</sup> Ibid.

<sup>35</sup> Ibid.

<sup>36</sup> Ibid.

<sup>37</sup> Ibid.

<sup>38</sup> California Air Resources Board. 2005. *Air Quality and Land Use Handbook: A Community Health Perspective*. April. Available: <https://ww3.arb.ca.gov/ch/handbook.pdf>. Accessed: March 16, 2020.

### 4.1.2.2 Methods for Analysis

As described in Section 4, *Environmental Impact Analysis*, subsequent to the drafting of this EIR, the applicant indicated that the residential units associated with proposed project would increase by 10, from 964 to 974 units. As described therein, the analysis presented throughout this EIR adequately accounts for the potential environmental impacts of the 974 new residential units.

#### Construction Emissions

Land uses that could be developed under the proposed project would generate construction-related emissions from mobile and stationary construction equipment exhaust, employee and haul truck vehicle exhaust, land clearing and material movement, paving, and application of architectural coatings. Criteria pollutant emissions were estimated using the California Emissions Estimator Model (CalEEMod) (version 2016.3.2). CalEEMod default data values were assumed for equipment operating details and trip numbers and lengths based on the anticipated land uses that comprise the proposed project. Construction schedule and material quantities were provided by the project applicant. These data were used to estimate construction emissions. Emissions from gasoline light duty vehicles (e.g., construction workers) were adjusted to account for the impact of the implementation of the SAFE Vehicles Rule. The construction modeling inputs and CalEEMod outputs are provided in **Appendix 4.1**.

#### Diesel Particulate Matter Analysis

Diesel-powered construction equipment and emergency generators during project operations would emit DPM that could expose nearby sensitive receptors to increased cancer and non-cancer risks. Given that the proposed project would introduce DPM emissions to an area near existing sensitive receptors and site new sensitive receptors, a human HRA was performed using EPA's most recent dispersion model, AERMOD (version 191901); chronic risk assessment values presented by OEHHA; and other assumptions for model inputs from BAAQMD's *Air Toxics NSR Program Health Risk Assessment Guidelines*.<sup>39</sup> The HRA takes into account OEHHA's most recent guidance and calculation methods from the *Air Toxics Hot Spots Program Guidance Manual for the Preparation of Risk Assessments*.<sup>40</sup>

The HRA analyzes health risks to nearby sensitive receptors from construction activities and testing of an emergency diesel-powered generator during project operation. The human HRA consists of three parts: a DPM inventory, air dispersion modeling, and risk calculations. A description of each of these parts follows.

#### DPM Inventory

The DPM inventory includes mitigated emissions associated with short-term construction activity and emissions from testing of the emergency back-up generator. The construction DPM inventory was assumed to be equal to the CalEEMod output results for diesel PM<sub>2.5</sub> exhaust. The construction PM<sub>2.5</sub> inventory was assumed to be equal to the CalEEMod output results for the sum of PM<sub>2.5</sub> exhaust and fugitive dust. The operational DPM inventory is assumed to be equal to the CalEEMod output results for diesel PM<sub>2.5</sub> exhaust from the generator.

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<sup>39</sup> Bay Area Air Quality Management District. 2016. *BAAQMD Air Toxics NSR Program Health Risk Assessment Guidelines*. December. Available: [https://www.baaqmd.gov/~media/files/planning-and-research/permit-modeling/hra\\_guidelines\\_12\\_7\\_2016\\_clean-pdf.pdf?la=en](https://www.baaqmd.gov/~media/files/planning-and-research/permit-modeling/hra_guidelines_12_7_2016_clean-pdf.pdf?la=en). Accessed: March 31, 2020.

<sup>40</sup> Office of Environmental Health Hazard Assessment. 2015. *Risk Assessment Guidelines*. February. Available: <https://oehha.ca.gov/media/downloads/crn/2015guidancemanual.pdf>. Accessed: March 31, 2020.

## Air Dispersion Modeling

The HRA uses EPA's AERMOD to model annual average DPM and PM<sub>2.5</sub> concentrations at nearby receptors. Modeling inputs, including emissions rates (in grams of pollutant emitted per second) and source characteristics (e.g., release height, stack diameter, plume width), were based on guidance provided by OEHHA and BAAQMD. Meteorological data were obtained from CARB for the Oakland International Airport location, which is the nearest monitoring station, located approximately 13 miles northwest of the project site.

Construction equipment emissions were characterized as an area source (AREAPOLY) with a release height of 0.9 meters for fugitive dust emissions and 4.1 meters for all other emissions. Two construction area sources were modeled, which include the project site and associated track work south of the project site. Haul and vendor truck emissions were characterized as line/area sources (LINEAREA) with release heights of 0.9 meters for fugitive dust emissions and 3.4 meters for all other emissions. Emissions from off-road equipment were assumed to be generated throughout the construction footprint. Emissions from off-site trucks were modeled along 1,000-foot segments adjacent to the construction footprint along 7<sup>th</sup> Street and Decoto Road.

The modeling of emissions from construction activities was based on the construction hours and days (8:00 a.m. to 8:00 p.m., five days per week) during 2021 through 2025. To account for plume rise associated with mechanically generated construction emissions sources for the AERMOD run, the initial vertical dimension of the area source was modeled at 3.81 meters; for the line/area sources, it was modeled at 3.16 meters. The urban dispersion option was used based on the project site's characteristics.

Offsite sensitive receptors were placed at individual homes in all directions within 1,000 feet of the construction work areas and haul roads. Onsite sensitive receptors were conservatively placed throughout the entire construction area. A 20-by-20-meter receptor grid was used to place receptors.

Operational emissions from testing of the new 805 horsepower diesel emergency back-up generator were characterized as one separate vertical point source (POINT).<sup>41</sup> The location of the generator was estimated based on the project site plan, and the urban dispersion option was assumed. The modeling of emissions from generator activities utilized a 12-hour testing window per day (7:00 a.m. to 7:00 p.m.), as testing was assumed to occur during daytime hours. Variables, including release height (15.2 meters) and stack diameter (0.19 meters), were taken from comprehensive modeling information provided by the San Joaquin Valley Air Pollution Control District (SJVAPCD) for a 750 to 825 horsepower generator they tested.<sup>42</sup> Sensitive receptor locations were placed using a grid with 20-meter spacings in all directions within 1,000 feet of the generator on the project site.

A complete list of dispersion modeling inputs is provided in **Appendix 4.1**.

## Risk Calculations

The risk calculations incorporate OEHHA's age-specific factors that account for increased sensitivity to carcinogens during early-in-life exposure. The approach for estimating cancer risk from long-term inhalation, with exposure to carcinogens, requires calculating a range of potential doses and

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<sup>41</sup> The proposed project would also install seven electric battery generators. As these generators would not generate DPM or PM<sub>2.5</sub>, they were not included in the health risk analysis.

<sup>42</sup> San Joaquin Valley Unified Air Pollution Control District. 2015. Final Staff Report – Update to District's Risk Management Policy to Address OEHHA's Revised Risk Assessment Guidance Document. May 28.

multiplying by cancer potency factors in units corresponding to the inverse dose to obtain a range of cancer risks. For cancer risk, the risk for each age group is calculated using the appropriate daily breathing rates, age sensitivity factors, and exposure durations. The cancer risks calculated for individual age groups are summed to estimate the cancer risk for each receptor. Chronic cancer and hazard risks were calculated using OEHHA's 2015 HRA guidance.<sup>43</sup> According to BAAQMD guidance, residential cancer risks assume a 30-year exposure.<sup>44</sup> Because mitigated emissions were used to model cancer risks and PM<sub>2.5</sub> concentrations, unmitigated risks and PM<sub>2.5</sub> concentrations were scaled proportionate to the unmitigated emissions inventory. The risk calculations and additional assumptions are provided in **Appendix 4.1**.

## Phase 1 Emissions

Partial buildout of the proposed project (Phase 1) would occur in 2023. Air quality impacts from concurrent construction and operation were evaluated in this EIR, using methods consistent with those described above for construction emissions and below for operational emissions. Operational emissions in 2023 were added to construction emissions estimated for 2024 to show the daily emissions anticipated. This is conservative as construction emissions in 2024 are the highest amongst the remaining years of construction.

## Operational Mobile Source Emissions

Air quality impacts from motor vehicles operating within and to and from the project site were evaluated using CARB's EMFAC2017 model and traffic data for the proposed project were provided by Fehr & Peers. Fehr & Peers provided daily vehicle miles traveled (VMT) and trips for the with-project condition. In order to estimate daily VMT and trips for partial buildout (Phase 1) in 2023, daily project VMT and trips were proportioned by operational square footage in 2024. Emissions from gasoline light duty vehicles (e.g., residents, tenants, workers) were adjusted to account for the impact of the implementation of the SAFE Vehicles Rule.

Criteria pollutants emissions from vehicle movement were calculated by multiplying the VMT estimates by the appropriate emission factors from the EMFAC2017 model. These emissions were added to process emissions (i.e., emission from vehicle starts, running losses, etc.), which were calculated by multiplying the daily trips by the appropriate emission factors provided by the EMFAC2017 model. The EMFAC2017 model emission factors and traffic data used for analysis are provided in **Appendix 4.1**. Refer to Section 4.14, *Transportation*, for more details regarding the project's trip generation.

## Operational Area, Energy, and Stationary Source Emissions

Area, energy, and stationary emissions were estimated for in 2023 (partial buildout) and 2025 using CalEEMod (version 2016.3.2). Area source emissions are generated by the use of landscape maintenance equipment, repainting of buildings, and use of consumer products. Energy sources include the combustion of natural gas for building heating and hot water. Stationary sources include

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<sup>43</sup> Office of Environmental Health Hazard Assessment. 2015. *Risk Assessment Guidelines*. February. Available: <https://oehha.ca.gov/media/downloads/crn/2015guidancemanual.pdf>. Accessed: March 31, 2020.

<sup>44</sup> Bay Area Air Quality Management District. 2016. *BAAQMD Air Toxics NSR Program Health Risk Assessment Guidelines*. December. Available: [https://www.baaqmd.gov/~media/files/planning-and-research/permit-modeling/hra\\_guidelines\\_12\\_7\\_2016\\_clean-pdf.pdf?la=en](https://www.baaqmd.gov/~media/files/planning-and-research/permit-modeling/hra_guidelines_12_7_2016_clean-pdf.pdf?la=en). Accessed: March 31, 2020.

an emergency back-up diesel-powered generator. Emissions were quantified for with project conditions. CalEEMod default values were assumed based on the anticipated land uses of the proposed project. The CalEEMod output files are provided in **Appendix 4.1**.

### Carbon Monoxide Hot-Spots Modeling

The analysis of CO impacts was conducted using CARB's EMFAC2017 model, the CALINE4 dispersion model, and nighttime peak-hour turning movement data provided by Fehr & Peers for the intersections at Mission Boulevard/Nursery Avenue and Mission Boulevard/Niles Canyon Road. These intersections did not meet BAAQMD's CO screening criteria. Emissions from gasoline powered light-duty vehicles were adjusted to account for the impact of the implementation of the SAFE Vehicles Rule.

Traffic conditions for the proposed project were modeled to evaluate CO hot spot concentrations at the Mission Boulevard/Nursery Avenue and Mission Boulevard/Niles Canyon Road intersections. Receptors were placed at each intersection corner and at a standard receptor elevation of 5.9 feet.<sup>45</sup> Worst-case wind angles and meteorological conditions were modeled to estimate conservative CO concentrations at each receptor. CO concentrations from the nearest monitoring station to the project area (i.e., 9925 International Boulevard, City of Oakland) for 2017 through 2019 (i.e., years where complete data are available) were gathered and converted into a 3-year average to represent background CO levels. The output files are provided in **Appendix 4.1**.

#### 4.1.2.3 Impacts and Mitigation Measures

##### **Impact AQ-1: The proposed project would not conflict with or obstruct implementation of the applicable air quality plan. (Less than Significant)**

The CAA requires that a SIP or an air quality control plan be prepared for areas with air quality violating the NAAQS. The SIP sets forth the strategies and pollution control measures that States will use to attain the NAAQS. The CCAA requires attainment plans to demonstrate a 5 percent per year reduction in nonattainment air pollutants or their precursors, averaged every consecutive 3-year period, unless an approved alternative measure of progress is developed. Air quality attainment plans (AQAP) outline emissions limits and control measures to achieve and maintain these standards by the earliest practical date. The current AQAP for the SFBAAB is the *2017 Clean Air Plan*.<sup>46</sup>

According to BAAQMD's CEQA Guidelines, the determination of *2017 Clean Air Plan* consistency should consider the following for project-level analyses.<sup>47</sup>

- Does the project support the primary goals of the *2017 Clean Air Plan*?
- Does the project include applicable control measures from the *2017 Clean Air Plan*?
- Does the project disrupt or hinder implementation of any *2017 Clean Air Plan* control measure?

Each of these questions is addressed below for the proposed project.

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<sup>45</sup> Garza et al. 1997. Transportation Project-Level Carbon Monoxide Protocol. December.

<sup>46</sup> Bay Area Air Quality Management District. 2017a. *Final 2017 Clean Air Plan*. Adopted April 19. Available: [https://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a\\_-proposed-final-cap-vol-1-pdf.pdf?la=en](https://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en). Accessed: March 16, 2020.

<sup>47</sup> Bay Area Air Quality Management District. 2017b. California Environmental Quality Act. Air Quality Guidelines. May. Available: [https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa\\_guidelines\\_may2017-pdf.pdf?la=en](https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en). Accessed: March 16, 2020.

### **Support of 2017 Clean Air Plan Goals**

The primary goals of the *2017 Clean Air Plan* are to (1) reduce emissions and decrease concentrations of harmful pollutants, (2) safeguard public health by reducing exposure to air pollutants that pose the greatest health risk, and (3) reduce GHG emissions and protect the climate. The proposed project includes numerous improvements that will support regional attainment of the CAAQS and NAAQS. For example, the proposed project includes sustainability features that would support sustainable building design, reduction in GHG emissions, and coordination at the local and regional levels to improve local and regional air quality. Specifically, the proposed project would install high-efficiency appliances and electric charging stations, improve connectivity between project residents and the existing bus stops along Decoto Road and 7<sup>th</sup> Street, expand the bicycle network within the project, and encourage walking within the project area by reducing pedestrian crossing distances by providing bulb-outs on all street corners. The proposed project would provide triple bins (i.e., bins for waste, recycling and composting), and install water conserving appliances. Outdoor water conservation measures include installation and maintenance of water-efficient landscaping with low-usage plant material to minimize irrigation requirements. Furthermore, the proposed project would comply with all applicable City and State measures, including Title 24, Part 6, of the California Energy Code baseline standard requirements for energy efficiency.

Based on the above analysis, the proposed project would support the primary goals of the *2017 Clean Air Plan*.

### **Support Applicable Control Measures**

To meet the primary goals, the *2017 Clean Air Plan* recommends specific control measures and actions. These control measures are grouped into various categories and include stationary source measures, mobile-source measures, and transportation control measures. The *2017 Clean Air Plan* recognizes that community design dictates individual travel mode and that a key long-term control strategy to reduce emissions of criteria pollutants, air toxics, and GHGs from motor vehicles is to channel future Bay Area growth into vibrant urban communities where goods and services are close at hand and people have a range of viable transportation options. To this end, the *2017 Clean Air Plan* includes control measures that are aimed at reducing air pollution in the SFBAAB.

The measures most applicable to the proposed project are transportation, energy, building, waste management, water, and stationary source-control measures. These measures include the following:

- TR2: Trip Reduction Programs – Implement the regional Commuter Benefits Program (Rule 14-1) that requires employers with 50 or more Bay Area employees to provide commuter benefits. Encourage trip reduction policies and programs in local plans, e.g., general and specific plans while providing grants to support trip reduction efforts. Encourage local governments to require mitigation of vehicle travel as part of new development approval, to adopt transit benefits ordinances in order to reduce transit costs to employees, and to develop innovative ways to encourage rideshare, transit, cycling, and walking for work trips. Fund various employer-based trip reduction programs.
- TR9: Bicycle and Pedestrian Access and Facilities – Encourage planning for bicycle and pedestrian facilities in local plans, e.g., general and specific plans, fund bike lanes, routes, paths and bicycle parking facilities.

- TR14: Cars and Light Trucks – Commit regional clean air funds toward qualifying vehicle purchases and infrastructure development. Partner with private, local, State and federal programs to promote the purchase and lease of battery-electric and plug-in hybrid electric vehicles
- TR23: Lawn and Garden Equipment – Seek additional funding to expand the Commercial Lawn and Garden Equipment Replacement Program into all nine Bay Area counties. Explore options to expand Lawn and Garden Equipment Program to cover shredders, stump grinders and commercial turf equipment.
- EN2 Decrease Electricity Demand – Work with local governments to adopt additional energy efficiency policies and programs. Support local government energy efficiency program via best practices, model ordinances, and technical support. Work with partners to develop messaging to decrease electricity demand during peak times.
- BL1 Green Buildings – Collaborate with partners such as KyotoUSA to identify energy-related improvements and opportunities for onsite renewable energy systems in school districts; investigate funding strategies to implement upgrades. Identify barriers to effective local implementation of the CALGreen (Title 24) statewide building energy code; develop solutions to improve implementation/enforcement. Work with ABAG’s BayREN program to make additional funding available for energy-related projects in the buildings sector. Engage with additional partners to target reducing emissions from specific types of buildings.
- BL2 Decarbonize Buildings – Explore potential Air District rulemaking options regarding the sale of fossil fuel-based space and water heating systems for both residential and commercial use. Explore incentives for property owners to replace their furnace, water heater or natural-gas powered appliances with zero-carbon alternatives. Update Air District guidance documents to recommend that commercial and multi-family developments install ground source heat pumps and solar hot water heaters.
- NW2: Urban Tree Planting – Develop or identify an existing model municipal tree planting ordinance and encourage local governments to adopt such an ordinance. Include tree planting recommendations, the Air District’s technical guidance, best practices for local plans and CEQA review.
- WA3: Green Waste Diversion – Develop model policies to facilitate local adoption of ordinances and programs to reduce the amount of green waste going to landfills.
- WA4: Recycle and Waste Reduction – Develop or identify and promote model ordinances on community-wide zero waste goals and recycling of construction and demolition materials in commercial and public construction projects.
- WR2: Support Water Conservation – Develop a list of best practices that reduce water consumption and increase onsite water recycling in new and existing buildings; incorporate into local planning guidance.
- SS32: Emergency Backup Generators – Reduce emissions of diesel particulate matter and black carbon from backup generators through Draft Rule 11-18, resulting in reduced health risks to impacted individuals, and in climate protection benefits.

The proposed project includes design features that support emissions reduction in the transportation sector. For instance, the proposed project would promote transit and pedestrian connectivity by facilitating walking or biking to the adjacent bus stops and the nearby Union City

BART Station. Such connectivity reduces the need for single occupancy vehicle trips. Other improvements, such as the installation of electric charging stations and bicycle parking, would support alternative modes of transportation within the project site (Measure TR2, TR9, and TR14). In addition, the proposed project would implement a number of sustainability features, such as Energy Star-rated appliances (Measures BL1, BL2 and EN2), low-flow shower heads and toilets (as required by CALGreen) (Measure WR2), and waste diversion programs (consistent with the City's waste management practices) (Measures WA3 and WA4) that reduce resource consumption and reduce criteria pollutant and GHG emissions. The proposed project would result in a net increase in trees (approximately 667 trees) (Measure NW2). In addition, planting of drought tolerate plants would reduce emissions associated with lawn and garden equipment (Measure TR23). These features would be confirmed during the project approval process (e.g., plan review, site development approval, etc.). The proposed emergency generators would be subject to the permit authority of the BAAQMD to reduce associated health risks and air quality impacts (Measure SS32). Project features described above would be confirmed during the project approval process (i.e., site development approval).

Based on the above analysis, the proposed project would support the applicable control measures identified in the *2017 Clean Air Plan* to meet the plan's primary goals.

#### **Disrupt or Hinder Implementation of 2017 Clean Air Plan Control Measures**

As discussed above, the proposed project would incorporate sustainability design features. The proposed project would not cause the disruption, delay, or otherwise hinder implementation of any applicable control measure from the *2017 Clean Air Plan*. Rather, the proposed project would support and facilitate their implementation. For example, the proposed project encourages sustainability measures such as use of promotion of sustainable building design and support alternative modes of transportation such as transit, walking, and bicycling. Similarly, the proposed project would not disrupt or hinder implementation of any applicable *2017 Clean Air Plan* control measure related to parking. Rather, the proposed project would eliminate on-street parking on several streets within the project site to allow for buffered bicycle lanes.

Based on the above analysis, the proposed project would support implementation of the *2017 Clean Air Plan*. Accordingly, the proposed project would not fundamentally conflict with the *2017 Clean Air Plan* and would have a **less-than-significant** air quality impact.

#### **Impact AQ-2a: The proposed project could result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or State ambient air quality standard during construction. (Less than Significant with Mitigation)**

Construction of the project is scheduled to commence in mid-2021 and end in late 2025, a period of approximately 4.5 years; the first occupancy would be in 2023. First, the existing structures and parking lots on the project site would be demolished and trees would be removed. Then, grading and street and utility construction would occur.

"Horizontal" construction would include all major streets on the entire project site as well as required off-site street improvements. "Vertical" construction would include construction of the buildings as well as private lanes and alleys for access to individual residential units. "Vertical" construction is anticipated to occur in two phases: Phase 1 and Phase 2. Phase 1 of "vertical" construction would include the 683 residential units in PAs 1, 2, 3, 5, 7, 9 and 11A as well as



the 30,800 sf of commercial space in PA 1 and PA 2. Phase 2 of “vertical” construction would include the 281 residential units in PAs 4, 6, 8 and 10. After the grading and demolition stage, both phases of construction would include the following stages: (1) “horizontal” construction, (2) home/retail construction for Phase 1 or home construction for Phase 2, (3) paving, and (4) architectural coatings. An additional activity involving the railway improvements would also occur separately from the two primary construction phases.

Construction activities would require mobile and stationary construction equipment and on-road vehicles such as haul trucks for demolition debris removal and vendor trucks for deliveries. Site grading and excavation would be required for the building foundations, utilities, and landscaping. The unmitigated criteria air pollutant emissions that would be generated during construction are presented in Table 4.1-5.

**Table 4.1-5. Estimated Unmitigated Criteria Pollutant Emissions from Construction of the Proposed Project (pounds/day)**

Construction Year	ROG	NO <sub>x</sub>	CO	PM <sub>10</sub>		PM <sub>2.5</sub>	
				Dust	Exhaust	Dust	Exhaust
2021	8	<u>103</u>	58	9	4	4	3
2022	51	<u>71</u>	73	8	3	2	2
2023	47	30	40	8	1	2	1
2024	<u>66</u>	30	41	9	1	2	1
2025	22	19	25	3	1	1	1
BAAQMD Threshold	54	54	None	BMPs	82	BMPs	54
Exceed Threshold?	Yes	Yes	N/A	-	No	-	No

Source: See **Appendix 4.1** for CalEEMod outputs.

Notes:

Exceedances of the BAAQMD thresholds are underlined.

ROG= reactive organic gases; NO<sub>x</sub> = nitrogen oxide; CO = carbon monoxide; PM<sub>10</sub> = particulate matter no more than 10 microns in diameter; PM<sub>2.5</sub> = particulate matter no more than 2.5 microns in diameter; BAAQMD = Bay Area Air Quality Management District; BMPs = best management practices.

As shown in Table 4.1-5, construction of the proposed project would not generate PM exhaust emissions in excess of BAAQMD’s numeric thresholds. However, the proposed project would generate ROG and NO<sub>x</sub> emissions in excess of BAAQMD’s significance threshold during various years of construction. These emissions, if left unmitigated, could contribute to a ground-level formation of ozone in the SFBAAB, which, at certain concentrations, could contribute to short- and long-term human health effects. Alameda County does not currently attain the ozone CAAQS and NAAQS, or particulate matter CAAQS (see Table 4.1-2). Certain individuals residing in areas that do not meet the ambient air quality standards, including Union City, could be exposed to pollutant concentrations that could cause or aggravate acute and/or chronic health conditions (e.g., asthma, premature mortality). Although construction of the proposed project would contribute to future ROG and NO<sub>x</sub> emissions, maximum daily construction-generated emissions represent approximately

and 0.01 percent of total ROG and NO<sub>x</sub> in the SFBAAB, respectively.<sup>48</sup> As previously discussed, the magnitude and location of any potential change in ambient air quality, and thus health consequences, from additional emissions cannot be quantified with a high level of certainty because of the dynamic and complex nature of pollutant formation and distribution. However, it is known that public health will continue to be affected in Union City so long as the region does not attain the CAAQS or NAAQS.

Implementation of Mitigation Measure AQ-2a, Require Low-VOC Coatings during Construction would reduce construction-related ROG to below BAAQMD’s threshold, as shown in Table 4.1-6. In addition, Mitigation Measure AQ-2b, Use Clean Diesel-Powered Equipment During Construction to Control Construction-Related NO<sub>x</sub> Emissions, and Mitigation Measure AQ-2c, Require Use of Diesel Trucks with 2010-Compliant Model Year Engines, would reduce construction-related NO<sub>x</sub> to below BAAQMD’s threshold. BAAQMD’s CEQA Guidelines consider fugitive dust impacts to be less than significant with application of best management practices (BMPs). If BMPs are not implemented, then the dust impacts would be *significant*. Therefore, Mitigation Measure AQ-2d, Implement BAAQMD Basic Construction Mitigation Measures, which includes BMPs to reduce fugitive dust, would be implemented to reduce impacts from construction-related fugitive dust emissions, including any cumulative impacts. As such, construction of the proposed project would not be expected to contribute a significant level of air pollution such that air quality within the SFBAAB would be degraded. Consequently, the impact from construction-generated criteria pollutant emissions would be *less than significant with mitigation*.

**Table 4.1-6. Estimated Mitigated Criteria Pollutant Emissions from Construction of the Proposed Project (pounds/day)**

Construction Year	ROG	NO <sub>x</sub>	CO	PM <sub>10</sub>		PM <sub>2.5</sub>	
				Dust	Exhaust	Dust	Exhaust
2021	2	18	59	7	< 1	2	< 1
2022	8	7	74	7	< 1	2	< 1
2023	7	4	46	7	< 1	2	< 1
2024	9	4	40	8	< 1	2	< 1
2025	3	3	26	3	< 1	1	< 1
BAAQMD Threshold	54	54	None	BMPs	82	BMPs	54
Exceed Threshold?	No	No	N/A	--	No	--	No

Source: See **Appendix 4.1** for CalEEMod outputs.

Notes:

Emissions assumes the implementation of Mitigation Measures AQ-2a through AQ-2c. However, implementation of dust BMPs have not been explicitly quantified, other than watering two times a day and limiting speed to 15 miles per hour per Mitigation Measure AQ-2d, but would be required.

ROG= reactive organic gases; NO<sub>x</sub> = nitrogen oxide; CO = carbon monoxide; PM<sub>10</sub> = particulate matter no more than 10 microns in diameter; PM<sub>2.5</sub> = particulate matter no more than 2.5 microns in diameter; BAAQMD = Bay Area Air Quality Management District; BMPs = best management practices.

<sup>48</sup> ROG and NO<sub>x</sub> emissions reported in the *2017 Clean Air Plan* totaled 259 and 300 tons per day, respectively. Maximum unmitigated project-generated ROG and NO<sub>x</sub> emissions would be 66 and 145 pounds per day, respectively, which equates to 0.033 and 0.0725 tons per day, respectively.

Bay Area Air Quality Management District. 2017a. *Final 2017 Clean Air Plan*. Adopted April 19. Available: [https://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a\\_-proposed-final-cap-vol-1-pdf.pdf?la=en](https://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en). Accessed: March 16, 2020.

**Mitigation Measure AQ-2a: Require Low-VOC Coatings During Construction**

The project applicant shall require their contractors, as a condition of contract, to reduce construction-related fugitive ROG emissions by ensuring that low-VOC coatings that have a VOC content of 10 grams/liter (g/L) or less are used during construction. Prior to permit issuance, the project applicant shall submit evidence to the City regarding the use of low-VOC coatings.

**Mitigation Measure AQ-2b: Use Clean Diesel-Powered Equipment During Construction to Control Construction-Related Emissions**

The project applicant shall ensure that all off-road diesel-powered equipment used during construction is equipped with EPA-approved Tier 4 Final engines. Prior to permit issuance, the project applicant, in coordination with the construction contractor, shall submit evidence to the City regarding the use of EPA-approved Tier 4 Final engines or cleaner for project construction.

**Mitigation Measure AQ-2c: Require Use of Diesel Trucks with 2010-Compliant Model Year Engines**

The project applicant shall ensure that contractors, as a condition of contract, use diesel trucks that have 2010 model year or newer engines, but no less than the average fleet mix for the current calendar year as set forth in the CARB's EMFAC2017 model database. In the event that 2010 model year or newer diesel trucks cannot be obtained, the project applicant, in coordination with the construction contractor, must provide documentation to the City showing that a good faith effort to locate such engines was conducted, such as outreach to at least two vendors. Prior to permit issuance, the project applicant shall submit evidence of compliance with this mitigation measure to the City from a third party evaluator.

**Mitigation Measure AQ-2d: Implement BAAQMD Basic Construction Mitigation Measures**

The project applicant shall require all construction contractors to implement the basic construction mitigation measures recommended by BAAQMD. The emissions reduction measures shall include, at a minimum, all of the following. Prior to permit issuance, the project applicant shall provide documentation that these basic construction measures are reflected in all construction contracts.

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, unpaved access roads) will be watered two times a day.
- All haul trucks will be covered when transporting soil, sand, or other loose material offsite.
- All visible mud or dirt track-out material on adjacent public roads will be removed using wet-power vacuum-type street sweepers at least once a day. The use of dry-power sweeping is prohibited.
- All vehicle speeds will be limited to 15 miles per hour on unpaved roads.
- All roadways, driveways, and sidewalks that are to be paved will be paved as soon as possible. Building pads will be laid as soon as possible after grading, unless seeding or a soil binder is used.
- All construction equipment will be maintained and properly tuned in accordance with manufacturers' specifications. All equipment will be checked by a certified visible-emissions evaluator.

- Idling times will be minimized, either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure).
- Publicly visible signs will be posted with the telephone number and name of the person to contact at the lead agency regarding dust complaints. This person will respond and take corrective action within 48 hours. BAAQMD’s phone number will also be visible to ensure compliance with applicable regulations.

**Impact AQ-2b: The proposed project could result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or State ambient air quality standard during concurrent construction and operation. (Less than Significant with Mitigation)**

Partial buildout of the proposed project is anticipated in 2023, with Phase 1 conservatively assumed to be fully operational. As such, concurrent construction and operational emissions are anticipated. Emissions from concurrent construction and operations are analyzed and compared against BAAQMD’s numeric thresholds to account for the short-term overlap of operational activities when emissions are increased from construction activities (as analyzed under Impact AQ-2a).

This analysis assumes the same construction activities described under Impact AQ-2a. Operation of partial buildout of the proposed project has the potential to result in air quality impacts from area, energy, mobile, and stationary sources, which were quantified using the CalEEMod model (for area, energy, and stationary sources) and EMFAC2017 for mobile sources, as described above in *Methods for Analysis*.

Table 4.1-7 summarizes the daily operational emissions generated with partial buildout of the project in 2023 and the daily construction emissions from ongoing construction activities. No active land uses were assumed to be on the project site under existing conditions; thus, there would be no emissions generated for the existing conditions at the project site. Total emissions presented in Table 4.1-7 conservatively represent the net change in emissions with the proposed project.

**Table 4.1-7. Estimated Unmitigated Criteria Pollutant Emissions from Concurrent Construction and Operation of the Proposed Project (pounds/day)**

Condition/Source	ROG	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
Construction <sup>a</sup>	<u>66</u>	30	41	10	3
Operation (Partial Buildout)	41	41	172	50	14
<i>Total</i> <sup>b</sup>	<u>108</u>	<u>71</u>	213	60	17
BAAQMD Threshold	54	54	-	82	54
Exceed Threshold?	Yes	Yes	-	No	No

Source: See **Appendix 4.1** for CalEEMod outputs and EMFAC2017 calculations.

Notes:

Exceedances of the BAAQMD thresholds are underlined.

ROG= reactive organic gases; NO<sub>x</sub> = nitrogen oxide; CO = carbon monoxide; PM<sub>10</sub> = particulate matter no more than 10 microns in diameter; PM<sub>2.5</sub> = particulate matter no more than 2.5 microns in diameter; BAAQMD = Bay Area Air Quality Management District.

<sup>a</sup> Construction emissions from 2024 are conservatively presented in this table to show the maximum emissions during concurrent construction and operation.

<sup>b</sup> Values may not total due to rounding.

As shown in Table 4.1-7, the proposed project would exceed BAAQMD’s numeric thresholds for ROG, NO<sub>x</sub>, in 2023 during concurrent construction and operation. ROG emissions are primarily associated with the use of consumer products, while NO<sub>x</sub> is the result of increased vehicle trips from the proposed project. This would be a **significant** impact.

Table 4.1-8 presents the mitigated scenario associated with concurrent operation and construction. As shown in Table 4.1-8, implementation of Mitigation Measure AQ-2a, Require Low-VOC Coatings during Construction along with additional mitigation measures below Mitigation Measure AQ-2e, Require Low-VOC Coating During Operation, and Mitigation Measure AQ-2f, Require Use of Green Consumer Products During Operation, would reduce construction-related ROG to below BAAQMD’s threshold.

For NO<sub>x</sub>, Mitigation Measures AQ-2b and AQ-2c would reduce construction emissions to below BAAQMD’s threshold, as shown in Table 4.1-8. Implementation of Mitigation Measure AQ-2d would reduce PM emissions associated with dust during construction. Therefore, mitigated emissions during concurrent construction and operation would not exceed BAAQMD’s thresholds and therefore, the proposed project would not contribute a significant level of air pollution during concurrent construction and operation such that regional air quality within the SFBAAB would be degraded. Accordingly, criteria pollutant emissions during concurrent construction and operation of the proposed project would be **less than significant with mitigation**.

**Table 4.1-8. Estimated Mitigated Criteria Pollutant Emissions from Concurrent Construction and Operation of the Proposed Project (pounds/day)**

Condition/Source	ROG	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
Construction <sup>a</sup>	7	4	46	7	2
Operation (Partial Buildout)	35	41	172	50	14
<i>Total<sup>a</sup></i>	42	45	217	57	16
BAAQMD Threshold	54	54	-	82	54
Exceed Threshold?	No	No	-	No	No

Source: See **Appendix 4.1** for CalEEMod outputs and EMFAC2017 calculations.

Notes:

Exceedances of the BAAQMD thresholds are underlined.

Emissions assumes the implementation of Mitigation Measure AQ-2a through AQ-2f. However, implementation of dust BMPs have not been explicitly quantified, other than watering two times a day and limiting speed to 15 miles per hour per Mitigation Measure AQ-2d, but would be required.

ROG= reactive organic gases; NO<sub>x</sub> = nitrogen oxide; CO = carbon monoxide; PM<sub>10</sub> = particulate matter no more than 10 microns in diameter; PM<sub>2.5</sub> = particulate matter no more than 2.5 microns in diameter; BAAQMD = Bay Area Air Quality Management District.

<sup>a</sup> Construction emissions from 2024 are conservatively presented in this table to show the maximum emissions during concurrent construction and operation.

<sup>b</sup> Values may not total due to rounding.

**Mitigation Measure AQ-2e: Require Low-VOC Coatings during Operation**

The project applicant shall require their contractors, as a condition of contract, to reduce operation-related fugitive ROG emissions by ensuring that low-VOC coatings that have a VOC content of 10 grams/liter (g/L) or less are used during operation. Prior to the completion of construction, the project applicant shall submit evidence to the City documenting the use of low-VOC coatings.

**Mitigation Measure AQ-2f: Require Use of Green Consumer Products during Operation**

The project applicant shall provide education for residential and commercial tenants concerning green consumer products. Prior to receipt of any certificate of final occupancy, the project applicant shall work with the City of Union City to develop electronic correspondence to be distributed by email to new residential and commercial tenants that require the purchase of consumer products that generate lower than typical VOC emissions. Examples of green products may include low-VOC cleaning supplies and consumer products.

**Impact AQ-2c: The proposed project could result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or State ambient air quality standard during operation. (Less than Significant with Mitigation)**

As described under Impact AQ-2b, concurrent construction and operation of the proposed project at full buildout has the potential to result in air quality impacts from area, energy, mobile, and stationary sources. Long-term operational emissions were quantified using the same methods to estimate operational emissions at full buildout.

Table 4.1-9 summarizes the daily operational emissions generated with project at full buildout. No active land uses were assumed to be on the project site under existing conditions; thus, there would be no emissions generated for the existing conditions at the project site. Total emissions presented in Table 4.1-9 under each condition conservatively represent the net change in emissions with the proposed project.

**Table 4.1-9. Estimated Unmitigated Criteria Pollutant Emissions from Operation of the Proposed Project (pounds/day)**

Condition/Source	ROG	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
Project					
Area Sources	50	13	85	1	1
Energy Sources	< 1	2	1	< 1	< 1
Mobile Sources	7	44	139	69	19
Stationary Sources	< 1	1	1	0	0
<i>Project Total<sup>a</sup></i>	<u>58</u>	<u>61</u>	226	71	21
BAAQMD Threshold	54	54	-	82	54
Exceed Threshold?	Yes	Yes	-	No	No

Source: See **Appendix 4.1** for CalEEMod outputs.

Notes:

Exceedances of the BAAQMD thresholds are underlined.

ROG= reactive organic gases; NO<sub>x</sub> = nitrogen oxide; CO = carbon monoxide; PM<sub>10</sub> = particulate matter no more than 10 microns in diameter; PM<sub>2.5</sub> = particulate matter no more than 2.5 microns in diameter; BAAQMD = Bay Area Air Quality Management District.

<sup>a</sup> Values may not total up due to rounding.

As shown in Table 4.1-9, the proposed project would result in exceedances of BAAQMD's numeric thresholds for ROG and NO<sub>x</sub>. ROG emissions are primarily associated with the use of consumer products, while NO<sub>x</sub> emissions are the result of increased vehicle trips from the proposed project. This would be a **significant** impact.

As shown in Table 4.1-10, implementation of Mitigation Measures AQ-2e, Require Low-VOC Coating During Operation and Mitigation Measure AQ-2f, Require Use of Green Consumer Products During Operation, would reduce ROG emissions to below BAAQMD's numeric threshold. However, NO<sub>x</sub> emissions would still exceed BAAQMD's numeric threshold. As such, Mitigation Measure AQ-2g, Purchase of Mitigation Credits for Emissions Exceeding BAAQMD's Daily Pollutant Thresholds, is required to offset operational NO<sub>x</sub> emissions resulting from the proposed project through the purchase of mitigation credits. Through implementation of Mitigation Measure AQ-2g, a third-party or governmental entity (e.g., BAAQMD) would determine the mitigation fees for the project applicant to pay on a pro rata basis to offset pollutant emissions (e.g., NO<sub>x</sub>), as necessary, such that BAAQMD's daily pollutant thresholds would not be exceeded.<sup>49</sup> Offsetting emissions below BAAQMD's threshold levels would ensure the proposed project would not contribute a significant level of air pollution, such that regional air quality within the SFBAAB would be degraded. Accordingly, operational criteria pollutant emissions associated with the proposed project would be *less than significant with mitigation*.

**Table 4.1-10. Estimated Mitigated Criteria Pollutant Emissions from Operation of the Proposed Project (pounds/day)**

Condition/Source	ROG	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
Project					
Area Sources	41	13	85	< 1	1
Energy Sources	< 1	2	1	< 1	< 1
Mobile Sources	7	44	139	69	19
Stationary Sources	< 1	1	1	< 1	< 1
<i>Project Total<sup>a</sup></i>	48	<u>61</u>	226	71	21
BAAQMD Threshold	54	54	-	82	54
Exceed Threshold?	No	Yes	-	No	No

Source: See **Appendix 4.1** for CalEEMod outputs and EMFAC2017 calculations.

Notes:

Exceedances of the BAAQMD thresholds are underlined.

Emissions assumes the implementation of Mitigation Measure AQ-2e and AQ-2f.

ROG= reactive organic gases; NO<sub>x</sub> = nitrogen oxide; CO = carbon monoxide; PM<sub>10</sub> = particulate matter no more than 10 microns in diameter; PM<sub>2.5</sub> = particulate matter no more than 2.5 microns in diameter;

BAAQMD = Bay Area Air Quality Management District.

<sup>a</sup> Values may not total due to rounding.

### **Mitigation Measure AQ-2g: Purchase of Mitigation Credits for Emissions Exceeding BAAQMD's Daily Pollutant Thresholds**

The project applicant shall provide annual operational emissions estimates to the City for review prior to receipt of any certificate of final occupancy of new buildings. Average annual emissions shall be forecasted for each operational year over the life of the project (30 years).

Emissions shall be calculated using an air district accepted emissions model and project-specific

<sup>49</sup> Based on the emissions presented in Table 4.1-10, approximately 7 pounds per day or 1.2 tons per year of NO<sub>x</sub> would need to be offset during operations at full buildout. See Mitigation Measure AQ-2g.

land use and design features. Should the proposed development not result in operational emissions exceeding BAAQMD's daily pollutant thresholds, the project would result in less-than-significant air quality impacts during operation and no further action would be required.

If it is shown that the project would result in exceedances of thresholds during any year of the project's life, the project applicant shall pay a mitigation offset fee pursuant to BAAQMD's emission reduction credit or interchangeable emission credit program, in an amount to be determined prior to the first year of exceedance over the life of the project (30 years). All fees for such credits shall be paid by the project applicant prior to the receipt of any certificate of final occupancy. If, at the time of the certificate of occupancy for the final building is issued, the project applicant demonstrates there are no exceedances, no further action shall be required.

### **Impact AQ-3: The project could expose sensitive receptors to substantial pollutant concentrations. (Less than Significant with Mitigation)**

The primary pollutants of concern to human health generated by the proposed project are criteria pollutants and TACs.

#### ***Regional Criteria Pollutants***

The California Supreme Court's decision in *Sierra Club v. County of Fresno* (6 Cal. 5th 502) (Friant Ranch Decision) reviewed the long-term, regional air quality analysis contained in the EIR for the proposed *Community Plan Update* and *Friant Ranch Specific Plan* (Friant Ranch Project). The Friant Ranch Project is a 942-acre master-plan development in unincorporated Fresno County within the San Joaquin Valley Air Basin, an air basin currently in nonattainment under the NAAQS and CAAQS for ozone and PM<sub>2.5</sub>. The California Supreme Court found that the Friant Ranch Project EIR's air quality analysis was inadequate because it failed to provide enough detail "for the public to translate the bare [criteria pollutant emissions] numbers provided into adverse health impacts or to understand why such a translation is not possible at this time." The Court's decision clarifies that environmental documents must attempt to connect a project's regional air quality impacts to specific health effects or explain why it is not technically feasible to perform such an analysis.

Models and tools have been developed to correlate regional criteria pollutant emissions to potential community health impacts. **Appendix 4.1** summarizes many of these tools, identifies the analyzed pollutants, describes their intended application and resolution, and analyzes whether they could be used to reasonably correlate project-level emissions to specific health consequences. As described in **Appendix 4.1**, while there are models capable of quantifying ozone and secondary PM formation and associated health effects, these tools were developed to support regional planning and policy analysis and have limited sensitivity to small changes in criteria pollutant concentrations induced by individual projects. Therefore, translating project-generated criteria pollutants to the locations where specific health effects could occur or the resultant number of additional days of nonattainment cannot be achieved with any degree of accuracy for relatively small projects (relative to the regional air basin).

Technical limitations of existing models to correlate project-level regional emissions to specific health consequences are recognized by air quality management districts throughout the State, including the SJVAPCD and South Coast Air Quality Management District (SCAQMD), who provided amici curiae briefs for the Friant Ranch legal proceedings. In its brief, SJVAPCD acknowledges that while health risk assessments for localized air toxics, such as DPM, are commonly prepared, "it is not feasible to conduct a similar analysis for criteria air pollutants because currently available computer



modeling tools are not equipped for this task.” SJVAPCD further notes that emissions solely from the Friant Ranch Project (which equate to less than one-tenth of 1 percent of the total NO<sub>x</sub> and VOC in the San Joaquin Valley) is not likely to yield valid information,” and that any such information should not be “accurate when applied at the local level.”<sup>50</sup> SCAQMD presents similar information in their brief, stating that “it takes a large amount of additional precursor emissions to cause a modeled increase in ambient ozone levels.”<sup>51</sup>

As discussed above, BAAQMD’s regional thresholds presented in Table 4.1-4 consider existing air quality concentrations and attainment or nonattainment designations under the NAAQS and CAAQS. The NAAQS and CAAQS are informed by a wide range of scientific evidence that demonstrates there are known safe concentrations of criteria pollutants. While recognizing that air quality is a cumulative problem, BAAQMD considers projects that generate criteria pollutant and ozone precursor emissions below these thresholds to be minor in nature, such that they would not adversely affect air quality to the extent that the health-protective NAAQS or CAAQS would be exceeded. Regional emissions generated by a project could increase photochemical reactions and the formation of tropospheric ozone and secondary PM, which at certain concentrations, could lead to increased incidence of specific health consequences. Although these health effects are associated with ozone and particulate pollution, the effects are a result of cumulative and regional emissions.

As discussed above under Impacts AQ-2a and AQ-2b, mitigation is being applied to reduce construction emissions of ozone precursors and PM to the extent possible, and as specified below.

- Mitigation Measure AQ-2a, Require Low-VOC Coatings During Construction
- Mitigation Measure AQ-2b, Use Clean Diesel-Powered Equipment During Construction to Control Construction-Related Emissions
- Mitigation Measure AQ-2c, Require Use of Diesel Trucks with 2010-Compliant Model Year Engines
- Mitigation Measure AQ-2d, Implement BAAQMD Basic Construction Mitigation

With implementation of mitigation, the proposed project’s construction emissions would not exceed air district thresholds.

The project’s operational emissions would exceed the BAAQMD’s ROG and NO<sub>x</sub> thresholds. This would be a **significant** impact. Implementation Mitigation Measures AQ-2a through AQ-2g would ensure that the proposed project would not contribute a significant level of air pollution such that regional air quality within the SFBAAB would be degraded. Accordingly, health impacts related to regional criteria pollutants would be **less than significant with mitigation**.

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<sup>50</sup> San Joaquin Valley Unified Air Pollution Control District. 2015. Final Staff Report. Update to District’s Risk Management Policy to Address OEHHA’s Revised Risk Assessment Guidance Document. May 28.

<sup>51</sup> For example, SCAQMD’s analysis of their 2012 *Air Quality Attainment Plan* showed that modeled NO<sub>x</sub> and ROG reductions of 432 and 187 tons per day, respectively, only reduced ozone levels by 9 parts per billion. Analysis of SCAQMD’s Rule 1315 showed that emissions of NO<sub>x</sub> and ROG of 6,620 and 89,180 pounds per day, respectively, contributed to 20 premature deaths per year and 89,947 school absences. South Coast Air Quality Management District. 2015. Application of the South Coast Air Quality Management District for leave to file amicus curiae in support of neither party and (proposed) brief of amicus curie. Filed April 13,

### ***Localized Criteria Pollutants***

Localized criteria pollutants generated by the proposed project (e.g., fugitive dust, CO) can be deposited near the emissions source and have the potential to affect the population near that emissions source. Although these pollutants dissipate with distance, emissions from individual projects can result in direct and material health impacts on adjacent sensitive receptors. As discussed above, the NAAQS and CAAQS are health protective standards that have been set at levels considered safe to protect public health, including the health of sensitive populations, such as asthmatics, children, and the elderly.

During grading and excavation activities associated with construction, localized fugitive dust would be generated. The amount of dust generated by a project is highly variable and dependent on the size of the disturbed area at any given time, the amount of activity, soil conditions, and meteorological conditions. BAAQMD considers dust impacts to be less than significant if BAAQMD's construction BMPs are employed to reduce such emissions. Because BAAQMD's Basic Construction Mitigation Measures would be implemented, per Mitigation Measure AQ-2d, Implement BAAQMD Basic Construction Mitigation, construction-related fugitive dust emissions would be less than significant and would not expose receptors to substantial pollutant concentrations or risks.

The proposed project would install and operate a new diesel generator on the project site, which would increase PM<sub>2.5</sub> concentrations. As the project site would locate new sensitive receptors to the project site as early as 2023, the proposed project may expose receptors to substantial pollutant concentrations or risks. PM<sub>2.5</sub> concentrations anticipated from the generator are discussed further below in conjunction with TACs.

Continuous engine exhaust may elevate localized CO concentrations, resulting in hot spots. Receptors exposed to these CO hot spots may have a greater likelihood of developing adverse health effects. CO hot spots are typically observed at heavily congested intersections where a substantial number of gasoline-powered vehicles idle for prolonged durations throughout the day. As discussed above, BAAQMD have developed screening criteria to assist lead agencies in evaluating potential impacts from localized CO. The proposed project would not increase traffic volumes at any intersection to more than 44,000 vehicles per hour or 24,000 vehicles per hour in areas where vertical or horizontal mixing is limited, as specified by BAAQMD. However, the intersections at Mission Boulevard/Nursery Avenue and Mission Boulevard/Niles Canyon Road currently do not meet the applicable congestion management plan standard.<sup>52</sup> As such, the proposed project would not meet the BAAQMD's CO hot spot screening criteria. Therefore, the BAAQMD's screening criteria cannot be used, and a site-specific analysis has been conducted to determine if the proposed project could potentially contribute to a localized CO hot spot and expose receptors to substantial CO concentrations or risks. CO impacts were analyzed at the intersections of Mission Boulevard/Nursery Avenue and Mission Boulevard/Niles Canyon Road using the traffic conditions from existing (i.e., 2018) and existing with project conditions. Table 4.1-11 presents project CO concentrations summed with the background CO levels and compared against the CAAQS and NAAQS.

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<sup>52</sup> Martin, Francisco (Fehr & Peers). Personal communication. Email to Sandy Lin (ICF). RE: Integral - status and schedule check-in. Received May 7, 2019.

**Table 4.1-11. CO Concentrations at Mission Boulevard/Nursery Avenue and Mission Boulevard/Niles Canyon Road Intersections (parts per million)**

Source	Receptor <sup>a</sup>	1-Hour <sup>b</sup>		8-hour <sup>c</sup>	
		Existing	Project	Existing	Project
Mission Boulevard/ Nursery Avenue	1	3.3	3.3	2.3	2.3
	2	3.3	3.3	2.3	2.3
	3	3.3	3.3	2.3	2.3
	4	3.3	3.3	2.3	2.3
Mission Boulevard/ Niles Canyon Road	5	3.3	3.3	2.3	2.3
	6	3.3	3.3	2.3	2.3
	7	3.3	3.3	2.3	2.3
	8	3.3	3.3	2.3	2.3
CAAQS		20	20	9.0	9.0
Exceed CAAQS?		No	No	No	No
NAAQS		35	35	9	9
Exceed NAAQS?		No	No	No	No

Source: See **Appendix 4.1** for CO modeling outputs.

Notes:

CAAQS = California Ambient Air Quality Standards; NAAQS = National Ambient Air Quality Standards

<sup>a</sup> Receptors are located at each of the four corners of the intersection. All intersections modeled have two intersecting roadways.

<sup>b</sup> The average 1-hour background concentration between 2017 and 2019 was 3.3 parts per million

<sup>c</sup> The average 8-hour background concentration between 2017 and 2019 was 2.3 parts per million.

As shown in Table 4.1-11, CO concentrations are not expected to contribute to any new localized violations of the 1-hour or 8-hour ambient State or federal air quality standards. Accordingly, sensitive receptors would not be exposed to substantial concentrations of CO. Therefore, this impact would be ***less than significant***.

### ***Toxic Air Contaminants***

The primary TACs of concern associated with the proposed project are asbestos and DPM.

Demolition of existing structures on the project site may result in the dispersion of asbestos containing materials (ACM) to adjacent sensitive receptor locations, should they be present. All demolition activities would be subject to EPA's asbestos NESHAP if asbestos is present at any of the existing structures onsite. The asbestos NESHAP regulations protect the public by minimizing the release of asbestos fibers during activities involving the processing, handling, and disposal of ACM. The asbestos NESHAP regulations for demolition and renovation are outlined in BAAQMD Regulation 11, Rule 2. In addition to demolition and renovation measures, BAAQMD Regulation Rule 2 also includes measures to address ACM during haul truck transport. More specifically, it includes provisions such as treating ACM with water prior to transport and placing such materials in leak-tight containers for haul truck transport to disposal sites. Consequently, regulatory mechanisms exist that would ensure that impacts from ACM, if present during demolition activities within the project site, would be ***less than significant***.

DPM is a carcinogen emitted by diesel internal combustion engines. Construction activities would generate DPM (PM<sub>2.5</sub> exhaust)<sup>53</sup> that could expose adjacent receptors and onsite receptors (beginning in 2023) to significant health risks. This would be a **significant** impact. DPM concentrations would be dramatically reduced, even at distances of 500 feet. However, as explained in BAAQMD's CEQA Guidelines:

"Due to the variable nature of construction activity, the generation of TAC emissions in most cases would be temporary, especially considering the short amount of time such equipment is typically within an influential distance that would result in the exposure of sensitive receptors to substantial concentrations. Concentrations of mobile-source diesel PM emissions are typically reduced by 70 percent at a distance of approximately 500 feet...In addition, current models and methodologies for conducting health risk assessments are associated with longer-term exposure periods of 9, 40, and 70 years, which do not correlate well with the temporary and highly variable nature of construction activities. This results in difficulties with producing accurate estimates of health risk."<sup>54</sup>

Table 4.1-12 presents the maximum mitigated construction-related health risks for the maximum exposed offsite receptor within 1,000 feet of construction activities and the onsite receptors who would occupy portions of the project site during construction. As shown in Table 4.1-12, cancer risk, chronic hazard risk, and annual PM<sub>2.5</sub> concentration would not exceed BAAQMD's thresholds with implementation of Mitigation Measure AQ-2b, Use Clean Diesel-Powered Equipment during Construction to Control Construction-Related Emissions, Mitigation AQ-2c, Require Use of Diesel Trucks with 2010-Compliant Model Year, and Mitigation Measure AQ-2d, Implement BAAQMD Basic Construction Mitigation Measures. Therefore, this impact would be **less than significant with mitigation**. In addition, the proposed project would include the installation and operation of a diesel-fueled generator, a new stationary source of TACs. All new stationary sources would be subject to the permit authority of the BAAQMD. The BAAQMD will not issue a permit for a new permitted source that results in an operational cancer risk in excess of 10.0 cases per million or a hazard index in excess of 1.0. However, because BAAQMD's permit does not specifically address PM<sub>2.5</sub>, concentrations from testing of the emergency generator was modeled and results are presented in Table 4.1-13. Cancer and non-cancer health risks are presented for informational purposes, but regulatory mechanisms exist that would ensure that health risk impacts from the stationary source would be less than significant. The maximum exposed receptor affected by the highest concentrations of PM<sub>2.5</sub> exhaust is located within the center of the project site. As shown in Table 4.1-13, operation of the proposed project would not result in a significant increase in PM<sub>2.5</sub> exhaust concentrations. Impacts from the annual PM<sub>2.5</sub> concentration during operation would be **less than significant**.

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<sup>53</sup> Per BAAQMD guidance, PM<sub>2.5</sub> exhaust is used as a surrogate for DPM.

<sup>54</sup> Bay Area Air Quality Management District. 2017b. *California Environmental Quality Act, Air Quality Guidelines*. May Available: [http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa\\_guidelines\\_may2017-pdf.pdf?la=en](http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en). Accessed: January 6, 2020.

**Table 4.1-12. Mitigated Project-level Cancer and Chronic Hazard Risks and PM<sub>2.5</sub> Concentrations During Construction**

Receptor	Cancer Risk (cases per million)	Non-Cancer Hazard Index	Annual PM <sub>2.5</sub> Concentration (µg/m <sup>3</sup> )
Maximum Exposed Offsite Receptor <sup>a</sup>	8.94	< 0.01	0.22
Maximum Exposed Onsite Receptor <sup>b</sup>	3.57	< 0.01	0.21
<i>Significance Threshold</i>	<i>10</i>	<i>1</i>	<i>0.3</i>
<i>Exceed Threshold?</i>	<i>No</i>	<i>No</i>	<i>No</i>

Source: See **Appendix 4.1** for modeling outputs and calculations.

Notes:

Emissions assumes the implementation of Mitigation Measure AQ-2b and AQ-2c. However, implementation of dust best management practices, other than watering two times a day and limiting speed to 15 miles per hour, have not been explicitly quantified per Mitigation Measure AQ-2d, but would be required.

µg/m<sup>3</sup> = micrograms per cubic meter; PM<sub>2.5</sub> = particulate matter no more than 2.5 microns in diameter

<sup>a</sup> The maximum exposed offsite receptor is not the same for cancer risk, non-cancer hazard index, and annual PM<sub>2.5</sub> concentration. The highest offsite cancer risk and non-cancer hazard index can be found at a residential receptor located adjacent to 7<sup>th</sup> Street and Bradford Way, while the highest offsite annual PM<sub>2.5</sub> concentration can be found at Shorty Garcia Park, adjacent to 7<sup>th</sup> Street. The highest offsite cancer risk, non-cancer hazard index, and annual PM<sub>2.5</sub> concentration among the receptors are shown in this table.

<sup>b</sup> This receptor is located at the center project site.

**Table 4.1-13. Project-level Cancer and Chronic Hazard Risks and PM<sub>5</sub> Concentrations During Operation**

Receptor	Cancer Risk (cases per million)	Non-Cancer Hazard Index	Annual PM <sub>2.5</sub> Concentration (µg/m <sup>3</sup> )
Maximum Exposed Receptor <sup>a</sup>	0.04	< 0.01	< 0.01
<i>Significance Threshold</i>	<i>10</i>	<i>1</i>	<i>0.3</i>
<i>Exceed Threshold?</i>	<i>No</i>	<i>No</i>	<i>No</i>

Notes: µg/m<sup>3</sup> = micrograms per cubic meter; PM<sub>2.5</sub> = particulate matter no more than 2.5 microns in diameter

<sup>a</sup> This receptor is located within the center of project site.

Table 4.1-14 presents the total cancer and chronic health risk and PM<sub>2.5</sub> concentrations associated with the proposed project. As shown in Table 4.1-14, the proposed project would not exceed BAAQMD's cancer and chronic health risk and PM<sub>2.5</sub> concentration thresholds with mitigation. Implementation of Mitigation Measures AQ-2b, Use Clean Diesel-Powered Equipment during Construction to Control Construction-Related Emissions and AQ-2c, Require Use of Diesel Trucks with 2010-Compliant Model Year Engines, would reduce DPM/PM<sub>2.5</sub> exhaust emissions. Implementation of Mitigation Measure AQ-2d, Implement BAAQMD Basic Construction Mitigation Measures, would reduce PM<sub>2.5</sub> fugitive dust emissions. Therefore, this impact would be ***less than significant with mitigation***.

**Table 4.1-14. Total Project-level Cancer and Chronic Hazard Risks and PM<sub>2.5</sub> Concentrations (Construction and Operation)**

<b>Receptor</b>	<b>Cancer Risk (cases per million)</b>	<b>Non-Cancer Hazard Index</b>	<b>Annual PM<sub>2.5</sub> Concentration (µg/m<sup>3</sup>)</b>
Maximum Exposed Receptor <sup>a</sup>	8.98	0.01	0.21
<i>Significance Threshold</i>	<i>10</i>	<i>1</i>	<i>0.3</i>
<i>Exceed Threshold?</i>	<i>No</i>	<i>No</i>	<i>No</i>

Notes: µg/m<sup>3</sup> = micrograms per cubic meter; PM<sub>2.5</sub> = particulate matter no more than 2.5 microns in diameter

<sup>a</sup> The maximum exposed receptor is not the same for cancer risk, non-cancer hazard index, and annual PM<sub>2.5</sub> concentration. The highest cancer risk, non-cancer hazard index, and annual PM<sub>2.5</sub> concentration from Table 4.1-12 (mitigated) were added to the risks and concentration in Table 4.1-13 and presented in this table.

**Impact AQ-4: The proposed project would not result in the other emissions (such as those leading to odors) adversely affecting a substantial number of people. (Less than Significant)**

BAAQMD and CARB have identified the following types of land uses as being commonly associated with odors. Although this list is not exhaustive, it is intended to help lead agencies recognize the types of facilities where more analysis may be warranted.

- Sewage treatment plants
- Coffee roasters
- Asphalt plants
- Metal smelters
- Landfills
- Recycling facilities
- Waste transfer stations
- Petroleum refineries
- Biomass operations
- Auto body shops
- Coating operations
- Fiberglass manufacturers
- Foundries
- Rendering plants
- Livestock operations

There are sensitive receptors within 1,000 feet of the project site (see Figure 4.1-1) and the project would include new receptors. As discussed above, the California Supreme Court has opined that impacts of the environment on projects are not subject to CEQA analysis, with limited exceptions. This general rule includes the impacts of existing odor-generating uses on future land uses. None of the above land uses are located within 1 mile of the project site. The proposed project also does not propose any changes that would affect odor-generating facilities. Therefore, odor complaints regarding existing odor-generating facilities are not anticipated upon implementation of the proposed project.

The potential odor-generating land uses identified above are generally not allowed under the City's existing Station East Mixed-Use General Plan designation and would continue to be the case with approval of the proposed project. The proposed project would not expressly encourage these uses. Additionally, as the proposed project must comply with the local zoning ordinance, odor-generating uses would only be developed in areas zoned for such uses.

Potential odor emitters during construction activities include diesel exhaust, asphalt paving, and the use of architectural coatings and solvents. Construction-related operations would be temporary, and construction activities would not be likely to result in nuisance odors that would violate BAAQMD Regulation 7. Odors during operation could emanate from vehicle exhaust and the reapplication of architectural coatings. These odors would be limited to areas adjacent to the building. Although such brief exhaust- and paint-related odors may be considered adverse, they would not affect a substantial number of people. Given mandatory compliance with BAAQMD, no construction or operational activities proposed would create a significant level of objectionable odors. Therefore, odor impacts would be *less than significant*.

## Cumulative Impacts

The cumulative geographic context for air quality is the SFBAAB. The cumulative geographic context for health risks is the immediate vicinity of the project site (i.e., 1,000 feet). The cumulative geographic context for odors is the City. The approach to cumulative impacts is described in Section 4, *Environmental Impact Analysis*.

### **Impact C-AQ-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects, could result in a significant cumulative impact on air quality. (Less than Significant with Mitigation)**

As discussed under Impact AQ-1, the proposed project would support the goals of BAAQMD's Clean Air Plan, would include all applicable control measures, and would not conflict with Clean Air Plan implementation. The purpose of the Clean Air Plan is to improve regional air quality in the air basin; therefore, the analysis and less-than-significant finding under Impact AQ-1 is inherently cumulative. Therefore, this impact would not be cumulatively considerable. For these reasons, the proposed project in combination with past, present, and reasonably foreseeable future projects would not result in a significant cumulative impact related to air quality plan consistency. The cumulative impact would be *less than significant*.

As discussed above, BAAQMD has identified project-level thresholds to evaluate criteria pollutant impacts (Table 4.1-4). In developing these thresholds, BAAQMD considers levels at which project emissions are cumulatively considerable. As noted in BAAQMD's guidelines:

*"In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. Therefore, additional analysis to assess cumulative impacts is unnecessary."*

Consequently, exceedances of project-level thresholds would be cumulatively considerable, and the cumulative impact would be significant. As discussed under Impact AQ-2a through AQ-2c, implementation of Mitigation Measures AQ-2a through AQ-2g would ensure the proposed project

would not contribute a significant level of air pollution such that regional air quality within the SFBAAB would be degraded. Accordingly, the proposed project's contribution to a cumulative criteria pollutant emissions impact would be ***less than significant with mitigation***.

As concluded in the City's General Plan EIR, buildout of the General Plan would result in significant health risk impacts prior to mitigation, which specified for the completion of an HRA and implementation of applicable measures determined through the HRA analysis.<sup>55</sup> An HRA was completed for the proposed project (see Impact AQ-3 and **Appendix 4.1**). According to BAAQMD's guidelines, combined risk and concentration levels should be determined from all nearby DPM and PM<sub>2.5</sub> sources within 1,000 feet of a project site, respectively, and these combined risk and concentration levels should be compared to BAAQMD's cumulative thresholds.

The proposed project would involve construction activities, locate new sensitive receptors (as early as 2023, during construction), and locate a new diesel-fueled generator on the project site, and this would generate DPM and PM<sub>2.5</sub>. There are existing nearby DPM and PM<sub>2.5</sub> sources within 1,000 feet of the project site which, along with the proposed project, could contribute to a cumulative health risk for existing and future sensitive receptors adjacent to and within the project site (see Figure 4.1-1). This is a potentially significant impact. BAAQMD data files and distance multipliers provided by the BAAQMD were used to estimate the background impacts and concentrations for existing stationary, roadway, and rail sources. The combined risks from construction and operation of the proposed project and ambient sources are summarized in Table 4.1-15. The methods used to estimate project emissions are described above in *Methods for Analysis* and supplemented with more detail in **Appendix 4.1**.

As shown in Table 4.1-15, cumulative risks and concentration levels would not exceed BAAQMD's cumulative thresholds. Implementation of Mitigation Measures AQ-2b and AQ-2c, and AQ-2d would reduce risks and concentration levels associated with construction and operation (e.g., diesel particulate matter, PM<sub>2.5</sub> exhaust, PM<sub>2.5</sub> fugitive dust) of the proposed project. With this mitigation, the project would not exceed BAAQMD's cumulative thresholds. Accordingly, the proposed project would not contribute to cumulative exposure to health risks associated with TACs. This impact would be ***less than significant with mitigation***. However, in terms of health risks associated with criteria air pollutants, the project's operational emissions would exceed the BAAQMD's ROG and NO<sub>x</sub> thresholds. BAAQMD considers projects that generate criteria pollutant and ozone precursor emissions above these thresholds to have the potential to adversely affect air quality and associated health. As discussed under Impact AQ-3, implementation of Mitigation Measure AQ-2e through AQ-2g would ensure that the proposed project would not contribute to cumulative exposure health risks of sensitive receptors from criteria air pollutants (e.g., ROG and NO<sub>x</sub>) during operation and this impact would be ***less than significant with mitigation***.

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<sup>55</sup> City of Union City. 2019. *Union City 2040 General Plan Update Final Environmental Impact Report*. November 2019. Chapter 5: Mitigation Monitoring and Reporting Program. Available: [http://www.uc2040.com/wp-content/uploads/2019/11/01\\_feir\\_cover-toc-executive-summary.pdf](http://www.uc2040.com/wp-content/uploads/2019/11/01_feir_cover-toc-executive-summary.pdf). Accessed: August 14, 2020.



**Table 4.1-15. Maximum Mitigated Cumulative Health Risks from the Proposed Project**

Source	Cancer Risk (case per million)	Non-Cancer Hazard Index	Annual PM <sub>2.5</sub> Concentration (µg/m <sup>3</sup> )
<b>Contribution from Existing Sources<sup>a</sup></b>			
Stationary Sources	7.8	< 0.01	0.01
Roadway Sources	4.0	-	0.08
Rail Sources	11.8	-	0.02
<b>Contribution from Project Construction<sup>b</sup></b>			
Maximum Exposed Receptor <sup>c</sup>	9.5	0.01	0.22
<b>Contribution from Project Operation</b>			
Maximum Exposed Receptor <sup>d</sup>	< 0.1	< 0.01	< 0.01
<b>Cumulative Totals</b>			
Existing + Construction	32.5	0.01	0.33
Existing + Operation	23.6	0.00	0.11
Existing + Construction + Operation	<b>32.5</b>	<b>0.01</b>	<b>0.33</b>
<i>BAAQMD Thresholds</i>	<i>100</i>	<i>10</i>	<i>0.8</i>

Source: See **Appendix 4.1** for modeling outputs and calculations.

Notes:

µg/m<sup>3</sup> = micrograms per cubic meter

- <sup>a</sup> Contribution from existing sources represent the health risks within 1,000 feet of the maximum exposed receptor. As described above, the maximum exposed receptor consists of two offsite receptors during construction. Therefore, the highest risk, index, and concentration amongst the two receptors is reported in this table. See Figure 4.1-1 for existing stationary, roadway, and rail sources.
- <sup>b</sup> Contributions from project construction reported with implementation of construction mitigation measures.
- <sup>c</sup> The higher risk, index, and concentration amongst the two offsite receptors is reported in this table.
- <sup>d</sup> This receptor is an onsite receptor.

As concluded in the General Plan EIR, buildout of the General Plan would result in less than significant odor impacts. Construction activities would generate odors from diesel exhaust, asphalt paving, and the use of architectural coatings and solvents, but activities would be temporary and would not result in nuisance orders that would violate BAAQMD's Regulation 7. In addition, future project activities are not anticipated to affect the operation of odor-generating facilities.

As discussed under Impact AQ-4, the proposed project would not generate substantial odors. For these reasons, the proposed project, in combination with other past, present, and reasonably foreseeable future projects, would not result in a significant cumulative odor impact. The cumulative impact would be *less than significant*.



## 4.2 Biological Resources

This section describes the environmental and regulatory setting for biological resources. It also describes impacts on biological resources that would result from implementation of the project and mitigation for significant impacts where feasible and appropriate. This section is based, in part, on the *Tree Inventory for the Station East Residential/Mixed-Use Project* (tree inventory) prepared for the project by ICF (**Appendix 4.2-1**).

No comments regarding biological resources were received in response to the Notice of Preparation (NOP).

### 4.2.1 Existing Conditions

#### 4.2.1.1 Environmental Setting

The six-parcel, approximately 26.5-acre project site in the City of Union City is bound by Decoto Road, 7<sup>th</sup> Street, Bradford Way, and the Niles subdivision Union Pacific Railroad (UPRR) tracks. The project site is occupied by existing and vacant industrial uses, surface parking, and an agricultural field. Five land cover types are present on the project site, as discussed in detail below.

Landscaping on the project site is limited to trees and ornamental landscape features. As discussed in the tree inventory (**Appendix 4.2-1**), the project site contains approximately 68 trees, 47 of which are considered protected trees.<sup>1,2</sup> The trees are located primarily along the northern and eastern perimeters of the project site. The existing tree species include coast live oak, Peruvian pepper tree, and blue gum.

The elevation of the project site ranges from 50 to 63 feet above sea level, and the soil is 100 percent Rincon clay loam, with 0 to 2 percent slopes.<sup>3</sup> The project site is within the Lower Alameda Creek watershed, with water flowing generally east to west, leading to San Francisco Bay by way of Alameda Creek.

The project site is surrounded by a variety of land uses, including industrial, agricultural, mixed-use commercial, and residential. Multiple parks and recreational areas are also in the vicinity of the project site.

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<sup>1</sup> Under the Union City Municipal Code, Chapter 12.16.170, Tree Conservation, protected trees are (a) all trees that have a 35-inch or greater trunk circumference or, in the case of multi-trunk trees, a total of 70 inches or more for the circumference of all trunks where trees are located on residential property; (b) all trees that have a 12-inch or greater trunk circumference when removal relates to any transaction for which zoning approval or subdivision approval is required; (c) any tree that existed at the time of zoning approval or subdivision approval and was a specific subject of such approval or otherwise covered by paragraph "b" of this subdivision; (d) any tree that was required to be planted by the terms of a zoning approval or a subdivision approval; (e) all trees that have a 12-inch or greater trunk circumference on a vacant lot or undeveloped property; and (f) all trees that have a 12-inch or greater trunk circumference on any developed commercial, office, or industrial property.

<sup>2</sup> ICF. 2020. *Tree Inventory for the Station East Residential/Mixed Use Project*. March.

<sup>3</sup> U.S. Department of Agriculture. n.d. *Web Soil Survey*. Natural Resources Conservation Service. Available: <https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>. Accessed: March 9, 2020.

The nearest creek, Dry Creek, is approximately 0.7 mile northwest of the project site. Dry Creek is a tributary of Alameda Creek, which is approximately 1.2 miles south of the project site. The nearest open space with potential for sensitive natural communities is 0.2 mile north of the project site on private property northeast of Mission Boulevard; this property is connected to Garin and Dry Creek Pioneer Regional Parks, approximately 0.6 mile northeast of the project site. The project site is separated from this open space by residential development, multiple paved roads, and agricultural uses. The Quarry Lakes Regional Recreational Area is 1.2 miles south of the project site.

Salt marsh habitat and open water habitat related to San Francisco Bay are approximately 3.8 and 6.5 miles west of the project site, respectively. The project site is separated from these locations by heavy urban development.

## Land Cover Types

For the purposes of this analysis, a *land cover type* is defined as the dominant character of the land surface. The land cover type is determined by vegetation, water, or human uses. Land cover types are the most widely used in analyzing ecosystem function, habitat diversity, natural communities, aquatic resources, and species habitat. Land cover types provide the foundation for analyzing impacts on biological resources (e.g., special-status plant communities, aquatic resources). A review of Google Earth imagery and a survey of the project site on April 15, 2019, were used to determine the five land cover types at the project site, which include:

- Agriculture
- Developed
- Annual Grassland
- Landscaped
- Ruderal

The acreage of each existing land cover type on the project site is shown in Table 4.2-1 and Figure 4.2-1. Descriptions of the land cover types are provided below. No wetland, aquatic, or riparian plant communities are located within the project site. Approximately 80 percent of the project site is made up of agriculture and developed land cover types. Agriculture, the predominant land cover type, consists of a wheat field in the southern portion of the project site, west of Bradford Street and north of the UPRR tracks. The developed land cover type is made up of structures and pavement in the northern portion of the project site, along Decoto Road, 7<sup>th</sup> Street, and Bradford Street. Landscaped land cover types occur adjacent to the developed land cover, along the sidewalks on Decoto Road, 7<sup>th</sup> Street, and Bradford Street. Two sections of annual grassland, separated by a narrow section of developed land cover, are located in the center and the southwest corner of the project site. Ruderal land cover, located predominately on the project site's northern half, is scattered throughout the site in small areas adjacent to or surrounded by developed land cover.

### ***Agriculture***

The agriculture land cover type includes orchards and vineyards, rice fields, irrigated cropland, irrigated pasture land, and nonnative woodland. Nonnative woodland is included in the agricultural land cover type because it consists of eucalyptus plantations that have been planted for commercial

**Table 4.2-1. Existing Land Cover Types on the Project Site**

Type	Acres	Percent
Agriculture	12.3	46.5
Developed	8.4	31.5
Annual Grassland	2.0	7.7
Landscaped	1.1	4.0
Ruderal	2.7	10.3
<b>Total</b>	<b>26.5</b>	<b>100</b>

See Figure 4.2-1, which shows the existing land cover types on the project site.

purposes (e.g., pulp production). The conversion of land for agricultural use results in the removal of historical native habitat and generally does not support the wildlife density and diversity of most native habitats. However, this land cover type supports abundant wildlife populations and provides essential breeding, foraging, and roosting habitat for many resident and migrant wildlife species.

Row and field crops provide foraging opportunities for a variety of raptors, including red-tailed hawk (*Buteo jamaicensis*), white-tailed kite (*Elanus leucurus*), northern harrier (*Circus cyaneus*), great horned owl (*Bubo virginianus*), and other migratory and resident birds, such as Brewer's blackbird (*Euphagus cyanocephalus*), red-winged blackbird (*Agelaius phoeniceus*), tricolored blackbird (*Agelaius tricolor*), American crow (*Corvus brachyrhynchos*), European starling (*Sturnus vulgaris*), western meadowlark (*Sturnella neglecta*), mourning dove (*Zenaidura macroura*), and rock dove (*Columba livia*). Mammals are known to occur in all types of agricultural lands and include coyote (*Canis latrans*), gray fox (*Urocyon cinereoargenteus*), black-tailed jackrabbit (*Lepus californicus*), California ground squirrel (*Spermophilus beecheyi*), Botta's pocket gopher (*Thomomys bottae*), deer mouse (*Peromyscus maniculatus*), and California vole (*Microtus californicus*). Reptiles such as western fence lizard (*Sceloporus occidentalis*), gopher snake (*Pituophis catenifer*), and California kingsnake (*Lampropeltis getula californiae*) may also be found in association with agricultural areas.

#### **Developed and Landscaped**

Developed and landscaped land cover types include all types of residential, commercial, industrial, transportation, and recreational development (e.g., sites with structures, paved surfaces, horticultural plantings, golf courses, and irrigated lawns). Vegetation in developed and landscaped areas is highly variable, ranging from nonexistent in paved areas to maintained lawns and ornamental shade trees elsewhere. Common ornamental species include California fan palm (*Washingtonia filifera*), Canary Island palm (*Phoenix canariensis*), eucalyptus (*Eucalyptus* sp.), olive (*Olea europaea*), oleander (*Nerium oleander*), and pepper tree (*Schinus molle*), among others.

Wildlife species occurring in developed and landscaped areas are typically generalists that have adapted to human-modified landscapes. Ornamental trees and lawns provide nesting and foraging habitat for urban-adapted birds such as American crow (*Corvus brachyrhynchos*), California scrub-jay (*Aphelocoma californica*), American robin (*Turdus migratorius*), northern mockingbird (*Mimus polyglottos*), European starling (*Sturnus vulgaris*), and house finch (*Haemorhous mexicanus*). Other common wildlife species found in developed and landscaped areas include Virginia opossum (*Didelphis virginiana*), northern raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), and a variety of rodents. Some barren areas near graded railroad spurs also support California ground squirrels (*Spermophilus beecheyi*).

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**Figure 4.2-1**  
**Existing Vegetation Communities and Land Cover**  
**Types on the Project Site**

### **Annual Grassland**

The vegetation in annual grasslands consists primarily of nonnative annual grasses, which can include soft chess (*Bromus hordeaceus*), rigput brome (*B. diandrus*), wild oats (*Avena* spp.), and Italian ryegrass (*Lolium multiflorum*). Native perennial grasses, native forbs, and nonnative forbs also occur in grasslands without wetlands (e.g., vernal pools). Representative native species that are known to occur in grasslands are purple needlegrass (*Nassella pulchra*), Indian ryegrass (*Oryzopsis hymenoides*), butter-and-eggs (*Triphysaria eriantha*), California poppy (*Eschscholzia californica*), and pit gland tarweed (*Holocarpha virgata*).

Annual grasslands provide food and cover for small mammals, including California ground squirrel (*Spermophilus beecheyi*), Botta's pocket gopher (*Thomomys bottae*), deer mouse (*Peromyscus maniculatus*), California vole (*Microtus californicus*), and black-tailed hare (*Lepus californicus*). Consequently, raptors such as red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*Buteo lineatus*), white-tailed kite (*Elanus leucurus*), great horned owl (*Bubo virginianus*), western meadowlark (*Sturnella neglecta*), and turkey vulture (*Cathartes aura*) forage in annual grasslands. Other characteristic wildlife species include gopher snake (*Pituophis catenifer*), western bluebird (*Sialia mexicana*), and western meadowlark (*Sturnella neglecta*). Burrowing owl (*Athene cunicularia*) and coyote (*Canis latrans*) may use these areas for denning and foraging.

### **Ruderal**

Ruderal cover occurs in areas where natural vegetation has been removed or significantly degraded by past or current human activity. Ruderal vegetation is often associated with areas along railroad tracks, vacant lots, roads, and other highly disturbed areas, including areas used for agriculture. Ruderal vegetation is typified by the dominance of nonnative annual grasses and forbs that thrive in disturbed conditions, including bristly ox tongue (*Helminthotheca echioides*), bull thistle (*Leptosiphon acicularis*), Italian thistle (*Carduus pycnocephalus*), prickly lettuce (*Lactuca serriola*), short-pod mustard (*Hirschfeldia incana*), stinkwort (*Dittrichia graveolens*), yellow star-thistle (*Centaurea solstitialis*), English plantain (*Plantago lanceolata*), jimson weed (*Datura stramonium*), and Russian thistle (*Salsola tragus*). Ruderal areas may be similar to California annual grassland areas but characterized by a greater level of disturbance.

Ruderal areas are generally low-value habitats for wildlife. However, some of these areas can provide marginal wildlife habitat, depending on the vegetation and other habitat features. The wildlife species occurring in ruderal land cover are determined primarily by the characteristics of nearby natural, less-disturbed habitat, although the dense cover provided by weeds often attracts large flocks of foraging songbirds, which are otherwise absent from adjacent developed, grassland, woodland, and wetland areas. Species within this category include white-crowned sparrow (*Zonotrichia leucophrys*), American goldfinch (*Spinus tristis*), dark-eyed junco (*Junco hyemalis*), and song sparrow (*Melospiza melodia*). Such cover also provides habitat for common reptiles such as western fence lizard (*Sceloporus occidentalis*), gopher snake (*Pituophis catenifer*), and common garter snake (*Thamnophis sirtalis*).

### **Wetlands**

The National Wetlands Inventory (NWI) of the U.S. Fish and Wildlife Service (USFWS) is a publicly available resource that provides detailed information regarding the abundance, characteristics, and distribution of wetlands. Some wetland and stream features, such as freshwater seeps and springs, are generally not identified as part of the NWI because of the general scale of the mapping effort. As

illustrated in the *2040 Union City General Plan Update Environmental Impact Report*<sup>4</sup> (General Plan EIR) mapped wetland features within the City include estuarine and marine wetlands, freshwater emergent wetlands, freshwater forested/shrub wetlands, freshwater ponds, and riverine features. Riverine features correspond with streams and creeks, including Alameda Creek and Dry Creek. The streams and the majority of the wetlands in the City are likely subject to U.S. Army Corps of Engineers (USACE) jurisdiction under Section 404 of the Clean Water Act. In addition, these wetlands and streams are subject to California Department of Fish and Wildlife (CDFW) and State Water Resources Control Board (SWRCB) jurisdiction.

Based on aerial photography and NWI mapping,<sup>5</sup> there are no federally protected wetlands or other jurisdictional waters within the project site or in the immediate vicinity. Although the NWI identifies riverine habitat within the project site, ICF did not observe such habitat during the April 15, 2019, site visit. In addition, the freshwater emergent wetland documented approximately 0.1 mile south of the project site is no longer present because it has been filled in by development. The nearest federally protected wetland is the riverine habitat approximately 0.1 mile southeast of the project site. This habitat is fed intermittently by runoff from the foothills northwest of the project site and Mission Boulevard; it ultimately flows Alameda Creek, located southeast of the project.

### Special-Status Species

Special-status species are defined as:

- Species that are listed as threatened or endangered under the USFWS Federal Endangered Species Act (FESA) or designated as candidates for listing;
- Species that are listed as rare (plants), threatened, or endangered under the CDFW California Endangered Species Act (CESA) or designated as candidates for listing;
- Wildlife species designated as species of special concern or fully protected by the CDFW;
- Plant species designated as List 1A, List 1B, List 2, and List 3 by the California Native Plant Society (CNPS) Inventory of Rare and Endangered Vascular Plants of California, eighth edition;
- Species that meet the definition of rare or endangered under the California Environmental Quality Act (CEQA) (under Section 15380 of CEQA, a species not included on any formal list “shall nevertheless be considered rare or endangered if the species can be shown to meet the criteria” for listing); and/or
- Bat species ranked by the Western Bat Working Group (WBWG) as species with a “moderate” or “high” designation status under CEQA.<sup>6</sup>

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<sup>4</sup> Rincon Consultants, Inc. *2040 Union City General Plan Update Environmental Impact Report*. November 2019.

<sup>5</sup> U.S. Fish and Wildlife Service. 2019. *National Wetland Inventory*. Updated: May 23, 2019. Available: <https://www.fws.gov/wetlands/>. Accessed: February 28, 2020.

<sup>6</sup> Western Bat Working Group. 2018. *Species Matrix, Based on the Western Bat Working Group Workshop Held in Reno, Nevada, February 9–13, 1998*. Available: <http://wbwg.org/matrices/species-matrix/>. Accessed: March 3, 2020.



Information regarding the occurrences of special-status species in the vicinity of the project site was obtained from a query of the CDFW's California Natural Diversity Database (CNDDDB),<sup>7</sup> the USFWS Information for Planning and Conservation (IPaC) database,<sup>8</sup> and the CNPS Inventory of Rare and Endangered Vascular Plants of California, eighth edition.<sup>9</sup> The CNDDDB query included a 5-mile buffer around the project site, the IPaC query included the project site, and the CNPS query included the Dublin (3712168), Hayward (3712261), Newark (3712251), and Niles (3712158) U.S. Geological Survey (USGS) 7.5-minute series quadrangles. **Appendix 4.2-2** lists the special-status wildlife and plant species with potential to occur on the project site, along with a discussion of their geographic distribution, general habitats, and potential to occur on the project site. The rationale that explains the determination of potential to occur at the project site is also included.

Based on the records search, 12 special-status plant species and 31 special-status animal species were identified as having the potential to occur at the project site. However, based on habitat suitability, it was determined that no special-status plant species and eight special-status animal species have moderate or high potential for occurrence on the project site.

#### 4.2.1.2 Regulatory Setting

##### Federal

##### Federal Endangered Species Act

USFWS and the National Marine Fisheries Service (NMFS) administer FESA. FESA requires each agency to maintain lists of imperiled native species and affords substantial protections to these "listed" species. NMFS' jurisdiction under FESA is limited to the protection of marine mammals, marine fishes, and anadromous fishes; all other species are subject to USFWS jurisdiction.

USFWS and NMFS may "list" a species if it is endangered (at risk of extinction throughout all or a significant portion of its range) or threatened (likely to become endangered within the foreseeable future). Section 9 of FESA prohibits the "take" of any wildlife species listed as endangered and most species listed as threatened. Take, as defined by FESA, means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or to attempt to engage in any such conduct." Harm is defined as "any act that kills or injures the species, including significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering" (50 Code of Federal Regulations 17.3).

FESA includes exceptions to general take prohibition that allow an action to be carried out, despite the fact that the action may result in take of listed species where conservation measures are included for the species. Section 7 of FESA provides an exception for actions authorized (e.g., under a Section 404 permit), funded, or carried out by a federal agency, and Section 10 provides an exception for actions that do not involve a federal agency.

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<sup>7</sup> California Department of Fish and Wildlife. 2020. *California Natural Diversity Database, RareFind Records Search of Cupertino and San José West U.S. Geological Survey 7.5-minute Quadrangles*. RareFind Version 5. Available: <https://www.wildlife.ca.gov/Data/CNDDDB/Maps-and-Data>. Accessed: March 27, 2020.

<sup>8</sup> U.S. Fish and Wildlife Service. 2019. *IPaC Species List*. Available: <https://ecos.fws.gov/ipac/>. Accessed: February 27, 2020.

<sup>9</sup> California Native Plant Society. 2019. *Online Inventory of Rare and Endangered Plants of California*. Available: [http://cnps.site.aplus.net/cgi-bin/inv/inventory.cgi/Html?item=checkbox\\_9.htm](http://cnps.site.aplus.net/cgi-bin/inv/inventory.cgi/Html?item=checkbox_9.htm). Accessed: March 27, 2020.

### **Federal Clean Water Act, Section 404**

The Clean Water Act is the primary federal law that protects the quality of the nation's waters, including wetlands, lakes, rivers, and coastal areas. Section 404 of the Clean Water Act regulates the discharge of dredged or fill material into the waters of the United States, including wetlands. The Clean Water Act holds that all discharges into the nation's waters are unlawful unless specifically authorized by a permit; issuance of such permits constitutes its principal regulatory tool.

The USACE is authorized to issue Section 404 permits, which allow the placement of dredged or fill materials into jurisdictional waters of the United States under certain circumstances. The USACE issues two types of permits under Section 404: general permits, which are either nationwide permits or regional permits, and standard permits, which are either letters of permission or individual permits. General permits are issued by the USACE to streamline the Section 404 permitting process for nationwide, statewide, or regional activities that have minimal direct or cumulative environmental impacts on the aquatic environment. Standard permits are issued for activities that do not qualify for a general permit because they may have more than a minimal adverse environmental impact.

### **Federal Clean Water Act, Section 401**

Under the Clean Water Act Section 401, applicants for a federal license or permit to conduct activities that may result in the discharge of a pollutant into waters of the United States must obtain certification from the State in which the discharge would originate. Therefore, all projects that have a federal component and may affect State water quality, including projects that require federal agency approval, such as issuance of a Section 404 permit, must also comply with Clean Water Act Section 401 and the State's Porter-Cologne Water Quality Control Act. In California, Section 401 certification is handled by the nine Regional Water Quality Control Boards (RWQCBs) and SWRCB. Union City falls under the jurisdiction of the San Francisco Bay RWQCB. The San Francisco Bay RWQCB must certify that the discharge will comply with State water quality standards and other requirements of the Clean Water Act.

### **Migratory Bird Treaty Act**

The Migratory Bird Treaty Act of 1918 (MBTA), as amended, implements various treaties and conventions between the United States and Canada, Japan, Mexico, and the former Soviet Union for the protection of migratory birds. Under the MBTA, taking, killing, or possessing migratory birds is unlawful, as is taking of any parts, nests, or eggs of such birds (16 United States Code 703). Take is defined more narrowly under the MBTA than under FESA and includes only death or injury involving individuals of a migratory bird species or its eggs. As such, take under the MBTA does not include the concepts of harm and harassment, as defined under FESA.

## **State**

### **California Endangered Species Act**

Administered by the CDFW, CESA prohibits the take of listed species and also species formally under consideration for listing in California, referred to as *candidate species*. Under CESA, "take" means "hunt, pursue, catch, capture, or kill or attempt to hunt, pursue, catch, capture, or kill." (California Fish and Game Code Section 86.) Under this definition, in contrast to FESA, CESA does not prohibit "harm" to a listed species. Furthermore, take under CESA does not include "the taking of habitat alone or the

impacts of the taking.” However, the killing of a listed species that is incidental to an otherwise lawful activity and not the primary purpose of the activity constitutes take under CESA. CESA does not protect insects but, with certain exceptions, does prohibit take of plants on private land.

### **Natural Community Conservation Planning Act**

The Natural Community Conservation Planning Act was enacted to implement broad-based planning and provide effective protection and conservation of California’s wildlife heritage while allowing appropriate development and growth. The Natural Community Conservation Planning Act does not focus on only listed species. It is broader in its orientation and objectives compared with FESA and CESA. The Natural Community Conservation Planning Act encourages local, State, and federal agencies to prepare comprehensive conservation plans that maintain the continued viability of species and biological communities that have been affected by human changes to the landscape. The Natural Community Conservation Planning Act provides for incidental take authorization such that covered activities resulting in incidental take of listed species may be carried out without violating CESA. Permits issued under the Natural Community Conservation Planning Act can also be broad and may include both listed species and non-listed species.

### **State Fish and Game Code, Sections 1600–1616**

The CDFW has jurisdictional authority over streams and lakes, as well as wetland resources associated with these aquatic systems, under California Fish and Game Code Section 1600 et seq. The CDFW has the authority to regulate work that will “substantially divert or obstruct the natural flow of, or substantially change or use any material from, the bed, channel, or bank of any river, stream, or lake or deposit or dispose of debris waste or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake” (California Fish and Game Code Section 1602.). An entity that proposes to carry out such an activity must first inform the CDFW. Where the CDFW concludes that the activity will “substantially adversely affect an existing (2014) fish or wildlife resource,” the entity proposing the activity must negotiate an agreement with the CDFW that specifies terms under which the activity may be carried out in a way that protects the affected wildlife resource.

### **Porter-Cologne Water Quality Control Act**

California Water Code Section 13260 requires “any person discharging waste, or proposing to discharge waste, in any region that could affect the waters of the State to file a report of discharge (an application for waste discharge requirements [WDRs]).” Under the Porter-Cologne Water Quality Control Act definition, *waters of the State* are “any surface water or groundwater, including saline waters, within the boundaries of the State.” Although all waters of the United States that are within the borders of California are also waters of the State, the reverse is not true. Accordingly, California retains authority to regulate discharges of waste into any waters of the State, regardless of whether the USACE has concurrent jurisdiction under CWA Section 404. If USACE determines that a wetland is not subject to regulation under Section 404, CWA Section 401 water quality certification is not required. However, the RWQCB may impose WDRs if fill material is placed into waters of the State.

### **California Native Plant Protection Act**

The California Native Plant Protection Act of 1977 (CNPPA) prohibits importation of rare and endangered plants into California, take of rare and endangered plants, and the sale of rare and endangered plants. CESA defers to the CNPPA, which ensures that State-listed plant species are protected when State agencies are involved in projects subject to CEQA. In that case, plants listed as rare under the CNPPA are not protected under CESA but rather under CEQA.

## Local

### Union City Municipal Code

Chapter 12.60.170 of the Union City Municipal Code, the Tree Conservation Ordinance, regulates the preservation of trees for the health and welfare of the citizens of the City in order to preserve scenic beauty, prevent topsoil erosion, protect against flood hazards and landslides, counteract pollutants in the air, maintain the climatic balance, and decrease wind velocities, all of which contribute greatly to the value of land in the City. The ordinance is intended to limit the removal of significant trees within the City in order to retain as many trees as possible, consistent with the reasonable economic enjoyment of private property. Trees that are protected by Union City Municipal Code Chapter 12.16.170 are as follows:

- a. All trees that have a trunk circumference of 35 inches or more and multi-trunk trees that have a total trunk circumference of 70 inches or more where such trees are located on residential property;
- b. All trees that have a trunk circumference of 12 inches or more when removal relates to any transaction for which zoning approval or subdivision approval is required;
- c. Any tree that existed at the time of zoning approval or subdivision approval that was the specific subject of such approval or otherwise covered by paragraph (b) of this subdivision;
- d. Any tree that was required to be planted by the terms of a zoning approval or subdivision approval;
- e. All trees that have a trunk circumference of 12 inches or more and are located on a vacant lot or undeveloped property; and
- f. All trees that have a trunk circumference of 12 inches or more and are located on developed commercial, office, or industrial property.

Tree circumference is measured 3 feet above the ground (Union City Municipal Code Chapter 12.16.170-B3). Union City Municipal Code Chapter 12.16.170-C states that it is unlawful for any person to trim or remove a tree that is covered by the code without a tree removal permit, with exceptions related to orchard trees, trees that are hazardous or dangerous to life or property, or orders from the Director of Public Works. As a condition for granting a permit, the deciding official or deciding body may require one or more replacement trees of a species and size designated by the Director of Public Works to be planted on public or private property. The person requesting the permit or the property owner may also be required to pay the cost of obtaining and planting the replacement trees.

### City of Union City 2040 General Plan

The *City of Union City 2040 General Plan* (General Plan) includes the following goals and policies associated with biological resources:

**Goal RC-2:** To protect, restore, and enhance important biological habitats and their associated plant, wildlife, and fish species throughout Union City and educate people as to this need.

**Policy RC-2.1: Preserve Significant Natural Resources.** The City shall commit to preservation of significant natural resources, including wetlands, bay shores, hillside areas, and significant plant, animal, and fish habitats.

**Policy RC-2.2: Require Biological Surveys.** The City shall require a site survey by a qualified biologist for sites that have the potential to contain critical or sensitive habitat or special-status species or sites within 100 feet of such areas. Appropriate mitigation measures shall be incorporated into the project as necessary to protect the resources.

**Policy RC-2.10: Nesting Bird Protection.** The City shall require project applicants to retain the services of a qualified biologist(s) to conduct a pre-construction nesting bird survey during the nesting season (February 1 through August 31) prior to all new development that may remove any trees or vegetation that may provide suitable nesting habitat for migratory birds or other special-status bird species. If nests are found, the qualified biologist(s) shall identify appropriate avoidance measures, and these measures shall be incorporated into the project and implemented accordingly.

### **Decoto Industrial Park Study Area Specific Plan**

The *Decoto Industrial Park Study Area Specific Plan* (DIPSA) Specific Plan (most recently amended in July 2006) includes the following policies associated with biological resources:

**Environmental Management Policy 19:** Permit development only where it will not adversely affect ecologically sensitive resources.

**Objective a.** Plan land uses to minimize adverse impacts on wetlands, endangered species habitats, and other sensitive resources.

#### **Plan Elements:**

**H. Environmental:** A variety of potential environmental resources and constraints are located within the DIPSA area. Development of the DIPSA must be conducted in a manner that is responsive to these environmental issues, as addressed in the specific plan's environmental impact report (EIR).

**Policy and Standards 4:** If implementation of specific development projects on vacant parcels with grassland or ruderal cover would occur during the months of April through August, it is required that a qualified biologist conduct site-specific surveys for burrowing owls. If nests are encountered, an appropriate buffer zone shall be established, and construction activities shall be prohibited within this zone during the nesting season (typically April through July). Representatives of the CDFW shall be consulted to determine whether the nest burrow should be protected and a permanent buffer established or whether the nest site may be destroyed once the young have fled. Construction activities within the buffer zone shall not proceed until the qualified biologist has determined that the owls have fled and the nest can be destroyed or a CDFW-approved relocation plan is successfully implemented.

## **4.2.2 Environmental Impacts**

This section contains the impact analysis for the proposed project as it relates to biological resources. The methods used to determine the potential project-related impacts, as well as the thresholds of significance used to conclude whether or not an impact would be significant, are described below. Measures that would mitigate (i.e., avoid, minimize, rectify, eliminate, or compensate for) significant impacts are included within each impact discussion where they have been deemed necessary and appropriate.

### 4.2.2.1 Thresholds of Significance

California Environmental Quality Act (CEQA) Guidelines Appendix G (14 California Code of Regulations [CCR] 15000 et seq.) identifies significance criteria to be considered for determining whether a project could have significant impacts on existing biological resources. Would the project:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the CDFW or USFWS?
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFW or USFWS?
- Have a substantial adverse effect on State- or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal areas, etc.) through direct removal, filling, hydrological interruption, or other means?
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species, or established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
- Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan?

### 4.2.2.2 Methods for Analysis

Potential project-related impacts on biological resources was based on a review of the information sources identified in *Existing Conditions*; observations collected from a site visit conducted by ICF biologists Ross Wilming and Danielle Tannourji on April 15, 2019; and the following sources:

- 2040 Union City General Plan update Draft EIR;<sup>10</sup>
- Identification of waters and wetlands, using existing water/wetland inventory data (EPA);<sup>11</sup> and
- Aerial imagery from Google Earth.<sup>12</sup>

The purpose of the site visit on April 15, 2019, was to collect data for the tree inventory (**Appendix 4.2-1**); identify existing land cover types, including natural<sup>13</sup> and sensitive<sup>14</sup> communities within and adjacent to the project site; and assess habitat suitability for special-status species. The biologists documented existing conditions by photographing examples of all land cover types and potentially sensitive habitat features (e.g., trees or shrubs that provide habitat for nesting birds).

<sup>10</sup> Ibid.

<sup>11</sup> U.S. Environmental Protection Agency. 2020. *WATERS GeoViewer*. Available: <https://epa.maps.arcgis.com/apps/webappviewer/index.html?id=ada349b90c26496ea52aab66a092593b>. Accessed: February 27, 2020.

<sup>12</sup> Google Earth Pro. 2018. *700 Decoto Road*. Available: <https://www.google.com/earth/versions/#earth-pro>. Accessed: February 27, 2020.

<sup>13</sup> Natural habitat is defined as habitat that has not been planted/landscaped and is not dominated by nonnative species.

<sup>14</sup> Sensitive natural communities are identified by the California Department of Fish and Wildlife as habitats/communities of greater environmental concern in California, based on their rarity and existing threats and stressors (California Department of Fish and Wildlife 2019).

Based on the above information sources and observations from the site visit, ICF developed a list of special-status species with potential to occur on the project site (**Appendix 4.2-2**). This list is comprehensive and includes all species from existing federal and State lists, based on the query above, although some species may be of very low distribution or abundance or may no longer exist within the Alameda County region, including within Union City. Many of the species in the CNDDDB, CNPS, and USFWS lists are known to occur in Alameda County and distributed throughout the San Francisco Bay region but were eliminated from consideration (i.e., no potential for them to occur on the project site), based on the absence of the natural plant communities and/or substrates on which they depend (e.g., creeks, ponds, tidal salt and freshwater marshes, freshwater streams and rivers, chaparral and coastal scrub, woodland, vernal pools, sandy and rocky soils, serpentinite outcrops, alkaline and saline soils). To refine the list of species potentially affected by the project, each species was evaluated for its potential to occur within the project site and whether it would be affected by construction activities or operation of the project. Based on this evaluation, no plant species were determined to have potential to occur on the project site, and no wildlife species were determined to have high potential to occur on the project site. However, wildlife species with moderate potential to occur on the project site and native bird species protected under the MBTA and California Fish and Game Code are considered in this impact analysis and listed below. In addition, specifications regarding the protection of burrowing owls on vacant parcels with grassland or ruderal cover are addressed in the DIPSA Specific Plan. The project site contains vacant parcels with grassland and ruderal cover; thus, burrowing owls are considered in this impact analysis. Where impacts would be significant, mitigation measures are identified to reduce these impacts to a less-than-significant level. As shown in **Appendix 4.2-2**, wildlife species with moderate potential to occur on the project site include the following:

- Golden eagle (*Aquila chrysaetos*), foraging only
- Peregrine falcon (*Falco peregrinus anatum*), foraging only
- Northern harrier (*Circus cyaneus*), foraging only
- Tricolored blackbird (*Agelaius tricolor*), foraging only
- White-tailed kite (*Elanus leucurus*)
- Hoary bat (*Lasiurus cinereus*)
- Pallid bat (*Antrozous pallidus*)
- Townsend's big-eared bat (*Corynorhinus townsendii*)

These species, in addition to burrowing owls, are evaluated under Impact BIO-1.

As described in Section 4, *Environmental Impact Analysis*, subsequent to the drafting of this EIR, the applicant indicated that the residential units associated with proposed project would increase by 10, from 964 to 974 units. As described therein, the analysis presented throughout this EIR adequately accounts for the potential environmental impacts of the 974 new residential units.

### 4.2.2.3 Issues Not Evaluated Further

#### **Riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFW or USFWS.**

Sensitive or natural communities (vegetation types) have limited distribution statewide or within a county or region. CDFW's Vegetation Classification and Mapping Program (VegCAMP) works to classify and map the vegetation of California and determine the rarity of vegetation types. The current version of the CDFW VegCAMP List of Vegetation Alliances and Associations (Natural Communities List)<sup>15</sup> indicates which vegetation types are currently considered to be sensitive.

There is no riparian habitat or other sensitive natural community on the project site. The nearest riparian habitat is approximately 0.6 mile northwest of the project site. This is associated with Dry Creek, a tributary to Alameda Creek, which is approximately 1.2 miles south of the project site. The nearest open space with potential for other sensitive natural communities is 0.2 mile northeast of the project site on private property northeast of Mission Boulevard. This private property connects with Dry Creek Pioneer Regional Park to the north. The project site is separated from this open space by residential development, multiple paved roads, and a section of land currently that is being used for agriculture. Therefore, there would be **no impact** related to riparian habitat or other sensitive natural communities identified in local or regional plans, policies, or regulations or by CDFW or USFWS. This topic is not addressed further in this EIR.

#### **Impact through direct removal, filling, hydrological interruption, or other means on State or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal areas, etc.).**

There are no federally protected wetlands or other jurisdictional waters on the project site or in the immediate vicinity. Although the USFWS NWI<sup>16</sup> documents riverine habitat on the project site, the April 15, 2019, site visit conducted by ICF disproved the presence of this habitat on the project site. In addition, the freshwater emergent wetland documented in the NWI, located 0.1 mile (550 feet) south of the project site, is no longer present because it has been filled in by development. The nearest federally protected wetlands in proximity to the project site are riverine habitat areas located approximately 0.1 mile (700 feet) southeast of the project site. This habitat is fed intermittently by runoff from the foothills northwest of the project site and Mission Boulevard, ultimately flowing to Alameda Creek southeast of the project. The eastern portion of the project site is separated from this riverine habitat by flat areas of industrial development, including paved roads. The southern portion of the project site is separated from this riverine habitat by a large section of flat land currently being used for agriculture. Therefore, there would be **no impact** related to State or federally protected wetlands, including, but not limited to, marshes, vernal pools, coastal areas, etc., through direct removal, filling, hydrological interruption, or other means. This topic is not addressed further in this EIR.

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<sup>15</sup> California Department of Fish and Wildlife. 2019. *California Sensitive Natural Communities*. November 8. Available: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=153609&inline>. Accessed: July 9, 2020.

<sup>16</sup> U.S. Fish and Wildlife Service. 2019. *National Wetland Inventory*. Updated: May 23, 2019. Available: <https://www.fws.gov/wetlands/>. Accessed: February 28, 2020.



**Provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan.**

The project site is not within the permit area for any adopted habitat conservation plans (HCPs) or natural community conservation plans (NCCPs). The nearest area covered by an HCP is the northern boundary of the permit area for the Santa Clara Valley Habitat Plan, a combined HCP/NCCP, approximately 11 miles southeast of the project site. Therefore, there would be **no impact** related to provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan. This topic is not addressed further in this EIR.

**4.2.2.4 Impacts and Mitigation Measures****Impact BIO-1: The project could have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by CDFW or USFWS. (Less than Significant with Mitigation)**

The project site is mostly developed with structures or agricultural land cover, surrounded by additional development and agricultural land cover, and void of sensitive natural communities, as shown in Figure 4.2-1. Special-status species are, therefore, not anticipated to occur, with the exception of roosting bats, and migratory nesting birds. Although golden eagle, northern harrier, peregrine falcon, and tricolored blackbird may occasionally forage within or over the project site, human presence and disturbance within and surrounding the project site reduce the likelihood of foraging. In addition, nesting habitat is absent for golden eagle, peregrine falcon, and tricolored blackbird and marginal for northern harrier. Therefore, golden eagle, peregrine falcon, northern harrier, and tricolored blackbird would not be affected. Queries of the USFWS, CDFW's CNDDDB, and CNPS regarding species with potential to occur in the region that were considered in this analysis are included in **Appendix 4.2-2**.

Burrowing owls prefer areas of flat open ground with short grass or bare soil and mammal burrows for refuge. Potential for burrowing owls is low on the project site, as it has little preferred habitat. The preferred habitat that is within the project site is highly fragmented. In addition, a majority of the preferred habitat within the project site is not open because it is situated near trees, a wheat field, buildings, or other infrastructure. In addition, although not a site-specific burrowing owl survey, no mammal burrows were observed during the April 15, 2019 site visit. Although the potential is low, specifications regarding the protection of burrowing owls are addressed in the DIPSA Specific Plan (Plan Element H: Environmental, Policy and Standards 4) for sites that are vacant with grassland or ruderal cover. The project would remove all grassland and ruderal cover within the project site, resulting in a potential impact to burrowing owl habitat, if present. Implementation of Mitigation Measure BIO-1a would ensure this impact remains less than significant. Therefore, this impact would be **less than significant with mitigation**.

The structures on the project site have the potential to support nesting migratory birds (e.g., cliff swallow [*Petrochelidon pyrrhonota*], black phoebe [*Sayornis nigricans*], and house finch [*Haemorhous mexicanus*], which are protected under the MBTA, and roosting special-status bat species (i.e., pallid bat [*Antrozous pallidus*] and Townsend's big-eared bat [*Corynorhinus townsendii*]), provided there is an access point to the structures (e.g., building vent, opening in the roof or wall, an open window) or suitable roosting habitat under their eaves.

Grassland, ornamental shrubs, and trees on and near the project site offer suitable nesting habitat for migratory birds (e.g., northern mockingbird [*Mimus polyglottos*], mourning dove [*Zenaida macroura*], and white-crowned sparrow [*Zonotrichia leucophrys*]) and raptors (e.g., Cooper's hawk [*Accipiter cooperii*] and red-tailed hawk [*Buteo jamaicensis*]) protected under the MBTA and California Fish and Game Code Section 3503, including white-tailed kite (*Elanus leucurus*), a California fully protected species. Large trees on the project site also provide potential roosting habitat for special-status bat species (e.g., hoary bat [*Lasiurus cinereus*] and pallid bat [*Antrozous pallidus*]) if trees have large cavities. Other non-special-status bat species could also roost in structure cavities. The project would remove all potential existing nesting and roosting habitat (i.e., vegetation, trees, structures) within the project site. Therefore, this impact would be significant. Implementation of Mitigation Measures BIO-1b, and BIO-1c prior to structure and tree removal would ensure protection of nesting and roosting birds and bats thereby reducing the potential for a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the CDFW or USFWS. Consequently, this impact would be **less than significant with mitigation**.

#### **Mitigation Measure BIO-1a: Burrowing Owl Protection**

The project applicant shall implement the following measures prior to any construction activities:

- If construction activities occur between April and August, the project applicant shall retain a qualified biologist\* to conduct preconstruction surveys for burrowing owl 14 days prior to and within 24 hours of the start of construction activities.
  - If an active burrow is identified, an appropriate no-disturbance buffer zone shall be established that extends a minimum of 250 feet around the burrow, and construction activities shall be prohibited within this zone during the nesting season (April through July).
  - Buffers may be modified based on the opinion of the biological monitor and in coordination with CDFW taking into consideration site specific conditions (e.g., line of sight to activities, specific activities taking place).
  - Representatives of the CDFW shall be consulted to determine whether the nest burrow should be protected and a permanent buffer established or whether the nest site may be destroyed once the young have fled.
  - Construction activities within the buffer zone shall not proceed until the qualified biologist has determined that the owls have fled and the nest can be destroyed or a CDFW-approved relocation plan is successfully implemented.
- \* The experience requirements for a "qualified biologist" shall include a minimum of 4 years of academic training and professional experience in biological sciences and related resource management activities, and a minimum of 2 years of experience conducting surveys for each species that may be present within the project area.

#### **Mitigation Measure BIO-1b: Bat Protection**

The project applicant shall implement the following measures prior to any construction activities:

- The project applicant shall retain a qualified biologist to conduct preconstruction surveys and implement protective measures for hoary bat, pallid bat, Townsend's big-eared bat, and other roosting bats. At least 2 months prior to the demolition of the existing buildings and

structures, a qualified biologist shall conduct an initial daytime survey to assess the building for potential bat roosting habitat, and to look for bats and bat sign. Qualified biologists shall have knowledge of the natural history of the species that could occur and sufficient experience determining bat occupancy and bat survey techniques. The qualified biologist shall examine both the inside and outside of the building and structures for potential roosting habitat, as well as routes of entry to the building and structures. Locations of any roosting bats, signs of bat use, and entry and exit points shall be noted and mapped on a drawing of the buildings and structures. Roost sites shall also be photographed as feasible. Depending on the results of the habitat assessment, the following steps will be taken as described below.

- If the building and structures can be adequately assessed (i.e., all areas of the building and structures can be examined) and no habitat or limited habitat for roosting bats is present and no signs of bat use are present, a preconstruction survey of the interior and exterior of the buildings and structures by a qualified biologist shall be conducted within 24 hours of demolition.
- If moderate or high potential habitat is present, but there are no signs of bat use, the project applicant shall implement measures under the guidance of a qualified biologist to exclude bats from using the buildings and structures as a roost site, such as sealing off entry points. Prior to installing exclusion measures, a qualified biologist shall re-survey the buildings and structures to ensure that no bats are present. Additionally, a preconstruction survey of the interior and exterior of the building and structures shall be conducted within 24 hours of demolition to confirm that no bats are present.
- If moderate or high potential habitat is present and bats or bat sign are observed, or if exclusion measures are not installed as described above, or the buildings and structures provides suitable habitat but could not be adequately assessed, the following protective measures shall be implemented.
  - Follow-up surveys shall be conducted to determine if bats are still present. If species identification is required by the California Department of Fish and Wildlife (CDFW), surveys using night vision goggles and active acoustic monitoring using full spectrum bat detectors shall be used. A survey plan (number, timing, and type of surveys) shall be determined in coordination with CDFW.
  - Based on the timing of demolition, the extent of bat sign or occupied habitat, and the species present (if determined), the qualified biologists shall work with the City and CDFW to develop a plan to discourage or exclude bat use prior to demolition. The plan may include installing exclusion measures or using light or other means to deter bats from using the buildings and structures to roost.
  - A preconstruction survey of the interior and exterior of the buildings and structures shall be conducted within 24 hours of demolition.
- Depending on the species of bats present, size of the bat roost, and timing of the demolition, additional protective measures may be necessary. Appropriate measures shall be determined in coordination with the CDFW and may include measures listed below.
  - To avoid impacts on maternity colonies or hibernating bats, the buildings and structures shall not be demolished while bats are present, generally between April 1 and September 15 (maternity season) and from October 30 to March 1 (hibernation).

- Removal of roosting habitat shall only occur following the maternity season and prior to hibernation, generally between September 15 and October 30, unless exclusionary devices are first installed (as described below). Other measures, such as using lights to deter bat roosting, may be used if developed in coordination with and approved by CDFW.
- Installation of exclusion devices shall occur before maternity colonies establish or after they disperse, generally from March 1 –30 or September 15–October 30 to preclude bats from occupying a roost site during demolition. Exclusionary devices shall only be installed by or under the supervision of a qualified biologist.

The project applicant shall implement the following measures prior to tree removal or trimming:

- Project applicant(s) shall avoid impacts on maternity colonies or hibernating bats if identified by avoiding tree removal between April 1 and September 15 (maternity season) and between October 30 and March 1 (hibernation) to the extent feasible.
- No more than 2 weeks prior to the start of tree removal or trimming, a qualified biologist shall examine the trees that are to be removed or trimmed to identify suitable bat roosting habitat. High-quality habitat features (e.g., large tree cavities, basal hollows, loose or peeling bark, larger snags) shall be identified, and the area around these features shall be searched for bats and bat sign (e.g., guano, culled insect parts, staining). If the qualified biologist concludes that the trees do not provide suitable bat roosting habitat, no further actions are necessary and tree removal or trimming may commence.

If the daytime survey identifies moderate or high potential for bats, an evening survey shall be conducted. The qualified biologist shall conduct evening visual emergence surveys of the source habitat feature from a half hour before sunset to 1 to 2 hours after sunset for a minimum of 2 nights within the season when construction shall take place. Night-vision goggles or full-spectrum acoustic detectors shall be used during emergence surveys to assist in species identification. All emergence surveys shall be conducted during favorable weather conditions (i.e., calm nights with temperatures conducive to bat activity [55 degrees and above] and no precipitation). If it is found that roosting special-status bats are present, protective measures determined by the qualified biologist in coordination with CDFW shall be implemented, as needed (see previous description for the types of measures). The CDFW may require compensatory mitigation for the loss of roosting habitat, depending on the species present and size of the bat roost. Compensation, if required, shall be determined in consultation with the CDFW and may include constructing, installing, or monitoring suitable replacement habitat on-site or near the project site to ensure it functions as intended.

#### **Mitigation Measure BIO-1c: Nesting Bird Protection**

- To the extent practicable, vegetation and tree removal, structural demolition, and other construction-related activities shall be performed from September 1 through January 31 to avoid the general nesting period for migratory birds protected by the MBTA.
- If construction occurs during migratory bird nesting season (February 1 to August 31), the project applicant shall be responsible for the retention of a qualified biologist with demonstrated nesting bird survey experience to conduct a preconstruction nesting bird survey within 7 days prior to the start of construction in areas that have not been previously

disturbed by project activities or after any construction breaks of 7 days or more. The survey shall be performed in suitable habitat to locate active passerine and raptor species (birds of prey) within 100 and 300 feet, respectively, of the applicable construction phase area.

- If active nests are located during the preconstruction nesting bird surveys, a qualified biologist shall determine if the schedule of construction activities could affect the active nest; if so, the following measures shall apply, as determined by the qualified biologist:
  - If the qualified biologist determines that construction would not affect an active nest, construction may proceed without restriction; however, a qualified biologist shall regularly monitor the nest at a frequency determined appropriate for the surrounding construction activity to confirm that there would be no adverse effect. The frequency of spot check monitoring would be determined on a case-by-case basis, considering the particular construction activity, duration, proximity to the nest, and physical barriers that may screen activity from the nest. The qualified biologist may revise his or her determination at any time during the nesting season, in coordination with the City.
  - If it is determined that construction may affect an active nest, the qualified biologist shall establish a no-disturbance buffer around the nest(s), and all project work shall halt within the buffer to avoid disturbance or destruction until the qualified biologist determines that the nest is no longer active. Typically, buffer distances are no less than 50 feet for passerines and no less than 250 feet for raptors. These are standard buffer distances that State and federal regulators agree on, as it is widely known in the avian community to minimize disturbances to nesting birds. The buffer size, which can vary with different species, shall be based on species' sensitivity to disturbance, planned work activities in the vicinity of the nest, the level of noise or construction disturbance, the line of sight between the nest and the area(s) of disturbance, ambient levels of noise and other disturbances, and topographical or artificial barriers.
  - Modifying nest buffer distances, allowing certain construction activities within the buffer, and/or modifying construction methods in proximity to active nests shall be done at the discretion of the qualified biologist, in compliance with the California Fish and Game Code and other applicable laws.
  - Any work that must occur within established no-disturbance buffers around active nests shall be monitored by a qualified biologist. If adverse effects in response to project work within the buffer are observed that could compromise the nest, work within the no-disturbance buffer(s) shall halt until the nest occupants have fledged.
  - Any birds that begin nesting within the project area and survey buffers amid construction activities are assumed to be habituated to construction-related or similar noise and disturbance levels. Therefore, exclusion zones around nests may be reduced or eliminated in these cases, as determined by the qualified biologist. Work may proceed around these active nests as long as the nests and their occupants are not directly affected.
- Any inactive non-raptor nest on the project site shall be removed by a qualified biologist to deter nesting.

**Impact BIO-2: The project could interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. (Less than Significant with Mitigation)**

There are no wetlands or running waters within the vicinity of the project site; therefore, the project would have no impact on fish movement. The nearest fish habitat is Dry Creek, approximately 0.6 mile northwest of the project site, and Alameda Creek, approximately 1.2 miles south of the project site. Use of the project site by wildlife as a travel corridor is highly unlikely for the following reasons. The project site has approximately 4.7 acres of natural land cover (i.e., annual grassland and ruderal land cover), which covers 18 percent of the project site. The project site is surrounded by dense urban development with high levels of human activity. The project site is not within or adjacent to any known regional wildlife movement corridors or any other sensitive biological areas, as indicated by the USFWS Critical Habitat Portal or the CDFW Biogeographic Information and Observations System.<sup>17,18</sup> Lastly, no natural corridors connect to the site; therefore, the project would have no impact on these resources.

The project does not involve the construction of extensive fences that could impede wildlife movement. The planned 870-foot-long linear paseo (Paseo C) would allow possible wildlife movement through the site in the north-south direction. Any common urban-adapted species that currently move through the project site would continue to be able to do so following project construction. Should non-nesting migratory birds be present on the site when site disturbance occurs, they could readily vacate the site and relocate to other areas. However, as discussed under Impact BIO-1, structures and trees on the project site could provide nesting habitat for native wildlife—specifically, bats and native resident and migratory birds, thereby potentially affecting a native wildlife nursery site. This impact would be significant. Implementation of Mitigation Measures BIO-1b (Bat Protection) and BIO-1c (Nesting Bird Protection) would ensure the protection of nesting and roosting birds and bats, thereby reducing the project's potential to interfere substantially with the movement of any native resident or migratory wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. This impact would be *less than significant with mitigation*.

**Impact BIO-3: The project could conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. (Less than Significant with Mitigation)**

Specifications regarding the protection of burrowing owls are addressed in the DIPSA Specific Plan, Plan Element H: Environmental, Policy and Standards 4. As discussed under Impact BIO-1, there is potential burrowing owl habitat (i.e., grassland and ruderal cover) on the project site. Implementation of Mitigation Measures BIO-1a (Burrowing Owl Protection) would follow this DIPSA Specific Plan policy, thereby ensuring consistency.

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<sup>17</sup> U.S. Fish and Wildlife Service. 2019. Environmental Conservation Online System, Critical Habitat, Threatened and Endangered Species, Online Mapper. Available: <https://fws.maps.arcgis.com/home/webmap/viewer.html?webmap=9d8de5e265ad4fe09893cf75b8dbfb77>. Accessed: March 13, 2020.

<sup>18</sup> California Department of Fish and Wildlife. n.d. Biogeographic Information and Observation System. Version 5.87.09. Available: <https://map.dfg.ca.gov/bios/>. Accessed: March 18, 2020.

Issues regarding the provision of trees in the community are addressed in the Union City Municipal Code,<sup>19</sup> Chapter 12.16, *Trees, Shrubs, and Plants*. It is the intent of the City to limit the removal of significant trees within the City in order to retain as many trees as possible, consistent with the purpose of the Union City Municipal Code and reasonable economic enjoyment of private property.

A tree inventory was performed by ICF at the project site on April 15, 2019 (**Appendix 4.2-1**). A total of 68 trees were documented on the project site, 47 of which are protected under the Union City Municipal Code. The project would require the removal of all 68 trees on the project site because of conflicts with the design of the project. The project plans include the planting of 735 trees,<sup>20</sup> which is substantially more than the 68 trees that would be removed. The species of the trees to be planted would include, but would not be limited to, Skinny Genes English oak, sweet bay standard, and burgundy willow myrtle. The project would also include new landscaping along the perimeter of the site as well as between the proposed buildings. Landscaping would adhere to Chapter 18,112, *Water-Efficient Landscape Ordinance*, of the Union City Municipal Code, and the adopted Landscape Standard Policy Statement.<sup>21</sup> Because the project would be designed in compliance with the Union City Municipal Code and policy statement and no additional local policies or ordinances for protecting biological resources would apply to the project, this impact would be **less than significant**.

## Cumulative Impacts

### **Impact C-BIO-1: The project could result in a cumulatively considerable contribution to significant cumulative biological resources impacts. (Less than Significant with Mitigation)**

The cumulative geographic context for biological resources is the City. The approach to cumulative impacts is described in Section 4, *Environmental Impact Analysis*.

According to the General Plan EIR, future development in the City could result in the destruction of significant ecological resources. Implementation of the General Plan could result in regional impacts on special-status species; riparian, wetland, or other sensitive natural communities; and wildlife movement, resulting in a significant cumulative impact. Regarding the project site, the majority of it is developed with structures or agriculture land cover and the surrounding area is also mostly developed. The project site and surrounding area retain little natural habitat and exhibit a high level of disturbance. However, the project site has the potential to have a significant impact on biological resources, as discussed above, resulting in the potential to have a cumulatively considerable contribution to a cumulative impact. Implementation of Mitigation Measures BIO-1a (Burrowing Owl Protection) would ensure the protection of nesting burrowing owls, which would reduce the project's impact on this special-status species and conflict with local policies or ordinances protecting burrowing owl to a less-than-significant level. Implementation of Mitigation Measures BIO-1b (Bat Protection) and BIO-1c (Nesting Bird Protection) would ensure the protection of

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<sup>19</sup> City of Union City. n.d. *Union City Municipal Code*. Chapter 12.16, Trees, Shrubs, and Plants. Available: [https://qcode.us/codes/unioncity/view.php?topic=12-12\\_16&frames=off](https://qcode.us/codes/unioncity/view.php?topic=12-12_16&frames=off). Accessed: March 5, 2020.

<sup>20</sup> Urban Arena. 2020. *Conceptual Tree Plan*. January 30.

<sup>21</sup> City of Union City. 2012. *Landscape Standards Policy Statement*. Available: <https://www.unioncity.org/DocumentCenter/View/2749/Landscape-Standards-Policy-Statement>. Accessed: August 14, 2020.

nesting and roosting birds and bats, which would reduce the project's impact on residing bat or bird species and impeding the use of native wildlife nursery sites to a less-than-significant level. As discussed in Impact BIO-3, the project would require the removal of all 68 trees on the project site, including 47 protected trees. The project design would adhere to the Union City Municipal Code (Chapter 12.60.170) and Tree Conservation Ordinance. With implementation of Mitigation Measures BIO-1a, BIO-1b, and BIO-C, the project's contribution to cumulative biological resources impacts would be less than cumulatively considerable. Therefore, the cumulative impact would be ***less than significant with mitigation***.



## 4.3 Cultural Resources

This section describes the environmental and regulatory setting for cultural resources. It also describes impacts on cultural resources that would result from implementation of the project and mitigation for significant impacts where feasible and appropriate. This section is based, in part, on the Department of Parks and Recreation (DPR) forms for 700 Decoto Road and the Southern Pacific Railroad (SPRR) spur prepared for the project by ICF (**Appendix 4.3-1**), cultural resources record search results (**Appendix 4.3-2**), and consultation with the Native American Heritage Commission (NAHC) and local Native American groups (**Appendix 4.3-3**).

In response to the Notice of Preparation (NOP), no comments were received that identified concerns with cultural resources.

### 4.3.1 Existing Conditions

#### 4.3.1.1 Environmental Setting

##### Geologic Setting

The project site ranges in elevation from approximately 50 feet above mean sea level (msl) in the western portion of the site to approximately 63 feet above msl in the eastern portion of the site.<sup>1</sup> The project site is located on alluvial plains below the western foothills of Walpert Ridge of the Coast Range Geomorphic Province.<sup>2</sup> Landform analysis indicates the project site is Pleistocene-aged alluvial fan deposits (between 2.5 million and 12,000 years old) at the base of the foothills between the drainages of Dry Creek and Alameda Creek. The areas adjacent to the project site have been identified and mapped as Pleistocene (Qpaf) and Holocene (Qhaf) alluvial fan deposits, and basin fill deposits as (Qhb).<sup>3</sup>

##### Precontact Setting

The precontact cultural chronology for the San Francisco Bay Area was developed through over a century of organized archaeological survey, beginning with N. C. Nelson in 1906 to the present. Since the 1950s, archaeological work in Santa Clara, Alameda, and Contra Costa Counties led to further refinement of the cultural sequence to consist of the Early Holocene (Lower Archaic), Early Period (Middle Archaic), Lower Middle Period (Initial Upper Archaic), Upper Middle Period (Late Upper Archaic), Initial Late Period (Lower Emergent), and Terminal Late Period (Protohistoric Ambiguities).

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<sup>1</sup> ENGeo. 2016. *Phase I Environmental Site Assessment – Zwissig Way Parcels, Union City, California*. April.

<sup>2</sup> California Geological Survey. 2003. *Seismic Hazard Zone Report for the Union City 7.5-minute Quadrangle, Alameda County, California*. Seismic Hazard Zone Report 090; U.S. Geological Survey. 1977. *San Francisco, California, 15-minute Series (1:1:65,500) Topographic Quadrant Map*; U.S. Geological Survey. 1986. *San Francisco, California, 15-minute Series (1:1:65,500) Topographic Quadrant Map*.

<sup>3</sup> Graymer, R. W., D. L. Jones, and E. E. Brabb. 1996. *Preliminary Geologic Map Emphasizing Bedrock Formations in Alameda County, California*. Derived from the Digital Database USGS Map Open-File 96-252, Scale 1:75000.

The Early Holocene (Lower Archaic, calibrated [cal] 8000–3500 B.C.) is characterized by a mobile forager pattern, with the milling slab, handstone, and a variety of large, wide-stemmed and leaf-shaped projectile points, largely composed of local Franciscan chert dominating the assemblage.<sup>4</sup> During the Early Period (Middle Archaic, cal 3500–500 B.C.), several technological and social developments emerged, and new groundstone technology and the first cut shell beads in mortuaries signaled sedentism (living in one place for a period of time), regional symbolic integration, and increased regional trade in the San Francisco Bay Area.<sup>5</sup> The Lower Middle Period (Initial Upper Archaic, cal 500 B.C.–cal A.D. 430) is marked by a “major disruption in symbolic integration systems,”<sup>6</sup> and new bone tools appeared for the first time, including barbless fish spears, elk femur spatula, tubes, and whistles, as did coiled basketry manufacture.<sup>7</sup> The Upper Middle Period (Late Upper Archaic, A.D. cal 430–1050) experienced the abandonment of many sites from the previous period, and single-barbed bone fish spears, ear spools, and large mortars were developed.<sup>8</sup>

Following the Archaic Period, the Initial Late Period (Lower Emergent, A.D. cal 1050–1550) is marked by a new increased level of sedentism, status ascription, and ceremonial integration in lowland central California.<sup>9</sup> Evidence for increased social stratification throughout the San Francisco Bay Area after 1250 A.D. can be found in mortuary practices evidenced by the quality of burial items in high-status burials and cremations.<sup>10</sup> The Terminal Late Period (Protohistoric Ambiguities) is exhibited by changes in artifact types and mortuary objects and toggle harpoons, hopper mortars, plain corner-notched arrow-sized projectile points, clamshell disk beads, magnesite tube beads, and secondary cremation in the North Bay. The hopper mortar, however, did not spread to the South Bay or Central Bay.<sup>11</sup>

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- <sup>4</sup> Hylkema, M. 2002. *Tidal Marsh, Oak Woodlands, and Cultural Florescence in the Southern San Francisco Bay Region*. Jon M. Erlandson and Terry L. Jones (eds.). *Catalysts to Complexity: Late Holocene Societies of the California Coast*, page 235. *Perspectives in California Archaeology* 6, J. E. Arnold, series editor. Institute of Archaeology, University of California, Los Angeles.
- Milliken, R., R. T. Fitzgerald, M. G. Hylkema, T. Origer, R. Groza, R. Wiberg, A. Leventhal, D. Bieling, A. Gottsfield, D. Gillette, V. Bellefemine, E. Strother, R. Cartier, and D. A. Fredrickson. 2007. *Punctuated Culture Change in the San Francisco Bay Area*. T. L. Jones and K. Klar (eds.), *California Prehistory: Colonization, Culture, and Complexity*, page 114. Walnut Creek, CA: Altamira Press.
- <sup>5</sup> Vellanoweth, R. L. 2001. AMS Radiocarbon Dating and Shell Bead Chronologies: Middle Holocene Trade and Interaction in Western North America. In *Journal of Archaeological Science* 28:941–950.
- <sup>6</sup> Milliken, R., et al. 2007. *Punctuated Culture Change in the San Francisco Bay Area*. In *California Prehistory: Colonization, Culture, and Complexity*, page 115. T. L. Jones and K. Klar (eds.). Altamira Press, Walnut Creek, CA.
- <sup>7</sup> Bennyhoff, J. 1986. The Emeryville Site, Viewed 93 Years Later, page 70. In *Symposium: A New Look at Some Old Sites*. G. S. Breschini and T. Haversat (eds.). Archives of California Prehistory 6. Coyote Press, Salinas, CA; Bieling, D. G. 1998. *Archaeological Investigations at CA-MRN-254, the Dominican College Site, San Rafael, Marin County, California*, page 218. Holman and Associates, San Francisco, CA. Submitted to Dominican College, San Rafael, and Davidon Homes, Walnut Creek, CA.
- <sup>8</sup> Milliken, R., et al. 2007. *Punctuated Culture Change in the San Francisco Bay Area*, page 116. In *California Prehistory: Colonization, Culture, and Complexity*. T. L. Jones and K. Klar (eds.). Altamira Press, Walnut Creek, CA.
- <sup>9</sup> Fredrickson, D. A. 1973. *Early Cultures of the North Coast Ranges, California*. Ph.D. dissertation. Department of Anthropology, University of California, Davis.
- <sup>10</sup> Fredrickson, D. 1984. The North Coastal Region. In *California Archaeology*, pages 471–528. M. Moratto (ed.). Academic Press, Orlando, FL.
- <sup>11</sup> Bennyhoff, J. 1994b. Central California, Augustine: Implications for Northern California Archaeology, page 54. In *Toward a New Taxonomic Framework for Central California Archaeology: Essays by James A. Bennyhoff and David A. Fredrickson*. R. E. Hughes (ed.), Contributions of the University of California Archaeological Research Facility 52. Berkeley, CA.; Wickstrom, B. P. 1986. *An Archaeological Investigation of Prehistoric Sites CA-SON-1250 and CA-SON-1251, Southern Sonoma County, California*. Master’s thesis, Department of Anthropology, Sonoma State University, Sonoma, Rohnert Park.

## Ethnographic Setting

The project site passes through the tribal territory of the Ohlone as it crosses through eastern Alameda County. The Ohlone are a linguistically defined group, composed of several autonomous tribelets that spoke eight different but related languages. The Ohlone languages, together with Miwok, compose the Utian language family of the Penutian stock. The territory of the Ohlone people extended along the coast from the Golden Gate to just below Carmel and as far inland as 60 miles, encompassing several inland valleys.<sup>12</sup>

The vicinity of the project site was inhabited by Ohlone people who spoke the Chochenyo dialect, whose territory encompassed the east shore of San Francisco Bay, the southeast shore of San Pablo Bay, and the interior Livermore Valley of the East Bay.<sup>13</sup>

The Ohlone were primarily hunters and gatherers. They hunted terrestrial game, such as mule deer, tule elk, pronged antelope, and mountain lion. Traps were set for smaller game, such as rabbit and quail. Marine resources were hunted along the shores, including sea lions and whales, which were prized for their blubber. Water fowl were a very important part of the tribal diet and were trapped along the tidal marshes. Other marine resources, such as salmon, steelhead, school fish, and shellfish, including mussels, were collected and were a major dietary staple. Tule boats were used to collect both saltwater and freshwater marine resources.

The Ohlone also used a wide range of other foods, including various seeds (the growth of which was promoted by controlled burning), buckeye, berries, roots, acorns, nuts, fruits, land and sea mammals, water fowl, reptiles, and insects. The Ohlone used tule balsas for watercraft, bows and arrows, cordage, and bone and ground-stone tools to procure and process their foodstuffs.<sup>14</sup>

The Ohlone were politically organized by tribelet, with each having a designated territory. A territory consisted of one or more villages and camps designated by physiographic features. Each tribelet consisted of several households, which averaged 10 to 15 individuals and were grouped into clans and moieties. Primary sources describe tribelets as small groups of people, averaging 60 to 90 individuals, that were located 3 to 5 miles apart. These groups within a territory were often linked by marriage. The office of tribelet chief, which was inherited patrilineally, could be occupied by a man or a woman. If there was no son to inherit the position, a sister or daughter would assume the position. Duties of the chief included providing for visitors, directing ceremonial activities, and leading fishing, hunting, gathering, and warfare expeditions. The chief served as the leader of a council of elders, which functioned primarily in an advisory capacity to the community.

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<sup>12</sup> Levy, R. 1978. Costanoan. In *California*, pages 485–486. Handbook of North American Indians, Volume 8. R. F. Heizer (ed.). Smithsonian Institution, R. F. Heizer (ed.).

<sup>13</sup> Milliken, Randall, Laurence H. Shoup, and Beverly R. Ortiz. 2009. *Ohlone/Costanoan Indians of the San Francisco Peninsula and their Neighbors, Yesterday and Today*, page 4. Prepared for the National Park Service. San Francisco, CA.

<sup>14</sup> Levy, R. 1978. Costanoan. In *California*, pages 491–493. Handbook of North American Indians, Volume 8. R. F. Heizer (ed.). Smithsonian Institution, Washington, D.C.; Milliken, R. T. 1995. *A Time of Little Choice: The Disintegration of Tribal Culture in the San Francisco Bay Area, 1769–1810*, page 20. Ballena Press, Menlo Park, CA; Milliken, Randall T. 1991. *An Ethnohistory of the Indian People of the San Francisco Bay Area from 1770 to 1810*, page 31. Ph.D. dissertation, Department of Anthropology, University of California, Berkeley; Kroeber, A. L. 1925. *Handbook of the Indians of California*, page 467. Bureau of American Ethnology Bulletin 78. Smithsonian Institution, Washington, D.C. (Reprinted by Dover Publications, New York, 1976.

As stated above, a single tribelet, comprising patrilineal family groups, would occupy a village location at different times of the year. Ohlone villages in the Late Period of the Late Holocene typically had four types of structures. Dwellings were generally domed structures with central hearths. They were thatched with tule, grass, or other vegetal material and bound with willow withes. Permanent settlements were usually placed away from the ocean shore, on high ground. Sweathouses were used by men and women and usually located along streambanks. A sweathouse consisted of a pit that was excavated into the streambank, with a thatched portion constructed against the bank. Dance structures were circular or oval in plan and enclosed by a woven fence of brush or laurel branches, standing approximately 5 feet. These structures would have one doorway, with a smaller opening directly opposite. The assembly house was a thatched dome structure that was large enough to accommodate all the inhabitants of the village.<sup>15</sup>

On November 4, 1769, a Spanish expedition, led by Gaspàr de Portolà, crossed the Coast Ranges on its way north from Monterey. This party encountered the first group of native Bay Area peoples at the village of Ssalson (near modern day San Mateo). According to Juan de Crespi, a diarist, this meeting was amicable, and the people of Ssalson took them into their village and feasted with them.<sup>16</sup>

Seven Spanish missions were founded in Ohlone territory from 1776 to 1797. Mission San José, located 7.5 miles southeast of Union City, was established in 1797.<sup>17</sup> Once native Bay people were converted to Christianity and inducted into mission life, they were not permitted to leave. If newly baptized Native Americans, or neophytes, decided they wanted to return to their old way of life, they were considered runaways. Runaways were tracked down and forcibly returned to the missions. The Ohlone were not the only tribal group who were forced into the mission system, the Ohlone commingled with other groups, including the Esselen, Yokuts, Miwok, and Patwin. Mission life was devastating to the Ohlone population.<sup>18</sup> It has been estimated that, in 1777, when the first mission was established in Ohlone territory, the Native American population numbered around 10,000. It declined rapidly to less than 2,000 by 1832 as a result of introduced disease, harsh living conditions, and reduced birth rates.<sup>19</sup>

Under the Mexican government, secularization of the mission lands began in earnest in 1834. The indigenous population scattered away from the mission centers, and the few that were given rancherias from the mission lands were ill equipped to maintain or work their land. Most of the former mission land was divided among loyal Mexican subjects, and the Ohlone who chose to remain in their ancestral territory usually became squatters. Some were given jobs as manual laborers or domestic servants on Mexican ranchos or, later, American cattle ranches. During the next

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<sup>15</sup> Crespi, J. 1927. *Fray Juan Crespi: Missionary Explorer on the Pacific Coast, 1769–1774*. H. E. Bolton, editor and translator. University of California Press, Berkeley, CA. (Reprinted: AMS Press, New York, 1971).

<sup>16</sup> Milliken, R. T. 1995. *A Time of Little Choice: The Disintegration of Tribal Culture in the San Francisco Bay Area, 1769–1810*, page 32. Ballena Press, Menlo Park, CA.

<sup>17</sup> Bevk, Alexandra. 2015. *P-01-011664, 33709 Mission Boulevard, Union City*. State of California – The Resource Agency, Department of Parks and Recreation 523A, 523B, and 523L Forms. November 3; Brunzell, Kara. 2016. *Santos Family Property*. State of California – The Resource Agency, Department of Parks and Recreation 523D Form. August 3; Panich, Lee M., Rebecca Allen, and Andrew Galvan. 2018. The Archaeology of Native American Persistence at Mission San José. In *Journal of California and Great Basin Anthropology* 38(1):11–29.

<sup>18</sup> Milliken, R. T. 1995. *A Time of Little Choice: The Disintegration of Tribal Culture in the San Francisco Bay Area, 1769–1810*. Ballena Press, Menlo Park, CA.

<sup>19</sup> Cook, S. F. 1943a. The Conflict between the California Indians and White Civilization, I: The Indian Versus the Spanish Mission. In *Ibero-Americana* 21. Berkeley, CA; Cook, S. F. 1943b. The Conflict between the California Indians and White Civilization, II: The Physical and Demographic Reaction of the Non-mission Indians in Colonial and Provincial California. In *Ibero-Americana* 22. Berkeley, CA.

few decades, there was a partial return to aboriginal religious practices, particularly shamanism, and some return to food collection as a means of subsistence.<sup>20</sup> Consequently, several multi-ethnic Indian communities (consisting of individuals of Chochenyo Ohlone, Plains Miwok, Northern Valley Yokuts, Patwin, and/or Coast Miwok descent) were established in the mid-nineteenth century within Ohlone territory.<sup>21</sup>

Although they have yet to receive formal recognition from the federal government, the Ohlone are becoming increasingly organized as a political unit and have developed an active interest in preserving their ancestral heritage. In the latter part of the twentieth century, the Galvan family of Mission San José worked closely with the American Indian Historical Society and successfully prevented destruction of a mission cemetery that lay in the path of a proposed freeway. These descendants incorporated as the Ohlone Indian Tribe and now hold title to the Ohlone Indian Cemetery in Fremont.<sup>22</sup> The descendants are active in maintaining their traditions and advocating for Native American issues.

## Historic Setting

### Union City

Land at Mission San José, as well as in the surrounding area, attracted settlers because of its agricultural promise.<sup>23</sup> In 1846, John Horner arrived, along with fellow Mormon farmers, at the location of present-day Union City. His involvement with the land led to further settlement in the area. For example, he opened a general store in a vacant building at Mission San José where he served the community by selling produce and built wharves and warehouses on Alameda Creek for shipping agricultural goods. Horner was able to settle the land because of the Mexican-American War, beginning in 1846 and ending with the signing of the Treaty of Guadalupe Hidalgo in 1848 and Mexico relinquishing California to the United States.

According to the *City of Union City 2040 General Plan* (General Plan), in 1851, Horner set out to establish a town grid at the approximate location of today's Union City Boulevard, Smith Street, and Alvarado Boulevard. Together with his brother William, Horner put Union City on the map, so to speak, by laying out eight square blocks on the south side of the creek. The name Union City referred to Horner's steamship, *The Union*, which he purchased for transporting agricultural products and passengers between Union City and San Francisco.<sup>24</sup> Following the 1850s, Union City quickly developed commercial businesses, including a saloon, several boarding houses and hotels, and factories.<sup>25</sup>

<sup>20</sup> Harrington, J. P. 1921. *Chochenyo Fieldnotes*. Manuscript in Survey of California Indian Languages, Department of Linguistics, University of California, Berkeley; Levy, R. 1978. Costanoan. In *California*, pages 486 and 487. Handbook of North American Indians, Volume 8. R. F. Heizer (ed.). Smithsonian Institution, Washington, D.C.

<sup>21</sup> Levy, R. 1978. Costanoan. In *California*, page 487. Handbook of North American Indians, Volume 8. R. F. Heizer (ed.). Smithsonian Institution, Washington, D.C.

<sup>22</sup> Yamane, Linda G. 1994. Costanoan/Ohlone. In *Native America in the Twentieth Century: An Encyclopedia*, pages 143 and 144. Mary B. David (ed.). Garland Publishing, Inc., New York and London; Bean, L. J. 1994. *The Ohlone: Past and Present*, page xxiv. Ballena Press Anthropological Papers No. 42. Ballena Press, Menlo Park, CA.

<sup>23</sup> Brunzell, Kara. 2016. *Santos Family Property*, page 1. State of California – The Resource Agency, Department of Parks and Recreation 523D Form. August 3.

<sup>24</sup> Ibid.

<sup>25</sup> Bevk, Alexandra. 2015. *P-01-011664, 33709 Mission Boulevard, Union City*, page 2. State of California – The Resource Agency, Department of Parks and Recreation 523A, 523B, and 523L Forms. November 3

Adjacent towns in the immediate area were settled shortly after Horner arrived. In December 1850, Henry Smith established the town of New Haven (approximately 0.5 mile east of Union City), which was named after Smith's hometown in Connecticut. At some point around the mid-1800s, the towns of Union City and New Haven merged and became known as Alvarado.<sup>26</sup> Although Horner founded Union City, he is also attributed to be Alvarado's founder.

Decoto, north of Union City, was established by French Canadian Ezra de Coteau (anglicized to Decoto), who moved to California for the Gold Rush.<sup>27</sup> Decoto and his two brothers purchased 334 acres of land in 1867 because of railroad speculation. Once the Central Pacific Railroad right-of-way was confirmed, Decoto and brothers sold their land to the Decoto Land Company and settled the land bound by Whipple Road (north), Mission Boulevard and Decoto Road (east), and the railroad right-of-way (west and south).<sup>28</sup> On June 11, 1870, the Decoto Land Company filed for incorporation in Alameda County, even though the land had yet to be surveyed and few structures had been built. In preparation for development within the town, nearly 30,000 evergreen trees were planted. Shortly thereafter, Decoto's railroad station was built, and a hotel and warehouses eventually developed around the station. The SPRR is first visible on historic maps in 1881, which shows tracks passing through the former Decoto community. However, Decoto maintained its rural roots and remained mostly undeveloped or used for agricultural purposes, with few residential developments outside the City center for most of its early years. Local produce growers resided close to railroad lines, prompting two canneries to open early in Decoto's history. One of Decoto's largest employers, the Pacific States Steel factory, began operation in 1937. Early Decoto settlers were primarily Portuguese, with a later influx of Mexican immigrants through the 1930s and 1940s.<sup>29</sup>

The cities of Hayward (north of Union City) and Fremont (south of Union City) began to expand in the post-World War II era. During the 1950s, adjacent cities considered annexing the area spanning both Alvarado and Decoto, but locals stunted any plans.<sup>30</sup> In 1959, Alvarado and Decoto, both of which were still mostly rural, incorporated together and became known as Union City, with a population of approximately 6,000.<sup>31</sup>

After incorporation, Union City maintained the Alvarado and Decoto boundaries and street grid patterns from their original settlement days in the mid-1800s. According to the General Plan, Union City's Historic Alvarado District continues to maintain multiple buildings dating from between 1880 and 1930. The area containing the project site, immediately south of Decoto Road, just outside the original Decoto settlement, transformed from agricultural use in the middle of the twentieth century into a commercial and industrial area and became known as the Decoto Industrial Park. Following the closure of the canneries by the early 1960s and the Pacific States

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<sup>26</sup> Blair Prentice, Harris & Associates. 1989. *Design Guidelines for Old Alvarado*, page 1. Prepared for the Union City Planning Department.

<sup>27</sup> Bevk, Alexandra. 2015. *P-01-011664, 33709 Mission Boulevard, Union City*, page 2. State of California – The Resource Agency, Department of Parks and Recreation 523A, 523B, and 523L Forms. November 3.

<sup>28</sup> City of Union City. 2019. *City of Union City 2040 General Plan. Chapter 9, Special Areas*, page 323. Draft. June.

<sup>29</sup> Bevk, Alexandra. 2015. *P-01-011664, 33709 Mission Boulevard, Union City*, pages 2 and 3. State of California – The Resource Agency, Department of Parks and Recreation 523A, 523B, and 523L Forms. November 3.

<sup>30</sup> Brunzell, Kara. 2016. *Santos Family Property*, page 3. State of California – The Resource Agency, Department of Parks and Recreation 523D Form. August 3.

<sup>31</sup> Ibid.

Steel factory in 1978, the Decoto Industrial Park area became a prime location for redevelopment speculation from the late 1980s to the 1990s.<sup>32</sup> By the early 2000s, the Pacific States Steel factory was developed into housing. The Core Station District area (part of the Decoto Industrial Park Study Area [DIPSA]) continues to develop as part of the Station District Residential/Mixed Use Project, a transit-oriented development project adjacent to Union City's Bay Area Rapid Transit station.<sup>33</sup>

## Railroad

Collis Potter Huntington, Mark Hopkins, Leland Stanford, and Charles Crocker, collectively known as the Big Four, are known for completing the Central Pacific Railroad in 1869, which ran from California to Utah. In 1861, the Big Four established a branch line of the Central Pacific that ran from San Francisco to San Diego. This was known as the SPRR. By 1877, the SPRR extended to Arizona. By 1883, the SPRR connected to existing railroads that ran through New Mexico and Texas, terminating in New Orleans. This cross-continental railroad web was known collectively as the Central Pacific system. Between 1884 and 1885, the SPRR incorporated and absorbed the Central Pacific Railroad by leasing its infrastructure.<sup>34</sup>

Although SPRR's tracks spanned Alameda County, SPRR also developed a high number of local railroad spurs within cities. A railroad spur is defined as a "short sidetrack built to access an individual industrial facility, warehouse, or another property."<sup>35</sup> In the early 1900s, the SPRR, Santa Fe Railroad, and Western Pacific Railroad maintained a stiff rivalry to gain railroad spur rights-of-way, both for the sake of expanding infrastructure and for blocking competing railroad companies' ownership. As early as 1910 and continuing through the 1920s, railroad companies, including SPRR, constructed warehouses along the ports in San Francisco and around San Francisco Bay for their rail infrastructure. These warehouses often included rail spurs that branched off from the main lines and terminated within a property's boundary. Warehouses that included SPRR spurs continued to be developed in the San Francisco Bay Area through the middle of the twentieth century.<sup>36</sup>

The twentieth century, especially the 1920s, is considered a major period of expansion and growth for SPRR. The conglomerate spent approximately \$76 million on various projects in the western United States and Mexico in the 1920s alone.<sup>37</sup> By 1996, Union Pacific Railroad (UPRR) acquired SPRR's tracks in Union City and the greater San Francisco Bay Area. Due in part to the acquisition, the spur that intersects with the project site is called the Niles subdivision UPRR. The

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<sup>32</sup> Bevk, Alexandra. 2015. *P-01-011664, 33709 Mission Boulevard, Union City*, page 3. State of California – The Resource Agency, Department of Parks and Recreation 523A, 523B, and 523L Forms. November 3; Heinisch, Lynn. 1994. *Lawsuit Complicates Development Plan*. December 13. Unknown newspaper source. Article obtained from the Union City Historical Museum. Accessed: October 10, 2019.

<sup>33</sup> Jordan, Melissa. 2017. *Union City Station Transit-Oriented Development Project Hits a Milestone*. Bay Area Rapid Transit. Available: <https://www.bart.gov/news/articles/2017/news20170505>. Accessed: October 15, 2019.

<sup>34</sup> Encyclopedia Britannica, 2020. *Southern Pacific Railroad*. Available: <https://www.britannica.com/topic/Southern-Pacific-Railroad>. Accessed: February 17, 2020.

<sup>35</sup> Ver Planck Historic Preservation Consulting. 2018. *San Francisco Street-Level Railroad Tracks Historical Study*. Final. February 16. Prepared for San Francisco Public Works.

<sup>36</sup> *Ibid.*, 28.

<sup>37</sup> JRP. 2019. *Southern Pacific Railroad, San Francisco to Gilroy DPRs for the FJ HSR*, page 2. California High-Speed Rail Historical Architectural Survey Report: San Francisco to San José.

name refers to the former town of Niles—an area located south of the project site in Fremont, California. The town of Niles was first established in 1850 and its railroad depot was later built in 1901. By 1956, Niles was incorporated into the City of Fremont.<sup>38</sup>

### Project Site

The approximately 26.5-acre project site is bounded by Decoto Road, 7th Street, Bradford Way, and the Niles subdivision Union Pacific Railroad (UPRR) tracks. The project site is occupied by existing and vacant industrial uses, surface parking, and an agricultural field. The project site consists of six parcels, three of which include industrial buildings and structures and a decommissioned railroad spur (formerly SPRR) to the southwest, south, and southeast; two parcels each contain one commercial/industrial building to the southeast; and a sixth parcel contains agricultural uses to the south and west. The single vacant parcel and the two parcels containing the commercial/industrial buildings (constructed circa 1985 and 1986) do not contain any buildings or structures more than 50 years in age and are not evaluated in the DPR forms included in **Appendix 4.3-1** or discussed in further detail in this section. In addition, none of the parcels within the project site are included within the Union City Landmark and Historic Preservation Overlay (LHP) Zone Designation overlay, or within an LHP overlay Historic District, or listed in the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR). However, three parcels within the project site contain age-eligible resources that have been evaluated for historical significance in **Appendix 4.3-1** and described below:

- 700 Decoto Road (APN 87-21-5-2), includes a former industrial facility that manufactured and distributed a variety of gases, which sits on a large, irregularly shaped parcel, located immediately south of Decoto Road and west of 7<sup>th</sup> Street (known collectively as 700 Decoto Road);
- The Niles subdivision UPRR spur (formerly a SPRR spur) that forms a Y-shaped parcel with multiple spur branches (APN 87-21-13-2), located west of 7<sup>th</sup> Street and south of 700 Decoto Road; and
- An irregularly shaped parcel containing additional decommissioned spur track (APN 87-23-10), west of the Y-shaped parcel.

An 1881 map shows the extant main railroad line, which is west of the project site, passing through the former Decoto community. A 1946 historic aerial map shows that the project site and surrounding land was vacant, with the exception of a few buildings north of Decoto Road, the railroad tracks west of the project site, and the Pacific States Steel factory to the southwest.<sup>39</sup> By 1958, the project site and adjacent land to the south remained undeveloped; however, the land west of the project site had begun to develop.<sup>40</sup>

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<sup>38</sup> Niles Depot Historical Foundation, Inc., and Tri-City Society of Model Engineers, Inc. 2020. *History of the Niles Passenger Depot*. Available: <https://nilesdepot.org/niles/history.html>. Accessed: May 14, 2020; Niles.org. 2020. *Niles Main Street*. Available: <http://www.niles.org/about/>. Accessed: May 14, 2020.

<sup>39</sup> Nationwide Environmental Title Research, LLC. 1946–2005. *Aerial Photograph: 700 Decoto Road, Union City, CA*. Historic Aerials Viewer. Available: <https://www.historicaerials.com/viewer>. Accessed: September 10, 2019.

<sup>40</sup> Ibid.



Site plans reveal that 700 Decoto Road was designed in 1966 by the firm Zimmerman, Evans & Leopold for the Air Liquide gas company and included the following buildings and structures: an administrative office building (built in 1968–1969); an industrial compressed gas plant (built in 1968); another industrial air separation plant/compressor house (built 1968; expanded c. 1979); and a branch of the railroad spur (c. 1968). The office and administration building represents a stylized Late Modern design with an accentuated mansard roof, designed by architect Paul Wilson Bosholm in 1969, while I.C. Scherer of the California Nursery Company provided the landscape design for the office building.<sup>41</sup> Both the industrial compressed gas plant building and air separation plant/compressor house are utilitarian in design. Construction of the industrial plant began in 1968 in the Decoto Industrial Park area.<sup>42</sup>

By 1968, the railroad spur's other small branch is first visible in historic aerials.<sup>43</sup> Additional site history specific to the SPRR spur is presented in the SPRR Linear Feature Record in **Appendix 4.3-1**.<sup>44</sup> By 1979, the air separation plant/compressor house near the western property line of the industrial plant was expanded; a large third tank on the property appeared east of the air separation plant/compressor house.<sup>45</sup>

Because APNs 87-21-5-2, 87-21-13-2, and 87-23-10 contain age-eligible buildings and structures, they were recorded in the DPR forms included in **Appendix 4.3-1** and evaluated for potential significance as cultural resources. The existing buildings and structures within APNs 87-21-5-2, 87-21-13-2, and 87-23-10 and their build dates are listed in Tables 4.3-1, 4.3-2, and 4.3-3.

### 4.3.1.2 Regulatory Setting

#### Federal

##### National Historic Preservation Act, Section 106

The National Historic Preservation Act (NHPA) establishes the National Register of Historic Places (NRHP), and defines federal criteria for determining the historical significance of archaeological sites, historic buildings, and other resources. To be determined eligible for the NRHP, a potential historic property must meet one of four historical significance criteria, and must also possess sufficient deposition, and architectural or historic integrity to retain the ability to convey the resource's historic significance. Resources determined to meet these criteria are eligible for listing in the NRHP and are termed historic properties. A resource may be eligible at the local, State, or national level of significance.

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<sup>41</sup> City of Union City. 1966–1986. *Building Division Site Plans* (various site plans issued for the subject parcel).

<sup>42</sup> City of Union City. 1966–1986. *Building Division Site Plans* (various site plans issued for the subject parcel); ParcelQuest. 2019. *700 Decoto Road, Union City, CA 94587-3513*. Available: <https://www.parcelquest.com/>. Accessed: October 22, 2019; Nationwide Environmental Title Research, LLC. 1946–2005. *Aerial Photograph: 700 Decoto Road, Union City, CA*. Historic Aerials Viewer. Available: <https://www.historicaerials.com/viewer>. Accessed: September 10, 2019.

<sup>43</sup> Nationwide Environmental Title Research, LLC. 1946–2005. *Aerial Photograph: 700 Decoto Road, Union City, CA*. Historic Aerials Viewer. Available: <https://www.historicaerials.com/viewer>. Accessed: September 10, 2019.

<sup>44</sup> The DPRs prepared for the project site (see Appendix 4.3-1) refer to the existing Niles subdivision Union Pacific Railroad (UPRR) tracks and spur as the Southern Pacific Railroad (SPRR) tracks and spur.

<sup>45</sup> Nationwide Environmental Title Research, LLC. 1946–2005. *Aerial Photograph: 700 Decoto Road, Union City, CA*. Historic Aerials Viewer. Available: <https://www.historicaerials.com/viewer>. Accessed: September 10, 2019.

**Table 4.3-1, Existing Buildings and Structures at 700 Decoto Road (APN 87-21-5-2)**

<b>Building/Structure Name</b>	<b>Build Date</b>
Administrative office building	1968-1969
Compressed gas plant building	1968
Air separation plant/compressor house building	Partial 1968; expanded c. 1979
Shed	c. 1988
Trailer building	c. 1988
Canopy	c. 1988
Three large liquid storage tanks with deuterium (D <sub>2</sub> ), nitrogen (N <sub>2</sub> ), and argon (Ar)	Two tanks from 1968; third tank c. 1979
Concrete masonry block wall with attached light meters and pipes (unknown use)	Unknown (potentially c. 1979)
Scale house	1968
Pipes, equipment, and a metal structure associated with the site's liquid storage area	c. 1979-2009
Five storage tanks (some of which store calcium hydroxide)	c. 1993-2002
Cooling tower	c. 1986
Maintenance shop	c. 1979
PG&E substation and ACI substation	Most likely 1968
Boiler and cooling tower	Most likely 1968
Branch of railroad spur	Most likely 1968

PG&E = Pacific Gas & Electric Company; ACI = Alameda County Industries

**Table 4.3-2. Existing Niles Subdivision UPRR Spur at APN 87-21-13-2**

<b>Building/Structure Name</b>	<b>Build Date</b>
UPRR Spur	Right-of-way built c. 1965

**Table 4.3-3. Existing Additional UPRR Spur at APN 87-23-10**

<b>Building/Structure Name</b>	<b>Build Date</b>
UPRR Spur	Right-of-way built c. 1965

A property is eligible for the NRHP if it possesses integrity of location, design, setting, materials, workmanship, feeling, and association, and it:

1. Is associated with events that have made a significant contribution to the broad patterns of our history;
2. Is associated with the lives of a person or persons of significance in our past;
3. Embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic value, or represents a significant and distinguishable entity whose components may lack individual distinction; or
4. Has yielded, or may be likely to yield, information important in prehistory or history.

A resource that lacks historic integrity or does not meet one of the NRHP criteria of eligibility is not considered a historic property, and effects on such a resource are not considered significant under the NHPA.

## State

### California Public Resources Code

Archaeological and historical sites are protected pursuant to a wide variety of State policies and regulations, as enumerated under the California Public Resources Code (PRC). Cultural resources are recognized as nonrenewable resources and receive additional protection under the California PRC and the California Environmental Quality Act (CEQA). The following California PRC sections are applicable to the project.

- California PRC Sections 5020–5029.5 continued the former Historical Landmarks Advisory Committee as the State Historical Resources Commission. The commission oversees the administration of the California Register of Historical Resources (CRHR) and is responsible for the designation of State Historical Landmarks and Historical Points of Interest.
- California PRC Sections 5079–5079.65 define the functions and duties of the Office of Historic Preservation (OHP). The OHP is responsible for the administration of federally and State-mandated historic preservation programs in California and the California Heritage Fund.
- California PRC Sections 5097.9–5097.991 provide protection to Native American historical and cultural resources and sacred sites and identify the powers and duties of the NAHC. These sections also require notification to descendants of discoveries of Native American human remains and provide for treatment and disposition of human remains and associated grave goods.

### California Environmental Quality Act

CEQA requires projects to be assessed to determine their potential to affect historical resources. CEQA uses the term historical resources to include buildings, sites, structures, objects, or districts, each of which may have historical, pre-historical, architectural, archaeological, cultural, or scientific importance. If implementation of a project would result in significant effects on historical resources, CEQA states that alternative plans or mitigation measures must be considered; however, only significant historical resources need to be addressed (14 California Code of Regulations [CCR] 15064.5, 15126.4). Therefore, before impacts and mitigation measures can be identified, the significance of historical resources must be determined.

Section 15064.5 also provides a process and procedures for addressing the existence of, or probable likelihood of, Native American human remains, as well as the unexpected discovery of any human remains within the project site. This includes consultations with appropriate Native American tribes (see Section 4.13, *Tribal Cultural Resources*). Therefore, before impacts and mitigation measures can be identified, the significance of historical resources must be determined.

The State CEQA Guidelines define three ways that a property may qualify as a historical resource for the purposes of CEQA review.

1. The resource is listed in or determined eligible for listing in the CRHR.
2. The resource is included in a local register of historical resources, as defined in Section 5020.1[k] of the California PRC or identified as significant in a historical resource survey meeting the requirements of Section 5024.1[g] of the California PRC unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
3. The Lead Agency determines the resource to be significant, as supported by substantial evidence in light of the whole record (CCR, Title 14, Division 6, Chapter 3, Section 15064.5[a]).

The State CEQA Guidelines also establish the criteria for CRHR eligibility as the standard for the significance of historical resources and find that cultural resources that meet the criteria of eligibility for the CRHR are significant historical resources. A historical resource may be eligible for inclusion in the CRHR if it meets any of the following conditions:

- A. The resource is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
- B. The resource is associated with the lives of persons important in our past.
- C. The resource embodies the distinctive characteristics of a type, period, region, or method of construction or represents the work of an important creative individual or possesses high artistic values.
- D. The resource has yielded, or may be likely to yield, information important in prehistory or history.

Properties that are listed in or eligible for listing in the NRHP are considered eligible for listing in the CRHR (PRC Section 5024.1[d][1]) and, thus, are significant historical resources for the purpose of CEQA. Previously unidentified and identified or known cultural resources within the project site will be evaluated per the CRHR criteria (as needed) for eligibility in order to determine if the resource is significant on a State level.

According to CEQA, a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant impact on the environment (14 CCR 15064.5[b]). Under CEQA, a substantial adverse change in the significance of a resource means the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the historical resource would be materially impaired. Actions that would materially impair the significance of a historic resource are any actions that would demolish or adversely alter the physical characteristics that convey the property's historical significance and qualify it for inclusion in the CRHR or in a local register or survey that meet the requirements of PRC Sections 5020.1(k) and 5024.1(g).

Treatment of cultural resources under CEQA requires the evaluation of resources in a project's area of potential affect; assessment of potential impacts on significant or unique resources; and development of mitigation measures for potentially significant impacts, which may include monitoring, combined with data recovery and/or avoidance.

### **California Health and Safety Code**

Under Section 8100 of the California Health and Safety Code, six or more human burials at one location constitute a cemetery. Disturbance of Native American cemeteries is a felony (California Health and Safety Code Section 7052). Section 7050.5 of the California Health and Safety Code requires that construction or excavation be stopped in the vicinity of discovered human remains until the county coroner can determine whether the remains are those of a Native American. If the remains are determined to be Native American, the coroner must then contact the NAHC, which has jurisdiction pursuant to PRC Section 5097.

#### ***Discovery of Human Remains***

With respect to the potential discovery of human remains, Section 7050.5 of the California Health and Safety Code states the following:

- A. Every person who knowingly mutilates or disinters, wantonly disturbs, or willfully removes any human remains in or from any location other than a dedicated cemetery without authority of law is guilty of a misdemeanor, except as provided in Section 5097.99 of the PRC. The provisions of this subdivision shall not apply to any person carrying out an agreement developed pursuant to subdivision (l) of Section 5097.94 of the PRC or to any person authorized to implement Section 5097.98 of the PRC.
- B. In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section 27491 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner, and cause of any death and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the PRC. The coroner shall make his or her determination within 2 working days from the time the person responsible for the excavation, or his or her authorized representative, notifies the coroner of the discovery or recognition of the human remains.
- C. If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the NAHC (California Health and Safety Code Section 7050.5).

Of particular note to historical resources is subsection (c), requiring the coroner to contact the NAHC within 24 hours if discovered human remains are thought potentially to be of Native American origin. After notification, the NAHC will follow the procedures outlined in PRC Section 5097.98, which include notification of most likely descendants, if possible, and

recommendations for treatment of the remains. Also, knowing or willful possession of Native American human remains or artifacts taken from a grave or cairn is a felony under California law (PRC Section 5097.99).

## Local

### City of Union City 2040 General Plan

The General Plan includes the following goals and policies associated with cultural resources:

**Goal RC-4:** To protect, to the extent possible, the City's significant archeological and historical resources.

**Policy RC-4.1: Preserve Public Landmarks.** The City shall encourage the preservation of public landmarks.

**Policy RC-4.2: Support the Preservation and Rehabilitation of Historical Resources.** The City shall support public and private efforts to preserve, rehabilitate, and continue the use of historic structures and sites.

**Policy RC-4.3: Use Appropriate Standards to Evaluate Historical Resources.** The City shall use appropriate federal, State, and local standards in evaluating the significance of historical resources within the City.

**Policy RC-4.4: Incorporate Historical Resources into the Landmark and Historic Preservation Overlay Zone.** The City shall work with property owners to apply the Landmark and Historic Preservation Overlay Zone to properties or buildings of historic significance. The properties or buildings may be those that provide significant examples of architectural styles of the past, are landmarks in the history of architecture, are unique and irreplaceable assets to the City and its neighborhoods, or provide for future generations examples of the physical surroundings in which past generations lived.

**Policy RC-4.5: Support Union City Historical Museum.** The City shall continue to encourage and provide support for the Union City Historical Museum.

**Policy RC-4.6: Protection of Archeological Resources.** The City shall strive to ensure that significant archaeological resources are adequately identified and protected from destruction through avoidance where feasible. In the event that any previously unidentified cultural resources are uncovered during site preparation, excavation, or other construction activity, all such activity shall cease until these resources have been evaluated by a qualified archaeologist (or other qualified specialist as appropriate) and specific measures can be implemented to protect these resources in accordance with Sections 21083.2 and 21084.1 of the California Public Resources Code. Where such resources are Native American, the developer shall prepare the assessment in consultation with appropriate Native America tribe(s).

**Policy RC-4.7: Treatment of Remains.** Consistent with California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097.98, if human remains are encountered, no further disturbance shall occur until the County Coroner has made the necessary findings as to origin. The remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the coroner determines the

remains to be Native American, the NAHC shall be contacted within 24 hours. The NAHC must then immediately identify the “most likely descendant(s)” of receiving notification of the discovery. The most likely descendant(s) shall then make recommendations within 48 hours and engage in consultations concerning the treatment of the remains.

### **Decoto Industrial Park Study Area Specific Plan**

The *Decoto Industrial Park Study Area Specific Plan* (DIPSA Specific Plan) (most recently amended in July 2006) includes the following policies associated with cultural resources:

**Community Design Policy B3:** Retail shopping centers, office areas and mixed use developments should have a strong street presence with pedestrian amenities. Developments may be designed to have buildings clustered around plaza areas and such plazas should be linked to the public street. Retail buildings should have good visibility. All buildings within individual projects should be unified by architectural design, signage, lighting, etc., and, as appropriate, should be in harmony with the design of similar public facilities, structures and signage. Second story level retail shops should be avoided.

**Community Design Policy B6:** Consideration should be given to requiring that special public places be incorporated into each major commercial or office development project. Small plaza or open space areas with public art displays, art galleries in building entries for displays of special art and museum type collections, etc. should be considered. Such features should be used to help reinforce the positive image of the area and heritage of the City.

**Environmental Policy H7:** In the event that subsurface cultural deposits or features are encountered during any development within the DIPSA, work in the immediate vicinity of the find should be halted, a professional archaeologist should be consulted, and an appropriate course of action should be developed which is acceptable to all concerned parties. All such procedures should be conducted in conformance with the cultural resources management requirements of Appendix K of the State CEQA Guidelines.

### **Union City Zoning Ordinance**

The City’s Zoning Ordinance (Chapter 18.106 of the Union City Municipal Code) includes a process for recognizing, preserving, and protecting historical resources as stated in Article II, Landmark and Historic Preservation Overlay (LHP) Zone Designation.<sup>46</sup> Section 18.106.240, Designation Findings, establishes the City’s criteria for the City Council to designate historically significant structures, improvements, natural features, and objects. The City has similar criteria for listing as the CRHR, with the addition of meeting an age requirement and possessing integrity. The City’s criteria consists of historical resources and historic districts that meet one of the following criteria:

- A. It exemplifies or reflects a special element of the City’s cultural, social, economic, political, aesthetic, architectural or natural history and possesses an integrity of location, design, setting, materials, workmanship, feeling and association, and
  - 1. It embodies distinctive characteristics of style, type, period or method of construction, or is a valuable example of the use of indigenous materials or craftsmanship, or

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<sup>46</sup> City of Union City. 2020. *Union City Municipal Code*. Available: <https://qcode.us/codes/unioncity/>. Accessed: March 24, 2020

2. It contributes to the significance of a historic area being a geographically definable area possessing a concentration of historic or scenic properties or thematically related grouping of properties or properties which contribute to each other and are unified aesthetically by plan or physical development, or
  3. It embodies elements of architectural design, detail materials or craftsmanship that represents a significant structural or architectural achievement or innovation, or
  4. It has a unique location or singular physical characteristic or is a view or vista representing an established and familiar visual feature of a neighborhood, community or Union City, or
  5. It is at least 45 years of age;
- B. It is one of the few remaining examples in the City, region, State or nation possessing distinguishing characteristics of an architectural or historical type or specimen;
- C. It is identified with persons or events significant in local, State, or national history.

Under Section 18.106.250, Conformity Required, of the City's Zoning Ordinance, substantial changes to the interior and exterior of publicly owned LHP overlay properties are subject to review. The City Council may impose additional controls to LHP overly historic districts, pertaining to facades, setbacks, and height. Also under Section 18.106.250, persons are prohibited from making significant alterations, as well as construction, demolition, and removal of a locally designated landmark or building within a historic district property that normally requires a City permit without first obtaining approval by the Planning Commission. Lastly, LHP overlay properties shall follow the Secretary of the Interior's Standards for Rehabilitation.

## 4.3.2 Environmental Impacts

This section contains the impact analysis for the proposed project as it relates to cultural resources. The methods used to determine the potential project-related impacts, as well as the thresholds of significance used to conclude whether or not an impact would be significant, are described below. Measures that would mitigate (i.e., avoid, minimize, rectify, eliminate, or compensate for) significant impacts are included within each impact discussion where they have been deemed necessary and appropriate.

### 4.3.2.1 Thresholds of Significance

California Environmental Quality Act (CEQA) Guidelines Appendix G (14 California Code of Regulations [CCR] 15000 et seq.) identifies significance criteria to be considered for determining whether a project could have significant impacts on existing cultural resources. Would the project:

- Cause a substantial adverse change in the significance of an historical resource pursuant to Section 15064.5?
- Cause a substantial adverse change in the significance of an archaeological resource as defined in Section 15064.5?
- Disturb any human remains, including those interred outside of formal cemeteries?



### 4.3.2.2 Methods for Analysis

As described in Section 4, *Environmental Impact Analysis*, subsequent to the drafting of this EIR, the applicant indicated that the residential units associated with proposed project would increase by 10, from 964 to 974 units. As described therein, the analysis presented throughout this EIR adequately accounts for the potential environmental impacts of the 974 new residential units.

The project site was studied to determine whether cultural resources are present and, if so, assess the impacts of the project on those resources. Several methodologies were employed for the purpose of determining the presence of cultural resources.

#### Research Summary

Building permits of the buildings within the project site were reviewed at the City's Building Division, and deed information was sought through obtained tax assessor data and permit/site records. ICF also consulted City directories held by The Maurice Marks Center for Local and California History at the Fremont Main Library. In addition, ICF consulted the Union City Historical Museum and archived newspapers and secondary historical sources online. The information gathered from these research sources informed the DPR evaluation of 700 Decoto Road and the SPRR spur, which is described below.

A review of all previously recorded cultural resources and studies on file at the Northwest Information Center (NWIC) of the California Historical Resources Information System was completed on August 28, 2019. To determine sensitivity for Native American resources within the project site, consultation with the NAHC and local Native American groups was conducted, this analysis is further discussed in Section 4.13, *Tribal Cultural Resources*. Historic aerials, topographic maps, and geologic maps were consulted to determine potential sensitivity with respect to encountering buried archaeological resources within the project site. These efforts are described in the *Precontact Settings* section above.

#### Field Survey

ICF architectural historians surveyed all buildings and the railroad spur at 700 Decoto Road on October 10, 2019. The survey included field verification of buildings within the project site, alterations and additions to the project site, and documentation of the property with photographs and written notes. The methodology for photographic documentation involved recording representative examples of the building designs within the project site, structures in areas at the interior of the site, SPRR spur and tracks, and surface parking areas at the perimeter of the parcel.

Because of the developed nature of the project site, as well as the lack of visible ground surface, no archaeological pedestrian survey was conducted.

#### Historic Architectural Resources

The project site includes five parcels that contain buildings and/or structures and a sixth vacant parcel. Of the five parcels, there are two that each contain one commercial/industrial building that is less than 50 years in age (constructed circa 1985 and 1986) and therefore they are not evaluated in the DPR forms in **Appendix 4.3-1** or discussed in detail in this section. The remaining three parcels with buildings and structures in the project site contain the following age-eligible resources: 1) 700 Decoto Road and associated UPRR spur (APN 87-21-5-2); 2) UPRR spur that forms a Y-shaped

parcel with multiple branches (APN 87-21-13-2); and 3) additional UPRR spur track (APN 87-23-10). These three parcels have not been previously evaluated for eligibility with respect to listing in the CRHR. ICF completed DPR 523A, 523B, and 523E forms (**Appendix 4.3-1**) to record and evaluate the individual eligibility of 700 Decoto Road and UPRR spur under CRHR criteria.<sup>47</sup> The DPR forms document the three parcels with APNs 87-21-5-2, 87-21-13-2, and 87-23-10, which include the property at 700 Decoto Road, railroad spur tracks, and landscaped areas within the project site. The DPR forms conclude that these three parcels are not eligible for listing in the CRHR. A summary of the evaluations for the three parcels (collectively referred to in this section as “700 Decoto Road and the UPRR spur”) under CRHR Criteria 1 through 4 is provided below:

- **Criterion 1 (Events):** 700 Decoto Road and the UPRR spur are not associated with any event(s) of historical significance. The property, which houses the abandoned Air Liquide site, developed within the context of the formerly developed Decoto Industrial Park area in the 1960s. The site is one of over 140 Air Liquide sites in the United States and developed nearly sixty years after the first facility was opened in France. Overall, research did not yield evidence that the property is associated with any events or patterns of events that have historical significance. The property’s UPRR spur with two lines and small branches (one branch leads into the industrial plant property), was built in the mid-1960s under the SPRR. The spur is not related to any significant events associated with development or expansion of the SPRR main line (currently UPRR), which is west of 700 Decoto Road. Therefore, the property at 700 Decoto Road, including the adjacent UPRR spur, is not significant under CRHR Criterion 1.
- **Criterion 2 (Persons):** The property at 700 Decoto Road, including the adjacent UPRR spur, is not associated with any persons of historical significance. None of the known owners of the industrial plant at 700 Decoto Road or occupants of the buildings appear to be important to industrial development in Union City or the Decoto Industrial Park area. Although countless individuals were employed by Air Liquide and other tenants worked within the subject property, no individual would have had a sustained association with the subject property and its buildings to the extent necessary to imbue significance under Criterion 2. Research yielded no evidence that the recorded portion of the UPRR spur has any significant association with the former SPRR main line or significant persons. Therefore, the property at 700 Decoto Road, including the adjacent UPRR spur, is not significant under CRHR Criterion 2.
- **Criterion 3 (Architecture/Design):** 700 Decoto Road and the UPRR spur lacks distinctive architectural character and aesthetic value. The administrative office building exhibits some characteristics of the Late Modern style, however, the style was commonly applied to buildings of this type in the 1960s and the building does not represent a distinctive example. The other buildings and structures within the property at 700 Decoto Road are primarily utilitarian in design. Although some of the buildings reflect elements of certain architectural styles, overall, the site is regarded as an industrial complex that is devoid of a cohesive architectural style. The subject railroad spur does not have significance for its engineering or construction value. The approximately 0.18-mile rail segment consists of commonplace railroad features and serves an industrial complex; it is not considered a major or important spur within the larger UPRR system. Therefore, the property at 700 Decoto Road, including the adjacent UPRR spur, is not significant under CRHR Criterion 3.

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<sup>47</sup> The DPRs prepared for the project site (see Appendix 4.3-1) refer to the existing Niles subdivision Union Pacific Railroad (UPRR) tracks and spur as the Southern Pacific Railroad (SPRR) tracks and spur.

- **Criterion 4 (Information Potential):** 700 Decoto Road and the UPRR spur do not appear to be a source, or likely source, of important historical information not already captured in the historic record and thus is not significant under CRHR Criterion 4.

Based on the evaluation summarized above and in **Appendix 4.3-1**, no resources at project site meet CEQA's definition of a historical resource.

## Archaeological Resources

### Records Search

A review of existing literature at the NWIC on August 28, 2019, identified a total of 15 studies conducted within 0.5 mile of the project site. These studies consist of reconnaissance and evaluation studies for transportation, telecommunication, restoration, and development projects. Of the 15 studies, two cultural resources studies are in areas adjacent to the project site:

- Busby, Colin et al. 2001. Cultural Resources Assessment – McKesson Property, Seventh Street and Decoto Road, Union City, Alameda County (APN 87-21-6 and 87-21-15) (S-25018).
- N. Sikes, et al. 2006. Cultural Resources Final Report of Monitoring and Findings for the Qwest Network Construction Project, State of California (S-33061).

Neither of these studies identified resources within or adjacent to the project site.

Although no previously recorded archaeological resources were identified on the project site, two informally recorded precontact resources were identified within a 0.5-mile radius of the project. These consisted of a ground surface (lithic) scatter of precontact ground stone tool fragments,<sup>48</sup> located north of the project site, and a mixed historic-era "Masonic Widows and Orphans Home trash scatter" with three precontact stone tools, located west of the project site.<sup>49</sup> Neither resource has been formally recorded on DPR 523 forms, nor evaluated for inclusion to the NRHP or CRHR. However, the presence of precontact archaeological sites in the vicinity of the project site heightens the potential for buried archaeological resources in the vicinity of the project area. No built-environment resources were identified on the project site; however, 14 built resources were identified within 0.5 mile of the project site. None of the built resources within the buffer were listed on the NRHP or CRHR. The NWIC record search results are included in **Appendix 4.3-2**.

### Native American Consultation

ICF contacted the NAHC on July 31, 2019, requesting a search of the Sacred Lands File (SLF) and a list of Native American individuals with an affiliation to the geographic region. The NAHC responded on August 8, 2019, stating that a search of the SLF failed to indicate the presence of Native American cultural resources on the project site. The NAHC provided a list of six individuals who may have knowledge of the resources in the area. Letters containing the project description and location were sent to the following individuals on September 19, 2019:

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<sup>48</sup> Patron, Ambro & Belk. 2009. *Informal Resource Record C-1555*. Housed at the Northwest Information Center, Rohnert Park, CA.

<sup>49</sup> Patron. 2008. C-1557 (/H). Information Resource on file at the Northwest Information Center, Rohnert Park, California.

- Monica Arellano, Chairperson – Muwekma Ohlone Indian Tribe of the SF Bay Area
- Tony Cerda, Chairperson – Costanoan Rumsen Carmel Tribe
- Andrew Galvan – The Ohlone Indian Tribe
- Charlene Nijmeh, Chairperson – Muwekma Ohlone Indian Tribe of the SF Bay Area
- Ann Marie Sayers, Chairperson – Indian Canyon Mutsun Band of Costanoan
- Irenne Zwierlein, Chairperson – Amah Mutsun Tribal Band of Mission San Juan Bautista

On October 23, 2019, ICF spoke with Ms. Zwierlein, Ms. Sayers, and Mr. Galvan. Ms. Zwierlein requested that the excavation crew receive sensitivity training and that an archaeologist be present on-site. Ms. Sayers asked who conducted the archaeological survey and if there were recorded resources within vicinity of the project site. ICF confirmed no pedestrian survey was conducted because of the lack of visible ground surface due to the amount of modern development in the project area and that no resources were identified during the records search. On October 1, 2020, a letter was sent to Ms. Zwierlein addressing her concerns regarding project construction, confirming that preconstruction cultural resources sensitivity training would be included as a mitigation measure, and confirming that additional mitigation measures would ensure any inadvertent discoveries are protected. Mr. Galvan had additional questions for an archaeologist. That same day, an ICF archaeologist left a voicemail regarding these additional questions and asked for a call back to discuss. To date, no other responses have been received. The Native American consultation materials are included in **Appendix 4.3-2**.

#### **Desktop-based Geoarchaeological Analysis**

Geoarchaeological analysis evaluated the project site surface and subsurface conditions via various sources, including a summary of regional geology, San Francisco Bay Area historical shoreline data, geotechnical core data collected by ENGEO and Berlogar, Stevens & Associates, and soil data from the National Resources Conservation Service (NRCS).<sup>50</sup>

The project site currently occupied by existing and vacant industrial uses; surface parking lots, asphalt or concrete storage lots, a roadway, and railroad spur improvements; and vacant unpaved areas, including agricultural, annual grassland, landscaped, and ruderal areas. The project site has historically been used for industrial, railroad, and agricultural uses. In the northern and eastern portions of the project site are vacant industrial structures and rail spurs; in the southern and western portions are agricultural lands as well as an improved parking and storage area. The southern and western portions of the project site were not historically developed beyond field clearance for farming and plow zone would typically reach approximately 0 to 1.5 feet below ground surface. Geotechnical reports show seven cores have been placed in the project site, including two core logs reported by ENGEO in 2013 and five core logs reported by Berlogar, Stevens & Associates

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<sup>50</sup> ENGEO. 2013. *Preliminary Geotechnical Exploration: Zwissig Way Development, Union City, California*. (Project No. 9399.001.000.); Berlogar Stevens & Associates. 2017. *Due Diligence Level Geotechnical Investigation: Airgas/Williams Mixed-Use Decoto Road and 7th Street Union City, California*. Prepared for The Union City Project Owner, LLC. (Project No. 3885.100.); U.S. Department of Agriculture, Natural Resources Conservation Service. 2019. *Web Soil Survey*. Soil Survey Staff. Available: <https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>. Accessed: July 10, 2020.

in 2017.<sup>51</sup> Based on the core log data and NRCS soil profile data, soils in the project site have the potential to contain cultural deposits between 0 and 6 feet in depth with a mixture of surface deposits given that soils and subsoils were found to retain integrity in all geotechnical cores placed in the project site.

### 4.3.2.3 Impacts and Mitigation Measures

#### **Impact CUL-1: The project would not cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5. (No Impact)**

The project site includes five APNs that contain buildings and/or structures and a sixth vacant APN. Of the five APNs that contain buildings and/or structures, two contain vacant buildings constructed during the mid-1980s, which are not considered to be historical resources and are not evaluated further in the DPR forms in **Appendix 4.3-1**. The three remaining APNs contain the following resources that are 50 years or older and were evaluated for historical significance:

- 700 Decoto Road and associated UPRR spur (APN 87-21-5-2);
- UPRR spur that forms a Y-shaped parcel with multiple branches (APN 87-21-13-2); and
- Additional UPRR spur track (APN 87-23-10).

700 Decoto Road, a decommissioned industrial facility that was formerly occupied by Air Liquide, is comprised of three buildings and an UPRR spur (APN 87-21-5-2). The DPR for the three parcels (collectively referred to as “700 Decoto Road and the UPRR spur” in this section) included an evaluation of buildings and structures, including the UPRR spur and its branches located on three parcels within the project site (APNs 87-21-5-2, 87-21-13-2, 87-23-10). The DPR concluded that the property does not meet the criteria for listing in the CRHR and thus does not qualify as a historical resource under CEQA. The evaluation of 700 Decoto Road and UPRR spur’s CRHR eligibility is documented on DPR 523A, 523B, and 523E forms included in **Appendix 4.3-1** and summarized under *Methods for Analysis*.<sup>52</sup>

Based on the above analysis, the project site does not contain any historical resources for the purposes of CEQA. As such, demolition of the buildings and associated site elements at the project site and redevelopment of the site under the project would not alter the significance of a historical resource, as defined in Section 15064.5 of the State CEQA Guidelines. Therefore, the project would have **no impact** on historical resources.

#### **Impact CUL-2: The project has the potential to cause a substantial adverse change in the significance of an as-yet-undocumented human remains or archaeological resource as defined in Section 15064.5. (Less than Significant with Mitigation)**

No previously recorded archaeological resources have been identified in the project site and the potential for surface and subsurface precontact and historic-era archaeological resources to be present is low. As described above under *Methods for Analysis*, two informally recorded precontact

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<sup>51</sup> ENGE0. 2013. *Preliminary Geotechnical Exploration: Zwiissig Way Development, Union City, California*. (Project No. 9399.001.000.); Berlogar Stevens & Associates. 2017. *Due Diligence Level Geotechnical Investigation: Airgas/Williams Mixed-Use Decoto Road and 7th Street Union City, California*. Prepared for The Union City Project Owner, LLC. (Project No. 3885.100.)

<sup>52</sup> The DPRs prepared for the project site (**Appendix 4.3-1**) refer to the existing Niles subdivision Union Pacific Railroad (UPRR) tracks and spur as the Southern Pacific Railroad (SPRR) tracks and spur.

resources, a surface lithic scatter and a mixed historic-era and precontact deposit, were identified along the northern and western edges of the 0.5 mile buffer around the project site.<sup>53</sup> In addition, no cemeteries or human burials have been identified within the project site during the NWIC record search or tribal consultation. The project site sits on a Pleistocene landform, which has a low potential for precontact settlement. In the northern and eastern portions of the project site are vacant industrial structures and rail spurs; in the southern and western portions are agricultural fields as well as an improved parking and storage area. While there is the potential for disturbed subsurface archaeological deposits in the plow zone and undisturbed archaeological deposits below the plow-zone, the potential for these historic-era agricultural related resources to be historically significant is also low.

To accommodate utility trenches, the project would excavate to a maximum depth of approximately 13.5 feet below the ground surface. In total, all 26.5 acres of the project site would be disturbed during construction. Even though the potential for cultural resources to be present is low, there remains the possibility that previously unrecorded resources may be present in the project site. If such resources are encountered during the proposed ground disturbing activities during construction, a potentially significant impact would occur. Implementation of Mitigation Measures CUL-2a and CUL-2b would reduce the potential for damaging or destroying as-yet undocumented archaeological resources and human remains, should they be discovered, and this impact would be *less than significant with mitigation*.

#### **Mitigation Measure CUL-2a: Preconstruction Archaeological Sensitivity Training**

Prior to the start of any construction activities, a qualified archaeologist shall conduct a preconstruction archaeological sensitivity training to the excavation crew. This training shall include an overview of what cultural resource are and why they are important, archaeological terms (such as site, feature, deposit), project site history, types of cultural resources likely to be uncovered during excavation, laws that protect cultural resources, and the unanticipated discovery protocol.

#### **Mitigation Measure CUL-2b: Unanticipated Discovery Protocol**

Should an archaeological resource be encountered during project construction activities, the construction contractor shall halt construction within 50 feet of the find and immediately notify the City. Construction activities shall be redirected and a qualified archaeologist, in consultation with the City, shall 1) evaluate the archaeological resource to determine if it meets the CEQA definition of a historical or unique archaeological resource and 2) make recommendations about the treatment of the resource, as warranted. If the resource does meet the CEQA definition of a historical or unique archaeological resource, then it shall be avoided to the extent feasible by project construction activities. If avoidance is not feasible, then adverse effects to the deposit shall be mitigated as specified by CEQA Guidelines Section 15126.4(b) (for historic resources) or Section 21083.2 (for unique archaeological resources). This mitigation may include, but is not limited to, a thorough recording of the resource on Department of Parks and Recreation Form 523 records, or archaeological data recovery excavation. If data recovery excavation is warranted, CEQA Guidelines Section 15126.4

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<sup>53</sup> Patron, Ambro & Belk. 2009. *Informal Resource Record C-1555*. Housed at the Northwest Information Center, Rohnert Park, CA; Patron. 2008. C-1557 (/H). Information Resource on file at the Northwest Information Center, Rohnert Park, California.

(b)(3)(C), which requires a data recovery plan prior to data recovery excavation, shall be followed. If the significant identified resources are unique archaeological resources, mitigation of these resources shall be subject to the limitations on mitigation measures for archaeological resources identified in CEQA Guidelines Sections 21083.2 (c) through 21083.2 (f).

**Impact CUL-3: The project has the potential to disturb human remains, including those interred outside of formal cemeteries. (Less than Significant with Mitigation)**

As discussed under Impact CUL-2, no known archaeological resources are present in the project site. Even though the potential for cultural resources to be present is low, there remains the possibility, that unanticipated deposits, including human remains, could be encountered during project-related ground disturbance. This impact would be significant. Implementation of Mitigation Measure CUL-3 would reduce the potential for damaging or destroying as-yet undocumented human remains, should they be discovered, and this impact would be *less than significant with mitigation*.

**Mitigation Measure CUL-3: Handling of Human Remains**

In the event that any human remains are encountered during construction activities, work within 50 feet of the discovery shall be redirected and the Alameda County Coroner shall be notified immediately. Concurrently, an archaeologist shall be contacted to assess the situation and consult with the appropriate agencies. If the human remains are of Native American origin, the coroner shall notify the NAHC within 24 hours of this identification in accordance with section 5097.98 of the California Public Resources Code, and section 7050.5 of the California Health and Safety Code, as applicable. The NAHC shall identify a most likely descendant to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods.

## **Cumulative Impacts**

**Impact C-CUL-1: The project could result in a cumulatively considerable contribution to significant cumulative cultural resources impacts. (Less than Significant with Mitigation)**

The cumulative geographic context for cultural resources is the City. The approach to cumulative impacts is described in Section 4, *Environmental Impact Analysis*.

According to the General Plan EIR and the DIPSA Specific Plan, development associated with each plans' buildout would result in potentially significant impacts on known and unknown prehistoric archaeological, historic-period archaeological resources, and human remains. As discussed under Impact CUL-1, the project would have no impact on historical resources because there are no historical resources present at the project site. Therefore, the project would not have the potential to contribute to cumulative historical resources impacts. Depending on subsurface conditions, slopes, and other factors, each cumulative project would require different levels of grading, cut-and-fill, and excavation, which could affect unknown precontact cultural resources and human remains. All projects with the potential to affect unknown cultural resources and human remains, including the project, would be required to implement mitigation measures and the General Plan specifications in the analysis chapters related to cultural resources and human remains to reduce impacts to a less-than-significant level. In addition, the cumulative projects, including the project, would be subject to federal, State, and county laws regulating cultural resources and disturbance of human remains. Implementation of

Mitigation Measures CUL-2a (Preconstruction Archaeological Sensitivity Training), CUL-2b (Unanticipated Discovery Protocol), and CUL-3 (Handling of Human Remains) would reduce the project's impact on unknown precontact archaeological resources and human remains to a less-than-significant level. With implementation of Mitigation Measures CUL-2a, CUL-2b, and CUL-3, the project's contribution to cumulative cultural resources impacts would be less than cumulatively considerable. Therefore, the cumulative impact would be ***less than significant with mitigation***.



## 4.4 Energy

This section describes the environmental and regulatory setting for energy. It also describes impacts on energy that would result from implementation of the project and mitigation for significant impacts where feasible and appropriate.

No comments regarding energy were received in response to the Notice of Preparation (NOP).

### 4.4.1 Existing Conditions

#### 4.4.1.1 Environmental Setting

Energy resources in the State of California include natural gas, electricity, water, wind, oil, coal, solar, geothermal, and nuclear resources. Energy production and energy use both result in the depletion of nonrenewable resources, such as oil, natural gas, and coal, and result in the emissions of pollutants.

This section discusses the existing conditions related to energy statewide, regionally, and at the project site.

#### State Energy Resources and Use

California has a diverse portfolio of energy resources that produced 2,536 trillion British thermal units (BTUs)<sup>1</sup> in 2017<sup>2</sup>. Excluding offshore areas, the State ranked fourth in the nation in crude oil production in 2017, producing the equivalent of 996.4 trillion BTUs.<sup>3</sup> The State ranked first in total renewable energy generation, with 1,115.3 trillion BTUs. Other energy sources in the State include natural gas (236.8 trillion BTUs), nuclear (187.2 trillion BTUs), and biofuels (29.8 trillion BTUs).<sup>4,5,6</sup> Additionally, due to the mild Mediterranean climate and strict energy-efficiency conservation requirements, California has lower energy consumption rates than most parts of the United States. According to the U.S. Energy Information Administration, California consumed

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<sup>1</sup> BTUs: 1 BTU is the amount of energy required to heat 1 pound of water by 1 degree Fahrenheit (°F) at sea level. The BTU is a standard unit of measurement for energy used in the United States, and is part of the U.S. Customary System of units (i.e., the foot-pound-second system).

<sup>2</sup> U.S. Energy Information Administration. 2018. *Table P5B—Primary Energy Production Estimates, Renewable and Total Energy, in Trillion Btu, Ranked by State, 2017*. Available: [https://www.eia.gov/state/seds/sep\\_prod/pdf/P5B.pdf](https://www.eia.gov/state/seds/sep_prod/pdf/P5B.pdf). Accessed: March 25, 2020.

<sup>3</sup> U.S. Energy Information Administration. 2018. *Table P5A—Primary Energy Production Estimates, Fossil Fuels and Nuclear Energy, in Trillion Btu, Ranked by State, 2017*. Available: [https://www.eia.gov/state/seds/sep\\_prod/pdf/P5A.pdf](https://www.eia.gov/state/seds/sep_prod/pdf/P5A.pdf). Accessed: March 25, 2020.

<sup>4</sup> No coal production occurs in California.

<sup>5</sup> U.S. Energy Information Administration. 2018. *Table P5B—Primary Energy Production Estimates, Renewable and Total Energy, in Trillion Btu, Ranked by State, 2017*. Available: [https://www.eia.gov/state/seds/sep\\_prod/pdf/P5B.pdf](https://www.eia.gov/state/seds/sep_prod/pdf/P5B.pdf). Accessed: March 25, 2020.

<sup>6</sup> U.S. Energy Information Administration. 2018. *Table P5A—Primary Energy Production Estimates, Fossil Fuels and Nuclear Energy, in Trillion Btu, Ranked by State, 2017*. Available: [https://www.eia.gov/state/seds/sep\\_prod/pdf/P5A.pdf](https://www.eia.gov/state/seds/sep_prod/pdf/P5A.pdf). Accessed: March 25, 2020.

approximately 7,881.3 trillion BTUs of energy in 2017.<sup>7</sup> California's per capita energy consumption of 200 million BTUs is one of the lowest in the country and is ranked 48<sup>th</sup> in the nation as of 2017.<sup>8</sup>

In 2017, natural gas accounted for the majority of energy consumption (2,190.6 trillion BTUs or 28 percent); followed by motor gasoline (1,720.8 trillion BTUs or 22 percent); renewable energy, including nuclear electric power, hydroelectric power, biomass, and other renewables (1,416.8 trillion BTUs or 18 percent); distillate and jet fuel (1,270.3 trillion BTUs or 16 percent); and interstate electricity (659.4 trillion BTUs or 8 percent); with the remaining 8 percent coming from a variety of other sources.<sup>9</sup> Of the natural gas consumed, commercial uses consumed approximately 12 percent, followed by residential uses (21 percent), and industrial uses (37 percent), among many other uses.<sup>10</sup>

In 2017, the transportation sector consumed the highest quantity of energy (3,174.9 trillion BTUs or 40.3 percent), followed by the industrial (1,817.8 trillion BTUs or 23.1 percent), commercial (1,473.1 trillion BTUs or 18.7 percent), and residential (1,415.5 trillion BTUs or 18 percent) sectors.<sup>11</sup>

Per capita energy consumption in general is declining because of improvements in energy efficiency and design. However, despite this reduction in per capita energy use, the State's total overall energy consumption (i.e., non-per capita energy consumption) is expected to increase over the next several decades as a result of growth in population, jobs, and vehicle travel.

## Regional Energy Resources and Use

Pacific Gas and Electric (PG&E) provides natural gas and electricity services to the majority of Northern California, including the City and the project site. PG&E's service extends from Eureka to Bakersfield (i.e., north to south) and from the Sierra Nevada to the Pacific Ocean (i.e., east to west). PG&E purchases gas and power from a variety of sources, including other utility companies. PG&E also obtains energy supplies from power plants and natural gas fields in northern California. PG&E operates a grid distribution system that channels all power produced at the various generation sources into one large energy pool for distribution throughout the service territory. PG&E provides all of the natural gas and electric infrastructure in Alameda County and in Union City. However, East Bay Community Energy (EBCE) provides electricity to customers in Alameda County using PG&E infrastructure unless individuals choose to opt out of the program, at which point, the default electricity provider is PG&E.

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<sup>7</sup> U.S. Energy Information Administration. 2018. *Table C10—Energy Consumption Estimates by End-Use Sector, Ranked by State, 2017*. Available: [https://www.eia.gov/state/seds/sep\\_sum/html/rank\\_use.html](https://www.eia.gov/state/seds/sep_sum/html/rank_use.html). Accessed: March 25, 2020.

<sup>8</sup> U.S. Energy Information Administration. 2018. *Table C13—Energy Consumption Estimates per Capita by End-Use Sector, Ranked by State, 2017*. Available: [https://www.eia.gov/state/seds/data.php?incfile=/state/seds/sep\\_sum/html/rank\\_use\\_capita.html&sid=US](https://www.eia.gov/state/seds/data.php?incfile=/state/seds/sep_sum/html/rank_use_capita.html&sid=US). Accessed: March 25, 2020.

<sup>9</sup> U.S. Energy Information Administration. 2020. *California State Energy Profile*. Available: <https://www.eia.gov/state/print.php?sid=CA>. Accessed: March 27, 2020.

<sup>10</sup> U.S. Energy Information Administration. 2020. *Natural Gas Consumption by End Use—California*. Available: [https://www.eia.gov/dnav/ng/ng\\_cons\\_sum\\_dcu\\_SCA\\_a.htm](https://www.eia.gov/dnav/ng/ng_cons_sum_dcu_SCA_a.htm). Accessed: March 27, 2020.

<sup>11</sup> U.S. Energy Information Administration. 2018. *Table C10—Energy Consumption Estimates by End-Use Sector, Ranked by State, 2017*. Available: [https://www.eia.gov/state/seds/sep\\_sum/html/rank\\_use.html](https://www.eia.gov/state/seds/sep_sum/html/rank_use.html). Accessed: March 25, 2020.

EBCE is Alameda County's official electricity provider, and therefore provides electricity to Union City. EBCE's power comes from a mix of various sources, including solar, wind, geothermal, biomass and biowaste, and hydroelectric generation resources. EBCE delivers power to its customers via existing PG&E utility infrastructure.<sup>12</sup> EBCE allows customers to choose between three different electricity product operations: Bright Choice, which contains at least 38 percent renewable resources and 47 percent carbon-free resources as electricity sources, Brilliant 100, which is at least 40 percent renewable resources and 60 percent carbon-free resources as electricity sources, and Renewable 100, which contains 100 percent renewable resources as electricity sources.<sup>13</sup>

In Alameda County, a total of 379.0 million therms of natural gas were consumed in 2017, which is about 3 percent of the State's total consumption in 2017. In 2017, natural gas in Alameda County was primarily consumed by the residential sector (57 percent), followed by the non-residential sector (43 percent).<sup>14</sup> In 2017, Alameda County consumed a total of 11,106.4 million kilowatts of electricity, which is about 4 percent of the State's total consumption. In the county, electricity was primarily consumed by the non-residential sector (73 percent), followed by the residential sector (27 percent) in 2017.<sup>15</sup> Table 4.4-1 outlines PG&E's power mix in 2017, and EBCE's power mix in 2018,<sup>16</sup> compared to the power mix for the State in 2017.

Table 4.4-2 outlines Union City's electricity and natural gas consumption in 2017.

## Project Site Energy Resources and Use

The project site is occupied by existing and vacant industrial uses, surface parking, and an agricultural field. For the purposes of this analysis, it is conservatively assumed that the existing uses at the project site generate no demand for energy. PG&E provides natural gas to the project site, and EBCE provides electricity using PG&E infrastructure, unless individuals choose to opt out of the EBCE, in which case PG&E provides electricity. All buildings within the project site have existing connections to infrastructure, although the vacant areas do not.

### 4.4.1.2 Regulatory Setting

#### Federal

As discussed in Sections 4.1, *Air Quality*, and 4.6, *Greenhouse Gas Emissions*, of this Draft EIR, the National Highway Traffic Safety Administration (NHTSA) sets the Corporate Average Fuel Economy Standards (CAFÉ) standards to improve average fuel economy (i.e., reduce fuel consumption) and reduce greenhouse gas (GHG) emissions generated by cars and light-duty trucks. NHTSA and the U.S. Environmental Protection Agency (EPA) have proposed to amend the current fuel efficiency standards for passenger cars and light trucks and establish new standards covering model

<sup>12</sup> EBCE charges each of its customers an electric delivery charge for maintenance of PG&E's wires, infrastructure, and delivery of electricity to customers.

<sup>13</sup> East Bay Community Energy (EBCE). 2020. *Power Mix*. Available: <https://ebce.org/power-mix/>. Accessed: April 13, 2020.

<sup>14</sup> California Energy Commission (CEC). n.d. *Gas Consumption by County—Alameda County 2017*. Available: <https://ecdms.energy.ca.gov/gasbycounty.aspx>. Accessed: March 25, 2020.

<sup>15</sup> California Energy Commission (CEC). n.d. *Electricity Consumption by County—Alameda County 2017*. Available: <https://ecdms.energy.ca.gov/elecbycounty.aspx>. Accessed: March 25, 2020.

<sup>16</sup> EBCE initiated service in June 2018; therefore, there are no data about EBCE's power mix in 2017.

**Table 4.4-1. PG&E, EBCE and the State of California Power Mix in 2017 (Percent)**

<b>Energy Resources</b>	<b>PG&amp;E Power Mix<sup>1</sup></b>	<b>EBCE option: Bright Choice<sup>2</sup></b>	<b>EBCE option: Brilliant 100<sup>2</sup></b>	<b>EBCE option: Renewable 100<sup>2</sup></b>	<b>CA Power Mix<sup>1</sup></b>
Eligible Renewable	33	41	45	100	29
<i>Biomass and waste</i>	4	0	0	0	2
<i>Geothermal</i>	5	1	0	0	4
<i>Small hydroelectric</i>	3	0	0	0	3
<i>Solar</i>	13	15	20	50	10
<i>Wind</i>	8	25	25	50	10
Coal	0	0	0	0	4
Large Hydroelectric	18	21	55	0	15
Natural Gas	20	0	0	0	34
Nuclear	27	0	0	0	9
Other	0	0	0	0	<1
Unspecified Sources of Power <sup>a</sup>	2	0	0	0	9
<b>TOTAL</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source:

<sup>1</sup> PG&E. 2018. *Where Your Electricity Comes From*. Available: [https://www.pge.com/pge\\_global/common/pdfs/your-account/your-bill/understand-your-bill/bill-inserts/2018/10-18\\_PowerContent.pdf](https://www.pge.com/pge_global/common/pdfs/your-account/your-bill/understand-your-bill/bill-inserts/2018/10-18_PowerContent.pdf). Accessed: March 25, 2020.

<sup>2</sup> EBCE. 2020. *Power Mix*. Available: <https://ebce.org/power-mix/>. Accessed: April 13, 2020.

Notes:

<sup>a</sup> Electricity from transactions that are not able to be traced to a specific generation source are defined as “Unspecified Sources of Power.”

**Table 4.4-2. Natural Gas and Electricity Consumption in the City of Union City in 2017**

<b>Sample Heading</b>	<b>Per Capita Consumption</b>	<b>Direct Energy Consumption (Per Capita Million BTUs)</b>
Natural Gas	230.22 therms	21,404.3
Electricity	6,749.65 kWh	23,029.8

Source: City of Union City. 2019. *2040 Union City General Plan Update Draft Environmental Impact Report, Chapter 4—Environmental Impact Analysis*. Available: <http://www.uc2040.com/documents/>. Accessed: March 25, 2020.

Notes: MBTUs = million British thermal units; kWh = kilowatt hours

years 2021 through 2026 by maintaining the current model year 2020 standards through 2026 via the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule. California, 22 other states, the District of Columbia, and two cities filed suit against the proposed action on September 20, 2019.<sup>17</sup> The lawsuit requests a “permanent injunction prohibiting Defendants from implementing or relying on the

<sup>17</sup> *California et al. v United States Department of Transportation et al.*, 1:19-cv-02826, U.S. District Court for the District of Columbia.

Preemption Regulation,” but does not stay its implementation during legal deliberations. Part 1 of the SAFE Vehicles Rule went into effect on November 26, 2019. Part 2 of the SAFE Vehicles Rule was finalized on March 30, 2020. The SAFE Vehicles Rule will decrease the stringency of CAFE standards to 1.5 percent each year through model year 2026, as compared with the standards issued in 2012, which would have required about 5 percent annual increases.

## State

### **Assembly Bill 1493, Pavley Rules (2002, amendments 2009)/Advanced Clean Cars (2011)**

Known as Pavley I, Assembly Bill (AB) 1493 provided the nation’s first GHG standards for automobiles. AB 1493 required the California Air Resources Board (CARB) to adopt vehicle standards that would lower GHG emissions from new light-duty vehicles to the maximum extent feasible beginning in 2009. Additionally, in 2012, a strengthening of the Pavley standards (referred to previously as Pavley II and now referred to as the Advanced Clean Cars measures) was adopted for vehicle model years 2017 through 2025. Together, Pavley I and the Advanced Clean Cars measures are expected to increase average fuel economy to roughly 54.5 miles per gallon (mpg) in 2025. This increase in fuel economy would help lower the demand for fossil fuels.

### **Green Building Code and Title 24 Updates**

The California Green Building Standards Code (CALGreen) (proposed Part 11, Title 24) was adopted as part of the California Building Standards Code (24 California Code of Regulations). Part 11 established voluntary standards that became mandatory under the 2010 edition of the code. These involved sustainable site development, energy efficiency (in excess of California Energy Code requirements), water conservation, material conservation, and internal air contaminants. The current energy efficiency standards were adopted in 2019 and took effect on January 1, 2020. Under the 2019 standards, homes built under these standards would use about 53 percent less energy than homes constructed under the 2016 standards, while nonresidential buildings would use about 30 percent less energy. Later standards are expected to require zero net energy for newly constructed commercial buildings.

### **Executive Order B-16-12 (2012)**

Executive Order (EO) B-16-12 orders State entities under the direction of the Governor, including CARB, the CEC, and the California Public Utilities Commission (CPUC), to support the rapid commercialization of zero-emission vehicles. It directs these entities to achieve various benchmarks related to zero-emission vehicles.

### **Senate Bill 350 (2015), Chapter 547, Clean Energy and Pollution Reduction Act of 2015**

Senate Bill (SB) 350 (DeLeon), also known as the Clean Energy and Pollution Reduction Act of 2015, was approved by California legislature in September 2015 and signed by Governor Brown in October 2015. Its key provisions are to require the following by 2030: 1) a Renewable Portfolio Standard<sup>18</sup> (RPS) of 50 percent and 2) to double statewide energy efficiency savings in natural gas

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<sup>18</sup> The RPS is one of California’s key programs for promoting renewable energy use in the State. The program establishes continuous procurement of renewable energy requirements for load-serving entities with the State of California (California Energy Commission 2020).

and electricity end uses. To help meet these provisions, the Clean Energy and Pollution Reduction Act of 2015 requires large utilities to develop and submit integrated resource plans that detail how they will reduce GHG emissions, increase use of clean energy resources, and do so while meeting customer needs.

### **Senate Bill 100—The 100 percent Clean Energy Act of 2018 (2018)**

SB 100 builds on SB 350, the Clean Energy and Pollution Reduction Act of 2015. SB 100 increases the 2030 RPS target set in SB 350 to 60 percent and requires and RPS of 100 percent by 2045.

## **Local**

### **PG&E Integrated Resource Plan<sup>19</sup>**

PG&E serves Union City, including the project site. PG&E adopted their *2018 Integrated Resource Plan* (IRP) on August 1, 2018 to provide guidance for serving the electricity and natural gas needs of the residents and businesses within the PG&E service area, all while fulfilling regulatory requirements. The IRP contains the following objectives that are relevant to the proposed project.

- **Clean Energy:** In 2017, PG&E delivered nearly 80 percent of its electricity from GHG-free resources and 33 percent of its electricity from RPS-eligible renewable resources, such as solar, wind, geothermal, biomass, and small hydroelectric projects
- **Reliability:** PG&E's IRP analysis includes an evaluation of PG&E's contribution to system and local reliability, in compliance with the CPUC's resource adequacy requirements
- **Affordability:** PG&E's IRP analysis selects resources to meet the State's clean energy and reliability goals and provides a system average rate forecast in compliance with the CPUC's requirements for investor-owned utilities

### **EBCE Integrated Resource Plan<sup>20</sup>**

EBCE serves all of Alameda County, including Union City, and the project site. EBCE adopted their *2018 Integrated Resource Plan* (IRP) on August 1, 2018. The IRP provides guidance for serving the electricity and natural gas needs of residents and businesses within the EBCE service area, all while fulfilling regulatory requirements. The EBCE IRP does not have any specific goals or policies, but rather lays out measures for achieving EBCE's overarching goal of achieving 100 percent RPS-eligible renewable energy by 2030.

### **Union City Climate Action Plan**

The *Union City Climate Action Plan* was adopted in 2010 and set a long-term goal of reducing GHG emission 20 percent below 2005 levels by 2020. The CAP identifies emission reduction strategies in the land use, transportation, buildings and energy, waste, water, and green infrastructure sectors.

<sup>19</sup> Pacific Gas & Electric (PG&E). 2018. *Integrated Resource Plan*. Available: [https://www.pge.com/pge\\_global/common/pdfs/for-our-business-partners/energy-supply/integrated-resource-planning/2018-PGE-Integrated-Resource-Plan.pdf](https://www.pge.com/pge_global/common/pdfs/for-our-business-partners/energy-supply/integrated-resource-planning/2018-PGE-Integrated-Resource-Plan.pdf). Accessed: March 24, 2020.

<sup>20</sup> East Bay Community Energy (EBCE). 2018. *East Bay Community Energy 2018 Integrated Resource Plan (Public Version)*. Available: [https://ebce.org/wp-content/uploads/R1602007-EBCE-Integrated-Resource-Plan\\_20180801\\_Final.pdf](https://ebce.org/wp-content/uploads/R1602007-EBCE-Integrated-Resource-Plan_20180801_Final.pdf). Accessed: April 13, 2020.

Strategies include supporting transit-oriented development, promoting alternative modes of transportation, reducing energy and water consumption, increasing waste diversion, and expanding the urban forest.<sup>21</sup> Since GHG emissions largely involve energy consumption, (i.e., fossil fuel usage), a reduction in GHG emissions would also equate to a reduction in energy consumption. Therefore, the following GHG reduction measures apply to energy.

- LU-1.1: Continue supporting adjacent transit-oriented development in the Intermodal Station District and adjacent areas.
- T-3.1: Increase participation employers in transportation demand management programs.
- E-3.2: Promote 'Cool Roofs.'
- E-4.1: Continue implementing the Green Building Ordinance.

### **Union City Green Building and Landscaping Practices, Municipal Code Chapter 15.76**

The City adopted the Green Building and Landscaping Practices ordinance as part of the City's municipal code in March 2006. The ordinance provides requirements for green building and landscaping practices to be used in City-sponsored and public partnership projects through all aspects of a project, including design, construction, demolition, renovation, operation, and maintenance of buildings and landscaping in the City. The requirements are designed to reduce landfill waste, conserve natural resources, increase energy efficiency, lower costs associated with operation and maintenance, improve indoor air quality, and minimize impacts on the natural environment.

### **City of Union City 2040 General Plan**

The *City of Union City 2040 General Plan* (General Plan) includes the following goals and policies associated with energy:

**Goal RC-6 and RC-7:** The City shall continue to promote programs and initiatives that support and maximize energy conservation and the use of renewable energy in Union City.

**Policy RC-6.1: Reduced Energy Consumption.** The City shall support measures to reduce energy consumption and increase energy efficiency in residential, commercial, industrial, and public buildings.

**Policy RC-6.2: Renewable Energy.** The City shall promote efforts to increase the use of renewable energy resources, including but not limited to, wind, solar, hydropower, and biomass and the use of battery storage within the community and City operations, where feasible.

**Policy RC-6.6: Energy-Efficient Lighting.** The City shall employ energy-efficient lighting technology to reduce the energy required to light parks, streets, and public facilities.

**Policy RC-6.7: Green Building.** The City shall encourage new development to adopt and incorporate green building features included in the CALGreen Tier 1 checklist in project designs and shall consider future amendments to the Municipal Code to adopt CALGreen Tier 1 requirements consistent with the State building code.

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<sup>21</sup> Union City. 2010. *Union City Climate Action Plan*. November. Available: <https://www.unioncity.org/DocumentCenter/View/708/Union-City-Climate-Action-Plan-PDF?bidId=>. Accessed: March 17, 2020.

**Policy RC-6.8: Zero Net Energy.** The City shall encourage Zero Net Energy building design for new residential and non-residential construction projects and consider future amendments to the Municipal Code to adopt ZNE requirements consistent with the State building code.

**Policy RC-7.5: Greenhouse Gas Reduction in New Development.** The City shall reduce greenhouse gas emissions from new development by encouraging development that lowers vehicle miles traveled (VMT); discouraging auto-dependent development patterns; promoting development that is compact, mixed-use, pedestrian friendly, and transit oriented; promote energy-efficient building design and site planning; improving the jobs/housing ratio; and other methods of reducing emissions.

#### **Decoto Industrial Park Study Area Specific Plan**

The *Decoto Industrial Park Study Area Specific Plan* (DIPSA Specific Plan) (most recently amended in July 2006) includes the following policy associated with energy:

**Section IV, Policy Utilities-5:** To the greatest extent possible, water, wastewater and storm drains should be design for gravity flow to increase reliability and to reduce energy costs.

## **4.4.2 Environmental Impacts**

This section contains the impact analysis for the proposed project as it pertains to energy. The methods used to determine the potential project-related impacts, as well as the thresholds of significance used to conclude whether or not an impact would be significant, are described below. Measures that would mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts are included within each impact discussion where they have been deemed necessary and appropriate.

### **4.4.2.1 Thresholds of Significance**

The California Environmental Quality Act (CEQA) Guidelines Appendix G (per Title 14 of the CCRs Section 15000 et seq.) identifies significance criteria to be considered for determining whether a project could have significant impacts on energy. Would the project:

- Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?
- Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?

### **4.4.2.2 Methods for Analysis**

As described in Section 4, *Environmental Impact Analysis*, subsequent to the drafting of this EIR, the applicant indicated that the residential units associated with proposed project would increase by 10, from 964 to 974 units. As described therein, the analysis presented throughout this EIR adequately accounts for the potential environmental impacts of the 974 new residential units.

Energy impacts associated with construction and operation of the proposed project were assessed and quantified, where applicable, using standard and accepted software tools and techniques. The methodology for calculating the project's energy use is summarized below.



Appendix F of the CEQA Guidelines provides guidance for determining whether a project would result in wasteful, inefficient, or unnecessary consumption of energy resources. As stated in Appendix F, the goal of conserving energy implies the wise and efficient use of energy, and the means of achieving this goal includes the following.

- Decreasing overall per capita energy consumption
- Decreasing reliance on fossil fuels such as coal, natural gas and oil
- Increasing reliance on renewable energy sources

Based on CEQA Guidelines Appendix F, environmental considerations in the assessment of energy consumption impacts may include the following.

- The project's energy requirements and its energy efficiencies by amount and fuel type for each stage of the project, including construction, operation, maintenance, and/or removal. If appropriate, the energy intensiveness of materials may be discussed.
- The effects of the project on local and regional energy supplies and on requirements for additional capacity.
- The effects of the project on peak- and base-period demands for electricity and other forms of energy.
- The degree to which the project complies with existing energy standards.
- The effect of the project on energy resources.
- The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

## Construction

For this analysis, fuel and electricity use during construction of the proposed project and offsite improvements were estimated using the California Emissions Estimator Model (CalEEMod) (version 2016.3.2) and the Roadway Construction Emissions Model (RCEM) (version 9.0). The proposed construction schedule was provided by the sponsor. Model defaults for equipment operating details, trip numbers, and trip lengths were reviewed and confirmed by the project applicant, and were then used for analysis. Carbon dioxide equivalent (CO<sub>2</sub>e) emissions associated with each corresponding construction activity (e.g., off-road equipment, worker trips) were converted to gallons of diesel or gasoline using conversion factors and were summed accordingly. For ease of comparison across all energy consumption amounts, gallons of diesel and gasoline were converted to BTUs assuming an energy intensity of 124,000 BTU per gallon of gasoline, and 139,000 BTU per gallon of diesel.<sup>22</sup>

**Appendix 4.1** includes construction modeling inputs, CalEEMod output files, and fuel use calculations.

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<sup>22</sup> Environment and Ecology. 2020. *Energy Units and Calculators*. Available: <http://environment-ecology.com/what-is-energy/90-energy-units-and-calculators.html>. Accessed: April 13, 2020.

## Operation

Fuel use from motor vehicles traveling to and from the project site were evaluated using the California Department of Transportation's (Caltrans) CT-EMFAC2017 emissions model (version 1.0.2.27401), CARB's EMFAC2017 model, and traffic data provided by Fehr & Peers.<sup>23</sup> To determine fuel use (i.e., vehicle movement/travel), GHG emissions from running exhaust were calculated by multiplying VMT estimates by the appropriate emission factors from the CT-EMFAC2017 model. These emissions were then added to process emissions, such as emissions generated from vehicle starts, running losses, etc. Project GHG emissions were calculated by multiplying the quantity of the project's annual VMTs by the appropriate emission factors from the CARB EMFAC2017 model. CO<sub>2</sub>e emissions associated with mobile source fuel usage were then converted to gallons of diesel or gasoline using conversion factors and were summed accordingly. For ease of comparison across all energy consumption amounts, gallons of diesel and gasoline were converted to BTUs assuming an energy intensity of 124,000 BTU per gallon of gasoline, and 139,000 BTU per gallon of diesel.<sup>24</sup> **Appendix 4.1** includes the CT-EMFAC2017 and EMFAC2017 model emission factors and traffic data used for this analysis.

Energy use was estimated using CalEEMod (version 2016.3.2). Energy use was quantified for existing (i.e., 2020) and buildout (i.e., 2025) conditions both with and without the proposed project, and the modeling results reflect implementation of State measures to reduce energy use (e.g., per SB 100, and Pavley requirements). Quantifiable features required for CALGreen compliance (i.e., low-flow fixtures) were incorporated into CalEEMod. CalEEMod default data for energy were assumed based on the anticipated land uses identified. For ease of comparison, electricity consumption was converted to BTUs assuming an energy intensity of 3,416 BTU per kilowatt hour (kWh).<sup>25</sup> Natural gas consumption is presented in CalEEMod in million BTU format. In addition, gallons of diesel and gasoline were converted to BTUs assuming an energy intensity of 124,000 BTU per gallon of gasoline, and 139,000 BTU per gallon of diesel.<sup>26</sup> **Appendix 4.1** includes the CalEEMod output files.

### 4.4.2.3 Impacts and Mitigation Measures

**Impact EN-1: The project could result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation. (Less than Significant with Mitigation)**

#### Construction

Demolition and construction activities for the project would result in a temporary increase in energy demand. Construction-related energy use would result from electricity used to power electric construction equipment, mobile offices, or water delivered to the construction site; gasoline and

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<sup>23</sup> Hawkins, Mike (Fehr & Peers). Personal communication. Email to Jessica Viramontes. Fwd: 751 Gateway Updated Transportation Materials. Received March 13, 2020.

<sup>24</sup> Environment and Ecology. 2020. *Energy Units and Calculators*. Available: <http://environment-ecology.com/what-is-energy/90-energy-units-and-calculators.html>. Accessed: April 13, 2020.

<sup>25</sup> Union City. 2010. *Union City Climate Action Plan*. November. Available: <https://www.unioncity.org/DocumentCenter/View/708/Union-City-Climate-Action-Plan-PDF?bidId=>. Accessed: March 17, 2020.

<sup>26</sup> Ibid.

diesel fuel used for transportation of workers and haul trucks to and from the construction site; and fuel used for operation of off-road equipment. Construction-related energy usage and consumption would vary throughout the course of project buildout, and would depend on the level of activity, length of construction period, specific construction operations, types of equipment, and number of personnel, which could result in a **significant** energy impact if best management practices (BMPs) are not implemented. Table 4.4-3 provides the estimated construction-related energy consumption; the table shows that project construction would consume approximately 92,890 million BTUs over the construction period.

**Table 4.4-3. Estimated Construction Energy Consumption for the Project**

Construction Year	Electricity	Gasoline	Diesel	Million BTUs per year
2021	567.0	275.4	14,857.2	<b>15,699.6</b>
2022	567.0	7,868.4	17,026.5	<b>25,461.9</b>
2023	567.0	10,059.7	11,991.9	<b>22,618.6</b>
2024	567.0	7,425.1	10,446.4	<b>18,438.5</b>
2025	567.0	3,264.1	6,840.3	<b>10,671.4</b>
<b>Overall Total</b>	<b>2,835.0</b>	<b>28,892.7</b>	<b>61,162.4</b>	<b>92.890.1</b>

Source: CalEEMod and EMFAC. **Appendix 4.1** includes the CalEEMod model outputs and construction energy calculations.

Notes: Million BTUs = million British thermal units

Mitigation Measure GHG-1a, Require Implementation of BAAQMD-recommended Construction BMPs, described in Section 4.6, *Greenhouse Gas Emissions*, would be implemented to reduce the amount of fossil fuel consumed during construction activities. Mitigation Measure GHG-1a would ensure 15 percent of the construction vehicles/equipment fleet use alternative fuel (e.g., biodiesel or electricity). It would also reduce the energy intensiveness associated with new building materials and discarded construction and demolition waste by requiring construction contractors to implement the BAAQMD's recommended BMPs—specifically, those associated with alternative fuel and recycling. Consequently, project construction would not result in the wasteful, inefficient, or unnecessary consumption of energy resources, and this impact would be **less than significant with mitigation**.

## Operation

Once operational, the proposed project would also result in the consumption of electricity, natural gas, diesel, and gasoline for operational uses such as power, emergency generators, heating, cooling, and landscaping activities. Operational energy consumption was evaluated under existing year (i.e., 2020) and buildout year (i.e., 2025) conditions. The analysis considers implementation of quantifiable measures that will reduce energy usage (e.g., per SB 100 requirements). The analysis also considers compliance with all applicable City and State green building measures, including Title 24, Part 6, the California Energy Code baseline standard requirements, and the 2016 California Green Building Standards Code, commonly referred to as CALGreen (California Code of Regulations, Part 11); applicable required measures would be incorporated into the project design. Table 4.4-4 provides the estimated operational energy consumption; the table shows that project operation would increase energy consumption on the project site by approximately 201,050 million BTUs as

**Table 4.4-4. Estimated Operational Energy Consumption for the Project**

Analysis Condition/Source	Million BTUs per Year
<b>Existing Conditions (2020)</b>	
It is conservatively assumed that the existing uses at the project site generate no demand for natural gas, electricity, diesel fuel, or gas.	
<b>Total Existing Energy Consumption</b>	<b>0</b>
<b>Buildout Conditions (2025, With Proposed Project)</b>	
Electricity	31,437
Natural Gas	8,558
Mobile—Gasoline	117,961
Mobile—Diesel	43,094
<b>Total Buildout Conditions Energy Consumption<sup>a</sup></b>	<b>201,050</b>
<b>Net Change with Proposed Project</b>	
Buildout Conditions (2025, With Proposed Project) vs. Existing Conditions (2020)	+201,050
<b>Energy per Square Foot (MMBTU per square foot)</b>	
Existing Conditions (2020)	0
Buildout Conditions (2025, with Proposed Project)	0.11
Sources: CalEEMod and EMFAC models. <b>Appendix 4.1</b> includes the CalEEMod model outputs and mobile emissions calculations.	
Notes: As noted above, energy analysis reflects implementation of quantifiable State measures that will reduce energy consumption (e.g., per SB 100 requirements). Million BTUs = million British thermal units.	
<sup>a</sup> Values may not total due to rounding.	

compared to existing conditions, with an overall increase in 0.11 million BTUs of energy use per square foot. However, energy use per square foot would be expected to decrease from 0.11 million BTUs per square foot over time due to the anticipated energy efficiency of future buildings and vehicles, which would also be subject to increasingly robust regulations over time to meet the State's renewable energy mandates, and further described below.

The project would install Energy Star appliances and comply with the most recent version of the Title 24 standards and CALGreen requirements. Additionally, the project design would incorporate environmentally sustainable design features including cool site and cool roof techniques, low water use plants, low-emitting building materials, collecting recyclables, and electric vehicle charging stations. The heating, ventilation, and air conditioning (HVAC) systems, along with other mechanical systems, would be designed around maximizing energy efficiency.

Based on the above analysis, operation of the project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources, and this impact would be ***less than significant***.

**Impact EN-2: The project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. (Less than Significant)**

State and local renewable energy and energy efficiency plans that apply to the proposed project are discussed above under *Regulatory Setting*. State plans include the AB 1493 Pavley Rules, California Title 24 energy efficiency standards, EO B-16-12, SB 350, and SB 100. Each of these plans contain

required standards related to energy efficiency and renewable energy development. Local plans that address energy efficiency and are designed to achieve the State's RPS mandates include PG&E's and EBCE's 2018 IRPs and the City's CAP. The City's General Plan and the DIPSA Specific Plan also include goals and policies that relate to energy use and reduction.

As discussed under Impact EN-1, the proposed project would incorporate sustainability features. As a result of the project, energy use by square foot would increase compared to existing conditions. However, energy use per square foot would be expected to decrease from 0.11 million BTUs per square foot due to the anticipated energy efficiency of future buildings and vehicles, which would be subject to increasingly robust regulations to meet the State's renewable energy mandates. Furthermore, the project would install Energy Star appliances, comply with Title 24 standards and CALGreen requirements, and incorporate sustainable features such as electric-vehicle parking spaces and energy efficient HVAC systems and appliances.

The proposed project would also be required to comply with State and local renewable energy and energy efficiency plans. As a result, it would benefit from renewable energy development and increases in energy efficiency. Specifically, vehicles and energy use from increased VMT and average daily trips within the area is expected to become increasingly more efficient as a result of the regulations included in Pavley Rules and EO B-16-12, which address average fuel economy and commercialization of zero-emission vehicles, respectively. Building energy efficiency is also anticipated to increase as a result of compliance with Title 24 building codes, which are expected to move toward zero net energy for newly constructed buildings, and shift toward 100 percent renewable energy under SB 350 and SB 100 regulations. With implementation of the proposed project, EBCE would continue to pursue procurement of renewable energy sources to meet its RPS portfolio goals and to comply with State regulations. As noted in EBCE's 2018 IRP, and based on targeted renewable energy percentages, EBCE intends to significantly outpace California's annual RPS procurement mandates throughout the 2018–2027 planning period. Buildout of the proposed project would not conflict with or obstruct State or local plans for renewable energy or energy efficiency. Therefore, the impact would be *less than significant*.

### Cumulative Impacts

The cumulative geographic context for energy use includes the EBCE and PG&E service areas for electricity and natural gas, which comprise both Alameda County and the larger Northern California area. The approach to cumulative impacts is described in Section 4, *Environmental Impact Analysis*.

**Impact C-EN-1: The project, in combination with past, present, and reasonably foreseeable projects, would not result in a significant cumulative impact related to the wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation. (Less than Significant)**

Continued growth throughout EBCE's and PG&E's service areas could contribute to ongoing increases in demand for electricity and natural gas. These anticipated increases would be countered in part by ongoing more rigorous State and local requirements related to renewable energy and increased energy efficiency. The extent to which cumulative development through 2025 (the project's buildout year) could result in wasteful, inefficient, or unnecessary consumption of energy resources would depend on the specific characteristics of new development, and are not known at this time. As previously discussed, SB 100 obligates utilities to supply 100 percent carbon-free electricity by 2045, and EBCE has established a goal of achieving 100 percent RPS-eligible

renewable energy by 2030. Similarly, Pavley standards are expected to increase average fuel economy to roughly 54.5 miles per gallon (mpg) by 2025, increasing fuel economy and lowering the demand for fossil fuels. Thus, it is anticipated that future energy users will become more efficient and less wasteful over time, and a significant cumulative energy impact would not result.

As stated above, the proposed project would be completed in 2025, and would increase operational energy consumption on the project site by 201,050 million BTUs when compared to existing conditions. However, energy use per square foot would be expected to decrease from 0.11 million BTUs per square foot compared due to the incorporation of energy reducing design features, and ensuring that the future buildings and vehicles are compliant with the anticipated increasingly robust regulations over time to meet the State's renewable energy mandates. Therefore, buildout of the proposed project would reduce energy consumption and increase renewable energy generation, and would not result in the wasteful, inefficient, or unnecessary consumption of energy resources.

Similar to the proposed project, cumulative projects would most likely include features that would reduce energy consumption and increase renewable energy generation. For these reasons, the proposed project in combination with past, present, and reasonably foreseeable future projects would not result in a significant cumulative impact related to the wasteful, inefficient, or unnecessary consumption of energy resources. The cumulative impact would be *less than significant*.

**Impact C-EN-2: The project, in combination with past, present, and reasonably foreseeable projects, would not result in a significant cumulative impact related to conflicting with or obstructing a State or local plan for renewable energy or energy efficiency. (Less than Significant)**

Similar to the proposed project, cumulative development through 2025 (i.e., the proposed project buildout year) would be required to comply with all adopted State and local renewable energy and energy efficiency regulations and plans. Therefore, the proposed project in combination with past, present, and reasonably foreseeable future projects would not result in a significant cumulative impact related to conflicting with or obstructing a State or local plan for renewable energy or energy efficiency. The cumulative impact would be *less than significant*.

## 4.5 Geology, Soils, and Paleontological Resources

This section describes the environmental and regulatory setting for geology, soils, and paleontological resources. It also describes impacts on geology, soils, and paleontological resources that would result from implementation of the project and mitigation for significant impacts where feasible and appropriate.

No comments regarding geology, soils, and paleontological resources were received in response to the Notice of Preparation (NOP).

### 4.5.1 Existing Conditions

#### 4.5.1.1 Environmental Setting

##### Physiography

Union City is located within the Coast Ranges Geomorphic Province, a relatively geologically young and seismically active region on the western margin of the North American plate. The ranges and valley trend northwest, sub-parallel to the San Andreas fault. The Coast Ranges are composed of thick Mesozoic and Cenozoic sedimentary strata. The northern and southern ranges are separated by a depression containing the San Francisco Bay. The project site is located west of the northwest-trending Hayward fault, which divides the low-lying, gently sloping, and nearly level alluvial and estuarine landforms that surround San Francisco Bay from the strongly sloping and steel upland forms of the northwest-trending East Bay hills. West of the Hayward fault, the land is urbanized, whereas east of the fault, development is sparser.

##### Subsurface Conditions

The approximately 26.5-acre project site is within the 105-acre Station East subarea of the *Decoto Industrial Park Study Area Specific Plan* (DIPSA Specific Plan). The project site is occupied by existing and vacant industrial uses, surface parking, and an agricultural field. The project site is bound by Decoto Road, 7<sup>th</sup> Street, Bradford Way, and the Niles subdivision Union Pacific Railroad (UPRR) tracks.

The Natural Resources Conservation Service (NRCS) describes the underlying soils as consisting of Rincon clay loam. A Cone Penetration Test (CPT) performed within the vacant field portion of the project site encountered 4 to 5 feet of medium-dense to dense silty sand deposits underlain by a medium stiff to stiff layer of clay, increasing in stiffness down to 25 feet and interbedded with thin, medium-dense layers of silts and sands.<sup>1</sup> Borings performed within a developed portion of the project site encountered less than 4 inches of asphalt to 8 inches of concrete (depending on the location of the boring), aggregate bases between 8 and 10 inches, with near surface soils consisting of low to moderate plasticity sandy clays ranging in consistency from stiff to hard to depths of 20 feet. Medium dense gravely sand with trace silt was encountered between 3.5 and 6.5 feet and 16.5 and 18.5 feet, depending on the boring.<sup>2</sup>

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<sup>1</sup> ENGeo. 2013. *Preliminary Geotechnical Exploration: Zwissig Way Development, Union City, California*. (9399.001.000.) San Ramon, CA, November 18, 2013.

<sup>2</sup> Berlogar Stevens & Associates. 2017. *Due Diligence Level Geotechnical Investigation Airgas/Williams Mixed-Use Decoto Road and 7<sup>th</sup> Street, Union City, California*. (9399.001.000.) Pleasanton, CA, October 11, 2017.

Groundwater can fluctuate according to the season, as well as other factors such as temperature, irrigation, and precipitation. According to the California Geological Survey for the Newark quadrangle's "depth to historically high groundwater" location map (within which the project site is located), historically high groundwater levels at the project site are between 30 to 40 feet below ground surface (bgs).<sup>3</sup> Recent assessments have encountered groundwater at the project site between approximately 28 and 70 feet below the ground surface.<sup>4,5</sup> A recent review of historic monitoring found the minimum depth to groundwater to be approximately 25 feet, with an average depth of 30 to 35 feet.<sup>6</sup>

## Seismicity and Seismic Hazards

The entire San Francisco Bay Area is located within the San Andreas fault system, a complex of active faults forming the boundary between the North American and Pacific lithospheric plates. Movement of the plates relative to one another results in the accumulation of strain along the faults, which is released during earthquakes. Numerous moderate to strong historic earthquakes have been generated in northern California by the San Andreas fault system. This level of active seismicity results in a relatively high seismic risk in the San Francisco Bay Area.

The San Andreas fault system includes numerous faults in the Bay Area considered under the Alquist-Priolo Earthquake Fault Zoning Act to be active (i.e., to have evidence of surface fault rupture in the past 11,000 years). Active regional faults include the San Andreas, Hayward, Calaveras, Concord-Green Valley, and Greenville faults. In addition to the known active faults, recent research on the structural geology and tectonics of the region indicates that there is another potential source of large-magnitude earthquakes in the region. A structural trend of folds and thrust faults has been mapped in the hills north of the Livermore Valley. The largest of these features is the Mount Diablo anticline. Recent research has interpreted this feature to be a large fold developed above a blind (i.e., buried) thrust fault. The accumulation of strain on the blind Mount Diablo thrust fault presents the potential for an earthquake along this fault.

The project site lies west of the three major northwest-trending fault zones within the City, the Hayward fault zone, the Mission fault zone, and the Silver Creek fault zone.<sup>7</sup> No mapped active faults cross the project site; however, the Hayward fault is approximately 150 feet northeast of the project site. The largest earthquake on the Hayward fault occurred in 1868 with an epicenter south of San José, California,<sup>8</sup> and surface fault rupture occurred along it from Fremont to San Leandro. Towns in the East Bay suffered the greatest damage from the earthquake: many buildings were destroyed and the nearby town of Hayward was nearly destroyed. Farther away in San Francisco, Oakland, and San José, walls, chimneys, and other heavy architectural elements of buildings fell. The magnitude of the earthquake is estimated at 6.8.

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<sup>3</sup> California Geological Survey, *Seismic Hazard Zone Report for the Newark 7.5-Minute Quadrangle, Alameda County, California*, Seismic Hazard Zones Report 090, 2003.

<sup>4</sup> ENGeo. 2016. *Phase I Environmental Site Assessment – Zwissig Way Parcels, Union City, California*. April.

<sup>5</sup> ENGeo. 2014. *Phase I Environmental Site Assessment – 33945 7<sup>th</sup> Street, Union City, California*. October.

<sup>6</sup> ENGeo. 2016. *Phase I Environmental Site Assessment – Zwissig Way Parcels, Union City, California*. April.

<sup>7</sup> City of Union City. 2020. *Union City 2040 General Plan Update*. Adopted: December 2019. Chapter 6: Safety Element. Available: <http://www.uc2040.com/documents/>. Accessed: March 25, 2020.

<sup>8</sup> U.S. Geological Survey. 2018. *The Hayward Fault—Is It Due for a Repeat of the Powerful 1868 Earthquake?* August. (FS 2008-3019.) Available: <https://pubs.usgs.gov/fs/2018/3052/fs20183052.pdf>. Accessed: July 9, 2020.



## Primary Seismic Hazards

### **Surface Fault Rupture**

Surface fault rupture occurs when the ground surface is broken due to fault movement during an earthquake. The location of surface fault rupture can be assumed to be along an active fault line. Because the Hayward fault is within 150 feet of the project site and it has a history of both surface fault rupture in the 1868 earthquake and fault creep,<sup>9,10</sup> there is a risk of surface fault rupture within the project site.

### **Seismic Ground Shaking**

Seismic ground shaking is a general term referring to all aspects of motion of the earth's surface resulting from an earthquake. Ground shaking is normally the major cause of damage in seismic events. The extent of ground shaking is determined by the magnitude and intensity of the earthquake, distance from the rupture, and local geologic conditions. Intensity is a subjective measure of the perceptible effects of seismic energy at a given point and varies with distance from the epicenter and local geologic conditions. The Modified Mercalli Intensity Scale (MMI) is the most commonly used scale for measurement of the subjective effects of earthquake intensity.

Earthquake size is generally quantitatively measured in terms of moment magnitude. A rupture of the Hayward fault is considered capable of generating a moment magnitude (MW) 7.4 earthquake.<sup>11</sup> An earthquake matching this scenario is estimated to be capable of generating very strong (MM-VIII) to violent (MM-IX) seismic shaking at the project site.<sup>12</sup> The 2014 Working Group for California Earthquake Probabilities at the U.S. Geological Survey (USGS) predicted a 72 percent chance of a magnitude 6.7 or greater earthquake occurring in the Bay Area in 30 years. The most extreme ground shaking within the City is expected to occur as a result of a seismic event along the Hayward fault, and intensity is expected to be greatest in the alluvial landforms west of the fault zone where the project site is located.<sup>13</sup> This is due to the fine textured sediments and soils which tend to amplify seismic waves.

## Secondary Seismic Hazards

### **Liquefaction**

Liquefaction occurs when saturated unconsolidated sediments lose strength and stiffness with applied stress and/or shaking, such as during an earthquake. The lack of cohesion causes solid soil to behave like a liquid, resulting in ground failure. Ground failure can take on many forms, including, but not limited to, loss of bearing, lateral spreading, lowering of the ground surface, ground settlement, ground

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<sup>9</sup> *Fault creep* is the slow movement of two sides of an earthquake fault moving past each other, in contrast to sudden and fast movement of an earthquake.

<sup>10</sup> U.S. Geological Survey. 2018. *The Hayward Fault—Is It Due for a Repeat of the Powerful 1868 Earthquake?* August. (FS 2008-3019.) Available: <https://pubs.usgs.gov/fs/2018/3052/fs20183052.pdf>. Accessed: July 9, 2020.

<sup>11</sup> Watt, J., D. Ponce, T. Parsons, and P. Hart. 2016. Missing Link between the Hayward and Rodgers Creek Faults. *Science Advances*. Available: <https://advances.sciencemag.org/content/advances/2/10/e1601441.full.pdf>. Accessed: July 9, 2020.

<sup>12</sup> Association of Bay Area Governments. 2018. Future Earthquake Shaking Scenarios. Available: <http://resilience.abag.ca.gov/earthquakes/>. Accessed: July 9, 2020.

<sup>13</sup> City of Union City. 2020. *Union City 2040 General Plan Update*. Adopted: December 2019. Chapter 6: Safety Element. Available: <http://www.uc2040.com/documents/>. Accessed: March 25, 2020.

fissures, and sand boils. Liquefaction within subsurface layers, which can occur during ground-shaking associated with an earthquake, could result in ground settlement. According to the *2040 Union City General Plan Update Environmental Impact Report*<sup>14</sup> (General Plan EIR), portions of central and southeast Union City are susceptible to high and very high levels of liquefaction, while the remainder of the developed area in the City is susceptible to moderate levels of liquefaction.<sup>15</sup> Borings performed on the vacant portion of the project site noted that potentially liquefiable materials existed below depths of 28 feet, which could result in settlement of 0.5 inch over 50 feet in a seismic event.<sup>16</sup>

### **Lateral Spreading**

Lateral spreading is a phenomenon in which a surficial soil displaces along a shear zone that has formed within an underlying liquefied layer. The surficial blocks are transported downslope or in the direction of a free face, such as a bay, by earthquake, and gravitational forces. Lateral spreading typically occurs on gentle slopes with a rapid, fluid-like flow movement. It can also occur when the potential exists for liquefaction in underlying saturated soils. Lateral spreading is generally the most pervasive and damaging type of liquefaction-induced ground failure generated by earthquakes. The western portion of Union City is identified an area with a potential seismic liquefaction risk in the General Plan<sup>17</sup> and is subject to risk from lateral spreading. The project site is located east of this area and is not located in a California Geological Survey–identified Liquefaction Zone and is therefore at a low risk for lateral spreading.<sup>18</sup>

### **Expansive Soils and Weak Soils**

Expansive soils are characterized by their ability to undergo significant volume changes (i.e., shrink and swell) due to variation in moisture content. Expansive soils are typically very fine grained and have a high to very high percentage of clay. They can damage structures and buried utilities and increase maintenance requirements. The presence of expansive soils is typically associated with high clay content, as determined by site-specific data. According to the General Plan EIR, soils with high shrink-swell potential exist in some of the eastern, upland portions of Union City and in the hillside area.<sup>19</sup> As noted above, soils within the project site have been mapped by the NRCS as consisting of Rincon clay loam, which is moderately to highly expansive. Generally, projects in areas with expansive soils may require special building foundations or grade preparation, such as the removal of problematic soils and replacement with engineered soils. For example, the Geotechnical Investigation performed for Airgas/Williams Mixed-Use Project noted that the near-surface soils at the project site included clay soils with low to moderate expansion potential and recommended shallow foundations, concrete slab-on-grade floors, and exterior concrete flatwork to minimize impact from swelling and shrinkage.<sup>20</sup>

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<sup>14</sup> Rincon Consultants, Inc. *2040 Union City General Plan Update Environmental Impact Report*. November 2019.

<sup>15</sup> Ibid.

<sup>16</sup> ENGeo. 2013. *Preliminary Geotechnical Exploration: Zwissig Way Development, Union City, California*. (9399.001.000.) San Ramon, CA, November 18, 2013.

<sup>17</sup> City of Union City. 2020. *Union City 2040 General Plan Update*. Adopted: December 2019. Chapter 6: Safety Element. Available: <http://www.uc2040.com/documents/>. Accessed: March 25, 2020.

<sup>18</sup> California Geologic Survey. 2003. *Earthquake Zones of Required Investigation Newark Quadrangle*. Released: July 2, 2003. Available: [https://gmw.conservation.ca.gov/SHP/EZRIM/Maps/NEWARK\\_EZRIM.pdf](https://gmw.conservation.ca.gov/SHP/EZRIM/Maps/NEWARK_EZRIM.pdf). Accessed: July 9, 2020.

<sup>19</sup> Rincon Consultants, Inc. *2040 Union City General Plan Update Environmental Impact Report*. November 2019.

<sup>20</sup> Berlogar Stevens & Associates. 2017. *Due Diligence Level Geotechnical Investigation Airgas/Williams Mixed-Use Decoto Road and 7<sup>th</sup> Street, Union City, California*. (9399.001.000.) Pleasanton, CA, October 11, 2017.

Weak soils can compress, collapse, or spread laterally under the weight of buildings and fill, causing settlement relative to the thickness of the weak soil. Usually the thickness of weak soil varies and differential settlement will occur. Weak soils also tend to amplify shaking during an earthquake and can be susceptible to liquefaction. According to the General Plan EIR, alluvial soils west of the Hayward fault zone in Union City are susceptible to subsidence due to compression.<sup>21</sup> However, the relative strength or weakness of alluvial soils also depends on the combination of clay and sand. As discussed above, a CPT performed at the project site encountered 4 to 5 feet of medium dense to dense silty sand deposits, underlain by medium stiff to stiff layer of clay increasing in stiffness down to 25 feet interbedded with thin medium dense layers of silts and sands.<sup>22</sup> In addition, borings performed at the project site encountered near surface soils consisting of low to moderate plasticity sandy clays ranging in consistency from stiff to hard to depths of 20 feet.<sup>23</sup> Therefore, the soils underlying the project site pose a low risk for compression or collapse.

## Landslides

Landslides occur when the stability of a slope changes from a stable to an unstable condition. The stability of a slope is affected by the following factors: inclination, material type, moisture content, orientation of layering, and vegetative cover. In general, steeper slopes are less stable than more gently inclined ones. Two types of landslides, seismically induced and precipitation induced, have the potential to occur in the steep hills approximately 0.5 mile from the project site. The project site itself is relatively flat and located west of the East Bay Hills, in an urbanized, low-lying area of the City. The project site is not within a Seismic Landslide Area as in the General Plan<sup>24</sup> or within a Earthquake-Induced Landslide Zone identified by the California Geological Survey.<sup>25</sup>

## Paleontological Resources

The geologic unit exposed at and below ground surface at the project site is older Quaternary alluvium (Qo) of Pleistocene age.<sup>26,27</sup> This geologic unit consists of dissected alluvial deposits.<sup>28</sup>

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<sup>21</sup> Rincon Consultants, Inc. 2040 Union City General Plan Update Environmental Impact Report. November 2019.

<sup>22</sup> ENGeo. 2013. *Preliminary Geotechnical Exploration: Zwissig Way Development, Union City, California*. (9399.001.000.) San Ramon, CA, November 18, 2013.

<sup>23</sup> Berlogar Stevens & Associates. 2017. *Due Diligence Level Geotechnical Investigation Airgas/Williams Mixed-Use Decoto Road and 7<sup>th</sup> Street, Union City, California*. (9399.001.000.) Pleasanton, CA, October 11, 2017.

<sup>24</sup> City of Union City. 2020. *Union City 2040 General Plan Update*. Adopted: December 2019. Chapter 6: Safety Element. Available: <http://www.uc2040.com/documents/>. Accessed: March 25, 2020.

<sup>25</sup> California Geological Survey. 2003. *Earthquake Zones of Required Investigation Newark Quadrangle*. Released: July 2, 2003. Available: [https://gmw.conservation.ca.gov/SHP/EZRIM/Maps/NEWARK\\_EZRIM.pdf](https://gmw.conservation.ca.gov/SHP/EZRIM/Maps/NEWARK_EZRIM.pdf). Accessed: July 9, 2020.

<sup>26</sup> Wagner, D.L., Bortugno, E.J., and McJunkin, R.D. 1991. *Geologic Map of the San Francisco-San Jose Quadrangle, California, 1:250,000*. Available: [ftp://ftp.consrv.ca.gov/pub/dmg/pubs/rgm/RGM\\_005A/RGM\\_005A\\_SanFrancisco-SanJose\\_1991\\_Sheet1of5.pdf](ftp://ftp.consrv.ca.gov/pub/dmg/pubs/rgm/RGM_005A/RGM_005A_SanFrancisco-SanJose_1991_Sheet1of5.pdf). Accessed: March 12, 2020.

<sup>27</sup> Wagner, D.L., Bortugno, E.J., and McJunkin, R.D. 1991. *Geologic Map Explanation of the San Francisco-San Jose Quadrangle, California, 1991*. Available: [ftp://ftp.consrv.ca.gov/pub/dmg/pubs/rgm/RGM\\_005A/RGM\\_005A\\_SanFrancisco-SanJose\\_1991\\_Sheet2of5.pdf](ftp://ftp.consrv.ca.gov/pub/dmg/pubs/rgm/RGM_005A/RGM_005A_SanFrancisco-SanJose_1991_Sheet2of5.pdf). Accessed: March 12, 2020.

<sup>28</sup> Ibid.

Pleistocene-age deposits in Alameda County have yielded numerous fossils, including *Mammuthus* (extinct genus of mammoth, a trunked mammal), *Bison* (genus of bison), *Camelops* (extinct genus of camel), and *Odocoileus* (genus of medium-sized deer) from the Pleistocene-age Quaternary alluvium in Fremont and *Glossotherium* (extinct genus of ground sloth) in Alameda.<sup>29</sup>

#### 4.5.1.2 Regulatory Setting

##### Federal

###### Earthquake Hazard Reduction Act of 1977

Federal laws codified in United States Code Title 42, Chapter 86, were enacted to reduce risks to life and property from earthquakes in the United States through the establishment and maintenance of an effective earthquake hazards reduction program. Implementation of these requirements are regulated, monitored, and enforced at the State and local levels. Key regulations and standards applicable to the proposed project are summarized below.

##### State

###### The Alquist-Priolo Earthquake Fault Zoning Act of 1972 (Alquist-Priolo Act)

The Alquist-Priolo Act (Public Resources Code Section 2621 et seq.) is intended to reduce the risk to life and property from surface fault rupture during earthquakes. The Alquist-Priolo Act prohibits the location and construction of most types of structures intended for human occupancy<sup>30</sup> over active fault traces and strictly regulates construction in the corridors along active faults. The State geologist has established regulatory zones along active faults,<sup>31</sup> called “Earthquake Fault Zones,” and published maps which identify areas where surface traces of active faults are present.<sup>32</sup>

###### Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act of 1990 (California Public Resources Code Sections 2690–2699.6) directs the California Geological Survey to identify and map areas prone to the liquefaction and landslides resulting from seismic events. The Act mandates that project sponsors have a site-specific geotechnical investigation performed in order to identify potential seismic hazards and formulate mitigation measures prior to the permitting of most developments within specific zoned areas.

###### California Building Standards Code

The California Building Standards Code, or State building code, is codified in Title 24 of the California Code of Regulations. The State building code provides standards that must be met to safeguard life or limb, health, property, and public welfare by regulating and controlling the design, construction,

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<sup>29</sup> University of California Museum of Paleontology. 2020. *Advanced Specimen Search, Alameda County*. Available: <https://ucmpdb.berkeley.edu/advanced.html>. Accessed: March 16, 2020.

<sup>30</sup> With reference to the Alquist-Priolo Act, a structure for human occupancy is defined as one “used or intended for supporting or sheltering any use or occupancy that is expected to have human occupancy rate of more than 2,000 person-hours per year” (California Code of Regulations, title 14, division 2, section 3601[e]).

<sup>31</sup> An active fault, for the purposes of the Alquist-Priolo Earthquake Fault Zoning Act, is one that has ruptured in the past 11,000 years.

<sup>32</sup> California Geological Survey. 2020. *The Alquist-Priolo Earthquake Fault Zoning (AP) Act*. Available: <http://www.conservation.ca.gov/cgs/rghm/ap>. Accessed: July 9, 2020.

quality of materials, use and occupancy, location, and maintenance of all buildings and structures within the State. The State building code generally applies to all occupancies in California, with modifications adopted in some instances by State agencies or local governing bodies. The current State building code incorporates, by adoption, the 2018 edition of the International Building Code of the International Code Council, with the California amendments. These amendments include building design and construction criteria that have been tailored for California earthquake conditions.

Chapter 16 of the State building code deals with structural design requirements governing seismically resistant construction (Section 1604), including, but not limited to, factors and coefficients used to establish a seismic site class and seismic occupancy category appropriate for the soil/rock at the building location and the proposed building design (Sections 1613.5 through 1613.7). Chapter 18 includes, but is not limited to, the requirements for foundation and soil investigations (Section 1803); excavation, grading, and fill (Section 1804); allowable load-bearing values of soils (Section 1806); foundation and retaining walls (Section 1807); and foundation support systems (Sections 1808 through 1810). Chapter 33 includes, but is not limited to, requirements for safeguards at work sites to ensure stable excavations and cut-and-fill slopes (Section 3304) as well as the protection of adjacent properties, including requirements for noticing (Section 3307). Appendix J of the State building code includes, but is not limited to, grading requirements for the design of excavation and fill (Sections J106 and J107), specifying maximum limits on the slope of cut-and-fill surfaces and other criteria, required setbacks and slope protection for cut-and-fill slopes (Section J108), and erosion control through the provision of drainage facilities and terracing (Sections J109 and J110).

### **California Division of Occupational Safety and Health Regulations**

Construction activities are subject to occupational safety standards for excavation, shoring, and trenching, as specified in California Division of Occupational Safety and Health regulations (Title 8).

## **Local**

### **City of Union City Building Code**

The City of Union City Building Division is tasked with plan checking, issuing permits, inspections, obtaining information on properties, neighborhood preservation services, and enforcing the standards found in various model codes adopted by the State through the Building Standards Commission. In particular, the City adopted by reference the 2019 California Building Standards Code (based on the 2018 International Building Code) and the State of California Amendments, Volumes 1 and 2, Appendices I, J, and V, including all revisions and amendments.<sup>33</sup>

### **City of Union City 2040 General Plan**

The General Plan includes the following goals and policies associated with geology, soils, and paleontological resources:

**Goal S-3:** To minimize the risks associated with geologic and soils hazards in order to protect public health and safety, property, and the environment.

**Policy S-3.1: Geotechnical Studies for New Development.** The City shall require investigations by a qualified geologist or soils engineer prior to issuing building permits or discretionary approvals (e.g., general plan or zoning map amendment, site development review,

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<sup>33</sup> Union City Municipal Code Section 15.40.010.

use permit, subdivision map) for any new construction, unless waived by the Building Official. Soils engineering reports shall specifically address secondary seismic hazards, especially potential for soil liquefaction, ground shaking, lateral spreading, and local subsidence. All such reports shall be evaluated for completeness and accuracy by either City personnel or a qualified third-party consultant paid for by the applicant or property owner. The reports shall identify appropriate mitigation measures to minimize risk.

**Policy S-3.3: Resilience of Infrastructure to Earthquake Damage.** The City shall not extend utility service lines and streets across known or suspected active fault traces or active or historic slide planes. The City may permit exceptions when special engineering practices or techniques are employed that ensure that the extension can remain operational after a disaster.

**Goal RC-3:** To protect and enhance the natural qualities of Union City's groundwater, surface water, and streams, and to ensure sufficient water supplies of good quality for all beneficial uses.

**Policy RC-3.3: Erosion Control.** The City shall require an erosion control plan for new construction, and shall ensure, through review and inspection, that erosion control is being implemented correctly on construction sites.

**Policy RC-3.4: Compliance with Regional Municipal Stormwater Permit.** The City shall require new development to comply with the most recent version of the San Francisco Bay Regional Municipal Stormwater Permit, which focuses on the incorporation of low impact development measures into development projects to improve the quality of stormwater runoff including, but not limited to, the incorporation of permeable paving, green roofs, cisterns, and biotreatment (e.g. rain gardens, bioretention units, bioswales, and planter/tree boxes), hydro-modification management, and the preservation of undeveloped open space.

**Goal RC-4:** To protect, to the extent possible, the City's significant archaeological and historical resources.

**Policy RC-4.8: Protection of Paleontological Resources.** The City shall require avoidance and/or mitigation for potential impacts to paleontological resources for any development in Union City that occurs within high sensitivity geologic units, whether they are mapped at the surface or occur at the subsurface. High sensitivity geology units include Great Valley Sequence (Panoche and Knoxville Formations), Monterey Group (Claremont Shale and Hambre Sandstone), Briones Formation, Orinda Formation, and Pleistocene age alluvial fan and fluvial deposits. When paleontological resources are uncovered during site excavation, grading, or construction activities, work on the site will be suspended until the significance of the fossils can be determined by a qualified paleontologist. If significant resources are determined to exist, the paleontologist shall make recommendations for protection or recovery of the resource.

The City shall require the following specific requirements for projects that could disturb geologic units with high paleontological sensitivity:

- **Retain a Qualified Paleontologist to Prepare a PMMP.** Prior to initial ground disturbance in previously undisturbed strata of geologic units with high sensitivity, the project applicant shall retain a Qualified Paleontologist, as defined by the SVP (2010), to direct all mitigation measures related to paleontological resources and design a Paleontological Mitigation and Monitoring Program (PMMP) for the project. The PMMP should include measures for a preconstruction survey, a training program for construction personnel, paleontological monitoring, fossil salvage, curation, and final reporting, as applicable.

### **Decoto Industrial Park Study Area Specific Plan**

The DIPSA Specific Plan (most recently amended in July 2006) includes the following policy associated with geology, soils, and paleontological resources:

**Environmental Policy 1:** Site-specific geotechnical studies shall be conducted prior to issuance of building permits for individual projects. The studies should address seismically induced ground shaking, ground lurch, lateral spreading and expansive soils.

## **4.5.2 Environmental Impacts**

This section contains the impact analysis for the proposed project as it relates to geology, soils, and paleontological resources. The methods used to determine the potential project-related impacts, as well as the thresholds of significance used to conclude whether or not an impact would be significant, are described below. Measures that would mitigate (i.e., avoid, minimize, rectify, eliminate, or compensate for) significant impacts are included within each impact discussion where they have been deemed necessary and appropriate.

### **4.5.2.1 Thresholds of Significance**

California Environmental Quality Act (CEQA) Guidelines Appendix G (14 California Code of Regulations [CCR] 15000 et seq.) identifies significance criteria to be considered for determining whether a project could have significant impacts on existing geological, soil, and paleontological resources. Would the project:

- Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
  - a. Rupture of a known earthquake fault, as described on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.)
  - b. Strong seismic ground shaking?
  - c. Seismically related ground failure, including liquefaction?
  - d. Landslides?
- Result in substantial soil erosion or the loss of topsoil?
- Be located on a geologic unit or soil that is unstable, or that will become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?
- Be located on expansive soil, as defined in Section 1802.3.2 of the California Building Standards Code (2007), creating substantial direct or indirect risks to life or property?
- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

### 4.5.2.2 Methods for Analysis

As described in Section 4, *Environmental Impact Analysis*, subsequent to the drafting of this EIR, the applicant indicated that the residential units associated with proposed project would increase by 10, from 964 to 974 units. As described therein, the analysis presented throughout this EIR adequately accounts for the potential environmental impacts of the 974 new residential units.

#### Geology and Soils

Potential project-related impacts were analyzed based on their potential to result in adverse impacts on geology and soils. Proposed project conditions were compared to existing conditions identified in geotechnical investigations performed at the project site as well as regional and local geology and fault-earthquake hazard information from the California Geological Survey and USGS, soils data from the NRCS, and City planning documents, including the General Plan.

#### Paleontological Resources

The Impact Mitigation Guidelines Revisions Committee of the Society of Vertebrate Paleontology (SVP) Standard Guidelines (Standard Guidelines)<sup>34</sup> include procedures for the investigation, collection, preservation, and cataloguing of fossil-bearing sites, including the designation of paleontological sensitivity. The Standard Guidelines are widely accepted among paleontologists and are followed by most investigators. The Standard Guidelines identify the two key phases of paleontological resource protection as (1) assessment and (2) implementation. Assessment involves identifying the potential for a project site or area to contain significant nonrenewable paleontological resources that could be damaged or destroyed by project excavation or construction. Implementation involves formulating and applying measures to reduce such adverse effects.

For the assessment phase, SVP defines the level of potential as one of four sensitivity categories for sedimentary rocks: High, Undetermined, Low, and No Potential.<sup>35</sup>

- **High Potential.** Assigned to geologic units from which vertebrate or significant invertebrate, plant, or trace fossils have been recovered; and sedimentary rock units suitable for the preservation of fossils (“middle Holocene and older, fine-grained fluvial sandstones...fine-grained marine sandstones, etc.”). Paleontological potential consists of the potential for yielding abundant fossils, a few significant fossils, or “recovered evidence for new and significant taxonomic, phylogenetic, paleoecologic, taphonomic, biochronologic, or stratigraphic data.”
- **Undetermined Potential.** Assigned to geologic units “for which little information is available concerning their paleontological content, geologic age, and depositional environment.” In cases where no subsurface data already exist, paleontological potential can sometimes be assessed by subsurface site investigations.
- **Low Potential.** Field surveys or paleontological research may allow determination that a geologic unit has low potential for yielding significant fossils (e.g., basalt flows). Mitigation is generally not required to protect fossils.

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<sup>34</sup> Society of Vertebrate Paleontology. 2010. *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources*. Available: [http://vertpaleo.org/Membership/Member-Ethics/SVP\\_Impact\\_Mitigation\\_Guidelines.aspx](http://vertpaleo.org/Membership/Member-Ethics/SVP_Impact_Mitigation_Guidelines.aspx). Accessed: March 12, 2020.

<sup>35</sup> Ibid.



- **No Potential.** Some geologic units have no potential to contain significant paleontological resources, such as high-grade metamorphic rocks (such as gneisses and schists) and plutonic igneous rocks (such as granites and diorites). Mitigation is not required.

The methods used to analyze potential impacts on paleontological resources for the project and develop mitigation for the identified impacts followed the SVP's Standard Guidelines, above.

- Assessment
  - Identify the geologic units that would be affected by the project, based on the project's depth of excavation—either at ground surface or below ground surface, defined as at least 5 feet below ground surface.
  - Evaluate the potential of the identified geologic units to contain significant fossils (paleontological sensitivity).
  - Identify impacts on paleontologically sensitive geologic units as a result of near-term and longer-term construction and operation that involve ground disturbance.
  - Evaluate impact significance.
- Implementation
  - According to the identified degree of sensitivity, formulate and implement measures to mitigate potential impacts.

The potential of the project to affect paleontological resources relates to ground disturbance. Geologic units at the project site were identified through California Geological Survey regional maps.<sup>36</sup> Determination of presence of paleontological resources in the units was based on the fossil record as documented by the University of California Museum of Paleontology.<sup>37</sup>

After the records search, the paleontological sensitivity of the units was assessed according to the Impact Mitigation Guidelines Revisions Committee of the SVP Standard Guidelines.<sup>38</sup>

For the purposes of this analysis, an impact on paleontological resources was considered significant and to require mitigation if it would result in any of the following:

- Damage to or destruction of vertebrate paleontological resources.
- Damage to or destruction of any paleontological resource that:
  - Provides important information about evolutionary trends, including the development of biological communities;
  - Demonstrates unusual circumstances in the history of life;

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<sup>36</sup> Wagner, D.L., Bortugno, E.J., and McJunkin, R.D. 1991. *Geologic Map of the San Francisco-San Jose Quadrangle, California, 1:250,000*. Available: [ftp://ftp.consrv.ca.gov/pub/dmg/pubs/rgm/RGM\\_005A/RGM\\_005A\\_SanFrancisco-SanJose\\_1991\\_Sheet1of5.pdf](ftp://ftp.consrv.ca.gov/pub/dmg/pubs/rgm/RGM_005A/RGM_005A_SanFrancisco-SanJose_1991_Sheet1of5.pdf). Accessed: March 12, 2020.

<sup>37</sup> University of California Museum of Paleontology. 2020. *Advanced Specimen Search, Alameda County*. Available: <https://ucmpdb.berkeley.edu/advanced.html>. Accessed: March 16, 2020.

<sup>38</sup> Society of Vertebrate Paleontology. 2010. *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources*. Available: [http://vertpaleo.org/Membership/Member-Ethics/SVP\\_Impact\\_Mitigation\\_Guidelines.aspx](http://vertpaleo.org/Membership/Member-Ethics/SVP_Impact_Mitigation_Guidelines.aspx). Accessed: March 12, 2020.

- Represents a rare taxon or a rare or unique occurrence;
- Is in short supply and in danger of being destroyed or depleted;
- Has a special and particular quality, such as being the oldest of its type or the best available example of its type; or
- Provides information used to correlate strata for which it may be difficult to obtain other types of age dates.

### 4.5.2.3 Issues Not Evaluated Further

**Potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as described on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. (Refer to Division of Mines and Geology Special Publication 42.)**

The project site is not located within an Earthquake Fault Zone, as defined by the Alquist-Priolo Earthquake Fault Zoning Act,<sup>39</sup> and no known fault considered to have been active during Holocene time and to have potential for surface fault rupture exists on the project site.<sup>40</sup> However, the project site is within 1,050 feet of the Hayward fault, which has a history of surface fault rupture. In addition, in a seismically active area such as the San Francisco Bay Area, there is a small chance that future faulting could occur in areas where no faults previously had been mapped. However, policies included in the General Plan and the DIPSA Specific Plan, as well as the California Building Standards Code, require the development of a site-specific geotechnical investigation which investigate evidence of active faulting on the project site. In addition, in the *California Building Industry Association v. Bay Area Air Quality Management District* case decided in 2015,<sup>41</sup> the California Supreme Court held that CEQA does not generally require lead agencies to consider how existing environmental conditions might impact a project's occupants, except where the project would significantly exacerbate an existing environmental condition. Accordingly, hazards resulting from a project that would place development in an existing or future seismic hazard area are not considered impacts under CEQA unless the project would significantly exacerbate the seismic hazard. Thus, because the project would not exacerbate risk of surface fault rupture, the proposed project would have **no impact** with regards to adverse effects from fault rupture. This topic is not addressed further in this EIR.

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<sup>39</sup> California Geologic Survey. 2003. *Earthquake Zones of Required Investigation Newark Quadrangle*. Released: July 2, 2003. Available: [https://gmw.conservation.ca.gov/SHP/EZRIM/Maps/NEWARK\\_EZRIM.pdf](https://gmw.conservation.ca.gov/SHP/EZRIM/Maps/NEWARK_EZRIM.pdf). Accessed: July 9, 2020.

<sup>40</sup> California Geologic Survey. 2003. *Earthquake Zones of Required Investigation Newark Quadrangle*. Released: July 2, 2003. Available: [https://gmw.conservation.ca.gov/SHP/EZRIM/Maps/NEWARK\\_EZRIM.pdf](https://gmw.conservation.ca.gov/SHP/EZRIM/Maps/NEWARK_EZRIM.pdf). Accessed: July 9, 2020.

<sup>41</sup> *California Building Industry Association v. Bay Area Air Quality Management District*, 62 Cal.4th 369. Opinion Filed December 17, 2015. Available: <https://caselaw.findlaw.com/ca-supreme-court/1721100.html>. Accessed: July 9, 2020.

**Potential substantial adverse effects, including the risk of loss, injury, or death involving landslides.**

As discussed under *Landslides*, the project site is relatively flat and is not within a Seismic Landslide Area as identified by the General Plan nor within an Earthquake-Induced Landslide Zone identified by the California Geological Survey. The nearest Landslide Area is approximately 0.5 mile east. Therefore, the proposed project would have **no impact** with respect to landslides. This topic is not addressed further in this EIR.

**4.5.2.4 Impacts and Mitigation Measures****Impact GEO-1: The project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking. (Less than Significant)**

As discussed under *Seismic Ground Shaking*, the project site is located in an area with the potential to experience a large earthquake in the next 30 years. Therefore, the project site is expected to experience strong to violent ground shaking during a major earthquake. However, the proposed project must comply with California Building Standards Code seismic requirements, which are established to reduce the risk to life and safety from damage to newly constructed buildings due to seismic hazards; this impact would be **less than significant**.

**Impact GEO-2: The project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismically related ground failure, including liquefaction. (Less than Significant)**

As discussed under *Seismicity and Seismic Hazards*, the project site is not located within a Liquefaction Zone identified by the California Geological Survey.<sup>42</sup> A Geotechnical Investigation prepared for a portion of the project site also noted that the project site was outside the Liquefaction Zone.<sup>43</sup> Risk of liquefaction in this area is therefore considered to be very low. The project would be required to conform with requirements of the Seismic Hazards Mapping Act of 1990, the California Building Standards Code, as well as General Plan Policy S-3.1, which mandates a geotechnical investigation be prepared for any new development, as well as DIPSA Specific Plan Environmental Policy 1, which requires a geotechnical study be conducted prior to issuance of any building permits. A site-specific geotechnical investigation would address any secondary seismic hazards associated with the proposed project, including the potential for liquefaction and associated hazards such as settlement, and identify appropriate mitigation measures to minimize risk. The proposed project would comply with recommendations in the geotechnical investigation as well as the Seismic Hazards Mapping Act of 1990 and the California Building Standards Code, which would reduce potential impacts related to settlement from liquefaction. Therefore, this impact would be **less than significant**.

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<sup>42</sup> California Geologic Survey. 2003. *Earthquake Zones of Required Investigation Newark Quadrangle*. Released: July 2, 2003. Available: [https://gmw.conservation.ca.gov/SHP/EZRIM/Maps/NEWARK\\_EZRIM.pdf](https://gmw.conservation.ca.gov/SHP/EZRIM/Maps/NEWARK_EZRIM.pdf). Accessed: July 9, 2020.

<sup>43</sup> Berlogar Stevens & Associates. 2017. *Due Diligence Level Geotechnical Investigation Airgas/Williams Mixed-Use Decoto Road and 7<sup>th</sup> Street, Union City, California*. (9399.001.000.) Pleasanton, CA, October 11, 2017.

Seismic densification can occur when strong ground shaking in loose, clean granular deposits above the water table result in ground surface settlement. As discussed above under *Soils*, soil samples taken at the project site have encountered medium to stiff soils, increasing in stiffness with depth. Therefore, the stiffness of the soils suggest that seismic densification is unlikely at the project site. However, a site specific geotechnical investigation would, as required by policies included in the General Plan and the DIPSA Specific Plan, analyze the risk of seismic densification at the project site and identify appropriate building design features to minimize that risk. The proposed project would comply with recommendations included in the geotechnical investigation, as well as the California Building Standards Code, which would reduce impacts related to settlement from seismic densification. Therefore, this impact would be ***less than significant***.

As discussed above under *Seismicity and Seismic Hazards*, the project site is not within an identified liquefaction areas and underlying soils at the project site are unlikely to liquefy during a seismic event. In addition, the project site is relatively flat with no free face nearby toward which soils could move in case of strong ground shaking. Consequently, the potential for lateral spreading at the site is low. Therefore, this impact would be ***less than significant***.

**Impact GEO-3: The project would not result in substantial soil erosion or the loss of topsoil. (Less than Significant)**

Projects which expose surface soils create the potential for erosion from wind and stormwater runoff. Potential for erosion increases if the project is located on a steep or windy site or if construction occurs during the rainy season. As discussed above under *Existing Conditions*, the 26.5-acre project site is relatively flat and is occupied by existing and vacant industrial uses, surface parking, and an agricultural field. The proposed project would demolish the existing buildings and surface parking lots and develop up to 964 new residential units in 33 buildings and one community building ranging from three to five stories tall. The proposed project would grade or disturb the entire 26.5-acre project site, generating approximately 2,175 tons of demolished building material and approximately 80,000 cubic yards (cy) of demolished trees, landscaping, soil, concrete, and asphalt. Utility trenching would excavate to a maximum depth of approximately 13.5 feet bgs. These activities would have the potential to result in soil erosion or the loss of topsoil. However, as discussed in Section 4.8, *Hydrology and Water Quality*, construction activities associated with the proposed project must comply with the National Pollutant Discharge Elimination System Construction General Permit, the Municipal Regional Permit, the Union City Municipal Code, and the General Plan, which contain standard erosion control measures and best management practices (BMPs) that would be implemented during construction to reduce erosion and loss of topsoil. Compliance with the Construction General Permit and the Union City Municipal Code requirements for a grading permit would require the use of BMPs to restrict soil erosion and sedimentation. No disturbed surfaces would be left without erosion control measures in place during the rainy season, which generally occurs between November and March. In addition to compliance with the Construction General Permit, the project would also be required to comply with the General Plan, which requires development and implementation of an Erosion Control Plan during construction. Adherence to these requirements would ensure minimal impacts regarding soil erosion or the loss of topsoil at the project site. Therefore, this impact would be ***less than significant***.

**Impact GEO-4: The project would not be located on a geologic unit or soil that is unstable, or that will become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. (Less than Significant)**

As discussed under Impact GEO-2, the project site is not located in a California Geological Survey-identified Liquefaction Zone.<sup>44</sup> The risk of liquefaction at the project site is considered to be very low. However, the project would be required to conform with Seismic Hazards Mapping Act of 1990 and the California Building Standards Code, as well as General Plan Policy S-3.1, which mandates a geotechnical investigation be prepared for any new development, as well as DIPSA Specific Plan Environmental Policy 1, which requires a geotechnical study be conducted prior to issuance of any building permits. The geotechnical investigation would provide a site-specific analysis of the potential for liquefaction at the project site and would include appropriate design features related to building foundations and grade preparations to minimize any risk resulting from liquefaction. Therefore, the risk that the proposed project would become unstable as a result of liquefaction is low. In addition, the project site is relatively flat with no free face nearby toward which soils could move. Therefore, as the potential for liquefaction is low, the potential for the proposed project to become unstable due to lateral spreading at the site is low.

As stated above under *Liquefaction*, sand boils and liquefaction-related ground fissure can occur when surface layers above the liquefiable soils are thin. As discussed under Impact GEO-2, previous tests at the project site encountered medium stiff to stiff layers of clay near the surface, and as the area is not within a Liquefaction Zone, the potential for sand boils or fissures during a seismic event is low and the risk of compression or subsidence at the project site due to weak soils is low. In addition, the site-specific geotechnical investigation required by the General Plan and the DIPSA Specific Plan, would provide analysis for the potential compressibility of soils at the project site and, if found, would include appropriate design features to minimize any resulting risk. Therefore, the risk that the proposed project would become unstable as a result of weak soils is low.

The project site is located west of the East Bay Hills within the Coast Range Geomorphic Province, in an urbanized, low-lying area of the City, and not within a Seismic Landslide Area as identified in the General Plan,<sup>45</sup> or within an Earthquake-Induced Landslide Zone identified by the California Geological Survey.<sup>46</sup> Therefore, the proposed project would not become unstable as a result of landslides. Thus, with implementation of the geotechnical investigation's recommendations, as well as compliance with the California Building Standard Code, impacts related instability in term of the location of the project would be ***less than significant***.

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<sup>44</sup> California Geologic Survey. 2003. *Earthquake Zones of Required Investigation Newark Quadrangle*. Released: July 2, 2003. Available: [https://gmw.conservation.ca.gov/SHP/EZRIM/Maps/NEWARK\\_EZRIM.pdf](https://gmw.conservation.ca.gov/SHP/EZRIM/Maps/NEWARK_EZRIM.pdf). Accessed: July 9, 2020.

<sup>45</sup> City of Union City. 2020. *Union City 2040 General Plan Update*. Adopted: December 2019. Chapter 6: Safety Element. Available: <http://www.uc2040.com/documents/>. Accessed: March 25, 2020.

<sup>46</sup> California Geologic Survey. 2003. *Earthquake Zones of Required Investigation Newark Quadrangle*. Released: July 2, 2003. Available: [https://gmw.conservation.ca.gov/SHP/EZRIM/Maps/NEWARK\\_EZRIM.pdf](https://gmw.conservation.ca.gov/SHP/EZRIM/Maps/NEWARK_EZRIM.pdf). Accessed: July 9, 2020.

**Impact GEO-5: The project would not be located on expansive soil, as defined in Section 1802.3.2 of the California Building Standards Code (2007), creating substantial direct or indirect risks to life or property. (Less than Significant)**

As discussed under *Soils*, soils within the project site have the potential to be moderate to highly expansive. Generally, projects in areas with expansive soils may require special building foundations or grade preparation, such as the removal of problematic soils and replacement with engineered soils. The project would be required to conform with California Building Standards Code, as well as General Plan Policy S-3.1, which mandates a geotechnical investigation be prepared for any new development, as well as DIPSAs Specific Plan Environmental Policy 1, which requires a geotechnical study be conducted prior to issuance of any building permits. A site-specific geotechnical investigation which would analyze the underlining soil content, address potential impacts resulting from expansive soils, and identify appropriate design features to minimize risk. The proposed project would comply with recommendations in the geotechnical investigation as well as the California Building Standards Code which would minimize impacts related to expansive soils. Therefore, this impact would be *less than significant*.

**Impact GEO-6: The project would not have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater. (No Impact)**

To serve the development, the project would connect to the existing 8-inch sewer main along L Street and the 10-inch sewer main in Bradford Way and Zwissig Way from multiple new connections, with new manholes at each of these connection points. Several storm drains are located around the perimeter of the project site, including a 21-inch storm drain in Decoto Road and a 42- to 45-inch storm drain in 7<sup>th</sup> Street. In addition, there are storm drain pipes ranging from 15 to 21 inches in Bradford Way and Zwissig Way. Therefore, the proposed project would not use a septic or alternative water disposal system and would have *no impact* related to septic-tanks or alternative wastewater supporting soils.

**Impact GEO-7: The project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. (Less than Significant with Mitigation)**

The geologic unit exposed at and below ground surface at the project site (older Quaternary alluvium [Qo]) is known to have yielded scientifically important fossils. Based on SVP methods described under *Methods for Analysis* above, this geologic unit is considered to have high paleontological sensitivity. In addition, the City considers this geologic unit to be sensitive for paleontological resources (Policy RC-4.8 in the General Plan). Because paleontological resources are located below ground surface, ground disturbance such as excavating, grading, and resurfacing could affect any paleontological resources present, including destruction of the resource. Potential impacts on paleontological resources can be divided into impacts from project construction and project operation.

Construction of the project would involve ground-disturbing activities. Specifically, as discussed in Chapter 3, *Project Description*, the project would require disturbing an area of approximately 26.5 acres during construction, and utility trenches would be excavated to a maximum depth of approximately 13.5 feet below ground surface. Therefore, project construction would disturb a geologic unit with high paleontological sensitivity and accordingly has potential to destroy unique paleontological resources. This impact would be significant.

Mitigation Measure GEO-7 requires a qualified paleontologist to prepare a Paleontology Monitoring and Mitigation Plan (PMMP) prior to initial ground disturbance on paleontologically sensitive geologic units consistent with Policy RC-4.8. Implementation of Mitigation Measure GEO-7 would minimize impacts on paleontological resources by requiring training to enable construction personnel to recognize potential fossils unearthed during grading and excavation activities and paleontological monitoring to provide an additional mode for recognizing the presence of paleontological resources. Implementation of Mitigation Measure GEO-7 would reduce the potential for destroying unique paleontological resources by ensuring that resources are recognized during project construction and preserved for scientific study, and this impact would be ***less than significant with mitigation***.

Project operation would not involve ground-disturbing activities and therefore would have ***no impact***.

#### **Mitigation Measure GEO-7: Paleontological Monitoring and Mitigation Plan**

Prior to initial ground disturbance in previously undisturbed strata of geologic units with high sensitivity, the applicant shall retain a Qualified Paleontologist, as defined by the Society of Vertebrate Paleontology, to direct all mitigation measures related to paleontological resources and design a Paleontological Mitigation and Monitoring Program (PMMP) for the proposed project. The PMMP shall include measures for a preconstruction survey, a training program for construction personnel, paleontological monitoring, fossil salvage, curation, and final reporting, as applicable.

### **Cumulative Impacts**

#### **Impact C-GEO-1: The project, in combination with past, present, and reasonably foreseeable future projects, would not result in a significant cumulative impact on geology, soils, and paleontology. (Less than Significant)**

Although regional geographies can be similar, in general, the cumulative geographic context for geology, soils and paleontology is the project site. The approach to cumulative impacts is described in Section 4, *Environmental Impact Analysis*.

Depending on subsurface conditions, slopes, and other factors, each cumulative project would require different levels of grading, cut-and-fill, and excavation. In addition, each cumulative project would be required to comply with General Plan, DIPSA Specific Plan, and California Building Standards Code requirements, which would require that a site-specific geotechnical investigation be prepared which would include design recommendations to reduce each cumulative project's impacts. Similar seismic safety standards would apply to the cumulative projects.

Furthermore, like the project, the cumulative projects would be required to comply with Policy RC-4.8 in the General Plan, which requires a qualified paleontologist to prepare a PMMP prior to initial ground disturbance on paleontologically sensitive geologic units.

For these reasons, the proposed project, in combination with other past, present, and reasonably foreseeable future projects, would not result in a significant cumulative impact on geology, soils, and paleontological resources. The cumulative impact would be ***less than significant***.





## 4.6 Greenhouse Gas Emissions

This section describes the environmental and regulatory setting for greenhouse gas (GHG) emissions. It also describes impacts associated with GHG emissions that would result from implementation of the proposed project and mitigation for significant impacts where feasible and appropriate.

No comments regarding GHG emissions were received in response to the Notice of Preparation (NOP).

### 4.6.1 Existing Conditions

#### 4.6.1.1 Environmental Setting

##### Global Climate Change

The process known as the *greenhouse effect* keeps the atmosphere near Earth's surface warm enough for the successful habitation of humans and other life forms. The greenhouse effect is created by sunlight that passes through the atmosphere. Some of the sunlight striking Earth is absorbed and converted to heat, which warms the surface. The surface emits a portion of this heat as infrared radiation, some of which is re-emitted toward the surface by GHGs. Human activities that generate GHGs increase the amount of infrared radiation absorbed by the atmosphere, thus enhancing the greenhouse effect and amplifying the warming of Earth.

Increases in fossil fuel combustion and deforestation have exponentially increased concentrations of GHGs in the atmosphere since the Industrial Revolution.<sup>1</sup> Rising atmospheric concentrations of GHGs in excess of natural levels result in increasing global surface temperatures—a process commonly referred to as *global warming*. Higher global surface temperatures, in turn, result in changes to Earth's climate system, including increased ocean temperature and acidity, reduced sea ice, variable precipitation, and increased frequency and intensity of extreme weather events.<sup>2</sup> Large-scale changes to Earth's system are collectively referred to as *climate change*.

The Intergovernmental Panel on Climate Change (IPCC) was established by the World Meteorological Organization and United Nations Environment Programme to assess scientific, technical, and socioeconomic information relevant to the understanding of climate change, its potential impacts, and options for adaptation and mitigation. The IPCC estimates that human-induced warming reached approximately 1 degree Celsius (°C) above pre-industrial levels in 2017, increasing at 0.2°C per decade. Under the current nationally determined contributions of mitigation from each country until 2030, global warming is expected to rise to 3°C by 2100, with warming to continue afterward.<sup>3</sup> Large increases in global temperatures could have substantial adverse effects on the natural and human environments worldwide and in California.

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<sup>1</sup> Intergovernmental Panel on Climate Change (IPCC). 2007. Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Available: [https://www.ipcc.ch/site/assets/uploads/2018/05/ar4\\_wg1\\_full\\_report-1.pdf](https://www.ipcc.ch/site/assets/uploads/2018/05/ar4_wg1_full_report-1.pdf). Accessed: March 17, 2020.

<sup>2</sup> Intergovernmental Panel on Climate Change (IPCC). 2018. *Global Warming of 1.5°C. Contribution of Working Group I, II, and III (Summary for Policy Makers)*. Available: [https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15\\_SPM\\_version\\_report\\_LR.pdf](https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15_SPM_version_report_LR.pdf). Accessed: March 16, 2020.

<sup>3</sup> Ibid.

## Greenhouse Gases

The principle anthropogenic (human-made) GHGs contributing to global warming are carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), and fluorinated compounds, including sulfur hexafluoride (SF<sub>6</sub>), hydrofluorocarbons (HFCs), and perfluorocarbons. Water vapor, the most abundant GHG, is not included in this list because its natural concentrations and fluctuations far outweigh its anthropogenic sources.

The primary GHGs of concern associated with the project are CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O. Principal characteristics of these pollutants are discussed below.

**Carbon dioxide** enters the atmosphere through fossil fuels (oil, natural gas, and coal) combustion, solid waste decomposition, plant and animal respiration, and chemical reactions (e.g., manufacture of cement). CO<sub>2</sub> is also removed from the atmosphere (or *sequestered*) when it is absorbed by plants as part of the biological carbon cycle.

**Methane** is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and from the decay of organic waste in municipal solid waste landfills.

**Nitrous oxide** is emitted during agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste.

Methods have been set forth to describe emissions of GHGs in terms of a single gas to simplify reporting and analysis. The most commonly accepted method to compare GHG emissions is the global warming potential (GWP) methodology defined in IPCC reference documents. IPCC defines the GWP of various GHG emissions on a normalized scale that recasts all GHG emissions in terms of carbon dioxide equivalent (CO<sub>2</sub>e), which compares the gas in question to that of the same mass of CO<sub>2</sub> (CO<sub>2</sub> has a global warming potential of 1 by definition).

Table 4.6-1 lists the global warming potential of CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O and their lifetimes in the atmosphere.

**Table 4.6-1. Lifetimes and Global Warming Potentials of Key Greenhouse Gases**

Greenhouse Gas	Global Warming Potential (100 years)	Lifetime (years)
Carbon Dioxide (CO <sub>2</sub> )	1	— <sup>a</sup>
Methane (CH <sub>4</sub> )	25	12
Nitrous Oxide (N <sub>2</sub> O)	298	114

Source: California Air Resources Board. 2020a. *GHG Global Warming Potentials*. Available: <https://ww2.arb.ca.gov/ghg-gwps>. Accessed: March 16, 2020.

<sup>a</sup> No lifetime (years) for carbon dioxide was presented by CARB.

The California Air Resources Board (CARB) recognizes the importance of short-lived climate pollutants (described in *Regulatory Setting*) and reducing these emissions to achieve the State's overall climate change goals. Short-lived climate pollutants have atmospheric lifetimes on the order of a few days to a few decades, and their relative climate forcing impacts, when measured in terms of

how they heat the atmosphere, can be tens, hundreds, or even thousands of times greater than that of CO<sub>2</sub>.<sup>4</sup> Recognizing their short-term lifespan and warming impact, short-lived climate pollutants are measured in terms of CO<sub>2e</sub> using a 20-year time period. The use of GWPs with a time horizon of 20 years better captures the importance of the short-lived climate pollutants and gives a better perspective on the speed at which emission controls will impact the atmosphere relative to CO<sub>2</sub> emission controls. The *Short-Lived Climate Pollutant Reduction Strategy* (SLCP Reduction Strategy), which is discussed in *Regulatory Setting*, addresses methane, hydrofluorocarbon gases, and anthropogenic black carbon. Methane has lifetime of 12 years and a 20-year GWP of 72. HFC gases have lifetimes of 1.4 to 52 years and a 20-year GWP of 437 to 6,350. Anthropogenic black carbon has a lifetime of a few days to weeks and a 20-year GWP of 3,200.<sup>5</sup>

## Greenhouse Gas Reporting

A GHG inventory is a quantification of all GHG emissions and sinks<sup>6</sup> within a selected physical and/or economic boundary. GHG inventories can be performed on a large scale (e.g., for global and national entities) or on a small scale (e.g., for a building or person). Although many processes are difficult to evaluate, several agencies have developed tools to quantify emissions from certain sources. Table 4.6-2 outlines the most recent global, national, statewide, and local GHG inventories to help contextualize the magnitude of potential project-related emissions.

**Table 4.6-2. Global, National, State, and Regional Greenhouse Gas Emission Inventories**

<b>Emissions Inventory</b>	<b>Carbon Dioxide Equivalent (CO<sub>2e</sub>) (metric tons)</b>
2010 IPCC Global GHG Emission Inventory	52,000,000,000
2018 Environmental Protection Agency National GHG Emissions Inventory	6,677,000,000
2017 CARB State GHG Emissions Inventory	424,100,000
2015 Bay Area Air Quality Management District GHG Emissions Inventory	85,000,000
2005 Union City Inventory	342,297

Sources:

Bay Area Air Quality Management District. 2017a. *Final 2017 Clean Air Plan*. Adopted April 19. Available: [https://www.baaqmd.gov/~/\\_media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a-proposed-final-cap-vol-1-pdf.pdf?la=en](https://www.baaqmd.gov/~/_media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a-proposed-final-cap-vol-1-pdf.pdf?la=en). Accessed: March 16, 2020.

California Air Resources Board. 2020b. 2000-2017 *Trends Figure Data*. Available: <https://ww2.arb.ca.gov/ghg-inventory-data>. Accessed: March 16, 2020.

Intergovernmental Panel on Climate Change. 2014. *Climate Change Synthesis Report*. Available: [https://www.ipcc.ch/site/assets/uploads/2018/02/SYR\\_AR5\\_FINAL\\_full.pdf](https://www.ipcc.ch/site/assets/uploads/2018/02/SYR_AR5_FINAL_full.pdf). Accessed: March 16, 2020.

City of Union City. 2010. *Union City Climate Action Plan*. Adopted November. Available: <https://www.unioncity.org/DocumentCenter/View/708/Union-City-Climate-Action-Plan-PDF?bidId=>. Accessed: March 16, 2020.

U.S. Environmental Protection Agency. 2020. *Draft Inventory of U.S. Greenhouse Gas Emissions and Sinks (1990-2018)*. Last updated February 2020. Available: <https://www.epa.gov/sites/production/files/2020-02/documents/us-ghg-inventory-2020-main-text.pdf>. Accessed: March 16, 2020.

<sup>4</sup> California Air Resources Board. 2017. *Short-Lived Climate Pollutant Reduction Strategy*. Available: [https://ww2.arb.ca.gov/sites/default/files/2018-12/final\\_slcp\\_report%20Final%202017.pdf](https://ww2.arb.ca.gov/sites/default/files/2018-12/final_slcp_report%20Final%202017.pdf). Accessed: March 16, 2020.

<sup>5</sup> Ibid.

<sup>6</sup> A GHG sink is a process, activity, or mechanism that removes a GHG from the atmosphere.

## Potential Climate Change Effects

Climate change is a complex process that has the potential to alter local climatic patterns and meteorology. Although modeling indicates that climate change will result in sea level rise (both globally and regionally) as well as changes in climate and rainfall, among other effects, there remains uncertainty about characterizing precise local climate characteristics and predicting precisely how various ecological and social systems will react to any changes in the existing climate at the local level. Regardless of this uncertainty, it is widely understood that substantial climate change is expected to occur in the future, although the precise extent will take further research to define. Specifically, significant impacts from global climate change worldwide and in California include the following.

- Declining sea ice and mountain snowpack levels, thereby increasing sea levels and sea surface evaporation rates with a corresponding increase in atmospheric water vapor, due to the atmosphere's ability to hold more water vapor at higher temperatures.<sup>7</sup>
- Rising average global sea levels primarily due to thermal expansion and the melting of glaciers, ice caps, and the Greenland and Antarctic ice sheets.<sup>8</sup>
- Changing weather patterns, including changes to precipitation and wind patterns, and more energetic aspects of extreme weather including droughts, heavy precipitation, heat waves, extreme cold, and the intensity of tropical cyclones.<sup>9</sup>
- Declining Sierra Mountains snowpack levels, which account for approximately half of the surface water storage in California, by 70 percent to as much as 90 percent over the next 100 years.<sup>10</sup>
- Increasing the number of days conducive to ozone formation (e.g., clear days with intense sun light) by 25 percent to 85 percent (depending on the future temperature scenario) by the end of the 21st century in high ozone areas.<sup>11</sup>
- Increasing the potential for erosion of California's coastlines and seawater intrusion into the Sacramento Delta and associated levee systems due to the rise in sea level.<sup>12</sup>
- Exacerbating the severity of drought conditions in California such that durations and intensities are amplified, ultimately increasing the risk of wildfires and consequential damage incurred.<sup>13</sup>
- Under changing climate conditions, agriculture is projected to experience lower crop yields due to extreme heat waves, heat stress and increased water needs of crops and livestock (particularly during dry and warm years), and new and changing pest and disease threats.<sup>14</sup>

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<sup>7</sup> California Natural Resources Agency. 2018. *California's Fourth Climate Change Assessment Statewide Summary Report*. Available: <https://www.energy.ca.gov/sites/default/files/2019-07/Statewide%20Reports-%20SUM-CCCA4-2018-013%20Statewide%20Summary%20Report.pdf>. Accessed: March 16, 2020.

<sup>8</sup> Intergovernmental Panel on Climate Change (IPCC). 2018. *Global Warming of 1.5°C. Contribution of Working Group I, II, and III (Summary for Policy Makers)*. Available: [https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15\\_SPM\\_version\\_report\\_LR.pdf](https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15_SPM_version_report_LR.pdf). Accessed: March 16, 2020.

<sup>9</sup> Ibid.

<sup>10</sup> California Natural Resources Agency. 2018. *California's Fourth Climate Change Assessment Statewide Summary Report*. Available: <http://www.climateassessment.ca.gov/state/docs/20190116-StatewideSummary.pdf>. Accessed: March 16, 2020.

<sup>11</sup> Ibid.

<sup>12</sup> Ibid.

<sup>13</sup> Ibid.

<sup>14</sup> Ibid.

- The impacts of climate change, such as increased heat-related events, droughts, and wildfires, pose direct and indirect risks to public health, as people will experience earlier death and worsening illnesses. Indirect impacts on public health include increased vector-borne diseases, stress and mental trauma due to extreme events and disasters, economic disruptions, and residential displacement.<sup>15</sup>

#### 4.6.1.2 Regulatory Setting

##### International

In 2015, the 21st session of the Conference of Parties (COP21) took place in Paris, France. The session included representatives from 196 parties to the United Nations Framework Convention on Climate Change. The outcomes from the Paris Agreement at COP21 include limiting global temperature increase well below 2°C, establishing binding commitments by all parties to make Nationally Determined Contributions (NDC) and to pursue domestic policies aimed at achieving NDCs, and regular reporting by all countries on their emissions and progress made in implementing and achieving their NDCs. In April 2016, 174 states and the European Union signed the agreement, including the United States. However, on November 4, 2019, President Donald Trump formally notified the United Nations that the United States would withdraw from the Paris Agreement. The United States has begun the 1-year process to exiting the deal, which can occur no sooner than November 2020.

The Under2 Coalition is an international coalition of jurisdictions that signed the Global Climate Leadership Memorandum of Understanding (Under2 MOU) following President Trump's decision to withdraw from the Paris Agreement. The Under2 MOU aims to limit global warming to 2°C, to limit GHGs to below 80 to 95 percent below 1990 levels, and/or achieve a per capita annual emissions goal of less than 2 metric tons by 2050. The Under2 MOU has been signed or endorsed by 135 jurisdictions (including California) that represent 32 countries and 6 continents.

##### Federal

There is currently no federal overarching law specifically related to climate change or the reduction of GHG emissions. Under the Obama administration, the U.S. Environmental Protection Agency (EPA) had been developing regulations under the Clean Air Act (CAA). There have also been settlement agreements between EPA, several states, and nongovernmental organizations to address GHG emissions from electric generating units and refineries, as well as the EPA's issuance of an "Endangerment Finding" and a "Cause or Contribute Finding." EPA has also adopted a Mandatory Reporting Rule and Clean Power Plan. Under the Clean Power Plan, EPA issued regulations to control CO<sub>2</sub> emissions from new and existing coal-fired power plants. However, on February 9, 2016, the Supreme Court issued a stay of these regulations pending litigation. Former EPA Administrator Scott Pruitt also signed a measure to repeal the Clean Power Plan. The fate of the proposed regulations is uncertain given the change in federal administrations and the pending deliberations in federal courts.

The National Highway Traffic Safety Administration (NHTSA) sets the Corporate Average Fuel Economy (CAFE) standards to improve the average fuel economy and reduce GHG emissions generated by cars and light-duty trucks. NHTSA and EPA have proposed amendments to the current

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<sup>15</sup> Ibid.

fuel efficiency standards for passenger cars and light-duty trucks and new standards covering model years 2021 through 2026. Under the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule), current standards would be maintained through 2026. California, 22 other states, the District of Columbia, and two cities filed suit against the proposed action on September 20, 2019.<sup>16</sup> The lawsuit requests a “permanent injunction prohibiting Defendants from implementing or relying on the Preemption Regulation,” but does not stay its implementation during legal deliberations. Part 1 of the SAFE Vehicles Rule went into effect on November 26, 2019. Part 2 of the Rule was finalized on March 30, 2020. The SAFE Vehicles Rule will decrease the stringency of CAFE standards to 1.5 percent each year through model year 2026, as compared with the standards issued in 2012, which would have required about 5 percent annual increases.

## State

California has adopted statewide legislation to address various aspects of climate change and GHG emissions. Much of this legislation establishes a broad framework for the State’s long-term GHG reduction and climate change adaptation program. The State’s governors have also issued several executive orders (EOs) related to the State’s evolving climate change policy. Of particular importance are Assembly Bill (AB) 32 and Senate Bill (SB) 32, which outline the State’s GHG reduction goals of achieving 1990 emissions levels by 2020 and a level 40 percent below 1990 emissions levels by 2030. In the absence of federal regulations, control of GHGs is generally regulated at the State level. It is typically approached by setting emission reduction targets for existing sources of GHGs, setting policies to promote renewable energy and increase energy efficiency, and developing statewide action plans. Summaries of key policies, legal cases, regulations, and legislation at the State level that are relevant to the proposed project are identified below.

### Assembly Bill 1493

With the passage of AB 1493, also known as Pavley I, in 2002, California launched an innovative and proactive approach to dealing with GHG emissions and climate change at the State level. AB 1493 requires CARB to develop and implement regulations to reduce automobile and light-duty truck GHG emissions. These stricter emissions standards were designed to apply to automobiles and light-duty trucks beginning with the model year 2009. Although litigation challenged these regulations and the EPA initially denied California’s related request for a waiver, the waiver request was granted.<sup>17</sup> Additional strengthening of the Pavley standards (referred to previously as *Pavley II* and now referred to as the *Advanced Clean Cars* measure) was adopted for vehicle model years 2017–2025 in 2012. Together, the two standards are expected to increase average fuel economy to roughly 54.5 miles per gallon in 2025.

### Executive Order S-3-05

On June 1, 2005, Governor Arnold Schwarzenegger signed EO S-3-05. The goal of this EO was to reduce California’s GHG emissions to 1) 2000 levels by 2010 (achieved); 2) 1990 levels by 2020; and 3) 80 percent below the 1990 levels by 2050. EO S-3-05 also calls for the California Environmental Protection Agency to prepare biennial science reports on the potential impact of continued global

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<sup>16</sup> *California et al. v. United States Department of Transportation et al.*, 1:19-cv-02826, U.S. District Court for the District of Columbia,

<sup>17</sup> As noted above, however, California’s waiver to set state-specific standards is currently uncertain as a result of the SAFE Vehicles Rule.

warming on certain sectors of the California economy. As a result of the scientific analysis presented in these biennial reports, a comprehensive Climate Adaptation Strategy was released in December 2009 following extensive interagency coordination and stakeholder input. The latest of these reports, the *Climate Action Team Biennial Report*, was published in December 2010.

### **Executive Order S-01-07**

With EO S-01-07, Governor Schwarzenegger set forth the low carbon fuel standard (LCFS) for California in 2007. Under this EO, the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by 2020.

### **Executive Order B-55-18**

EO B-55-18 acknowledges the environmental, community, and public health risks posed by future climate change. It further recognizes the climate stabilization goal adopted by 194 states and the European Union under the Paris Agreement. Although the United States was not party to the agreement, California is committed to meeting the Paris Agreement goals and going beyond them wherever possible. Based on the worldwide scientific agreement that carbon neutrality must be achieved by midcentury, EO B-55-18 establishes a new State goal to achieve carbon neutrality as soon as possible, and no later than 2045, and to achieve and maintain net negative emissions thereafter. The EO charges the CARB with developing a framework for implementing and tracking progress towards these goals. This EO extends EO S-3-05, but is binding only on State agencies.

### **Assembly Bill 32**

One goal of EO S-03-05 was further reinforced by AB 32 (Chapter 488, Statutes of 2006), the Global Warming Solutions Act of 2006, which requires the State to reduce GHG emissions to 1990 levels by 2020. Since AB 32 was adopted, CARB, the California Energy Commission (CEC), the California Public Utilities commission (CPUC), and the Building Standards Commission have been developing regulations that will help meet the goals of AB 32. Under AB 32, CARB is required to prepare a Scoping Plan and update it every five years. The original Scoping Plan was approved in 2008, the First Scoping Plan Update was approved in 2014, and an additional update was approved in 2017 (see discussion of SB 32 below). CARB's *2017 Climate Change Scoping Plan* identifies specific measures to reduce GHG emissions to 1990 levels by 2020, and requires CARB and other State agencies to develop and enforce regulations and other initiatives for reducing GHGs.<sup>18</sup> Specifically, the *2017 Climate Change Scoping Plan* articulates a key role for local governments, recommending they establish GHG reduction goals for both their municipal operations and the community consistent with those of the State. In 2018, CARB announced that inventory year 2016 emissions had dropped below 1990 levels, which would be an achievement of the AB 32 goal if emissions continue on their current trajectory.<sup>19</sup>

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<sup>18</sup> California Air Resources Board. 2017. *California's 2017 Climate Change Scoping Plan*. November. Accessed: [https://ww3.arb.ca.gov/cc/scopingplan/scoping\\_plan\\_2017.pdf](https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf). Accessed: March 17, 2020.

<sup>19</sup> California Air Resources Board. 2018. *Climate pollutants fall below 1990 levels for the first time*. Available: <https://ww2.arb.ca.gov/news/climate-pollutants-fall-below-1990-levels-first-time>. Accessed: April 23, 2020.

**Assembly Bill 939 (1989) and Assembly Bill 341 (2011)**

To minimize the amount of solid waste that must be disposed of in landfills, the State Legislature passed the California Integrated Waste Management Act of 1989 (AB 939), effective January 1990. According to AB 939, all cities and counties were required to divert 25 percent of all solid waste from landfill facilities by January 1, 1995, and 50 percent by January 1, 2000. Through other statutes and regulations, this 50 percent diversion rate also applies to State agencies. In order of priority, waste reduction efforts must promote source reduction, recycling and composting, and environmentally-safe transformation and land disposal.

In 2011, AB 341 modified the California Integrated Waste Management Act and directed the California Department of Resources Recycling and Recovery (CalRecycle) to develop and adopt regulations for mandatory commercial recycling. The resulting Mandatory Commercial Recycling Regulation (2012) requires that on and after July 1, 2012, certain businesses that generate 4 cubic yards or more of commercial solid waste per week must arrange recycling services. To comply with this requirement, businesses may either separate recyclables and self-haul them or subscribe to a recycling service that includes mixed-waste processing. AB 341 also established a statewide recycling goal of 75 percent; the 50 percent disposal reduction mandate still applies for cities and counties under AB 939.

**Senate Bill 97**

SB 97 required the Governor's Office of Planning and Research (OPR) to develop recommended amendments to the California Environmental Quality Act (CEQA) guidelines for addressing GHG emissions. The amendments became effective on March 18, 2010.

**Senate Bill 350—De Leon (Clean Energy and Pollution Reduction Act of 2015)**

SB 350 was approved by the California legislature in September 2015 and signed by Governor Brown in October 2015. Its key provisions are to require the following by 2030: 1) a renewables portfolio standard of 50 percent and 2) a doubling of energy efficiency (electrical and natural gas) by 2030, including improvements to the efficiency of existing buildings. These mandates will be implemented by future actions of the CPUC and CEC.

**Senate Bill 375**

SB 375, signed into law by Governor Schwarzenegger on September 30, 2008, became effective January 1, 2009. This law requires the State's 18 Metropolitan Planning Organizations to develop the sustainable communities strategies (SCS) as part of their regional transportation plans (RTPs) through integrated land use and transportation planning, and to demonstrate an ability to attain the GHG emissions reduction targets that the CARB established for the region by 2020 and 2035. This would be accomplished through either the financially constrained SCS as part of the RTP or an unconstrained alternative planning strategy. If regions develop integrated land use, housing, and transportation plans that meet the SB 375 targets, new projects in these regions can be relieved of certain CEQA review requirements.<sup>20</sup>

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<sup>20</sup> The project does not qualify for streamlined CEQA review because it is not a mixed-used and transit priority project.



**Senate Bills 1078, 107, and 2**

SBs 1078 (2002), 107 (2006) and 2 (2011), known collectively as California's Renewables Portfolio Standard (RPS), obligates investor-owned utilities, energy service providers, and Community Choice Aggregators to procure additional retail sales per year from eligible renewable sources with the long-range target of procuring 33 percent of retail sales from renewable resources by 2020. The CPUC and CEC are jointly responsible for implementing the program.

**Senate Bill 32 and Assembly Bill 197**

SB 32 (2016) requires CARB to ensure that statewide GHG emissions are reduced to at least 40 percent below the 1990 level by 2030, consistent with the target set forth in EO B-30-15. The companion bill to SB 32, AB 197, creates requirements to form a Joint Legislative Committee on Climate Change Policies, requires CARB to prioritize direct emission reductions and consider social costs when adopting regulations to reduce GHG emissions beyond the 2020 statewide limit, requires CARB to prepare reports on sources of GHGs and other pollutants, establishes 6-year terms for voting members of CARB, and adds two legislators as non-voting members of CARB. CARB adopted the *2017 Climate Change Scoping Plan* in November 2017 to meet the GHG reduction requirement set forth in SB 32. This updated Scoping Plan includes various elements, including doubling energy efficiency savings, increasing the LCFS from 10 to 18 percent, adding 4.2 million zero-emission vehicles on the road, implementing the Sustainable Freight Strategy, implementing a post-2020 Cap-and-Trade Program, creating walkable communities with expanded mass transit and other alternatives to traveling by car, and developing an Integrated Natural and Working Lands Action Plan to protect land-based carbon sinks.

**Senate Bill 605 and Senate Bill 1383**

SB 605 directed CARB, in coordination with other State agencies and local air districts, to develop a comprehensive SLCP Reduction Strategy. SB 1383 directed CARB to approve and implement the SLCP Reduction Strategy to achieve the following reductions in SLCPs.

- 40 percent reduction in CH<sub>4</sub> below 2013 levels by 2030
- 40 percent reduction in HFC gases below 2013 levels by 2030
- 50 percent reduction in anthropogenic black carbon below 2013 levels by 2030
- The bill also establishes the following targets for reducing organic waste in landfills and CH<sub>4</sub> emissions from dairy and livestock operations as follows:
  - 50 percent reduction in organic waste disposal from the 2014 level by 2020
  - 75 percent reduction in organic waste disposal from the 2014 level by 2025
  - 40 percent reduction in CH<sub>4</sub> emissions from livestock manure management operations and dairy manure management operations below the dairy sector's and livestock sector's 2013 levels by 2030

CARB and CalRecycle are currently developing regulations to achieve the organic waste reduction goals under SB 1383. In January 2019 and June 2019, CalRecycle proposed new and amended regulations in Titles 14 and 27 of the California Code of Regulations. Among other things, the regulations set forth minimum standards for organic waste collection, hauling, and composting. The final regulations will take effect on or after January 1, 2022.

### **Short-Lived Climate Pollutant Reduction Strategy**

CARB adopted the SLCP Reduction Strategy in March 2017 as a framework for achieving the CH<sub>4</sub>, HFC, and anthropogenic black carbon reduction targets set by SB 1383. The SLCP Reduction Strategy includes 10 measures to SLCPs, which fit within a wide range of ongoing planning efforts throughout the State, including CARB's and CalRecycle's proposed rulemaking on organic waste diversion (discussed above).

#### **Senate Bill 100**

The State's existing RPS requires all retail sellers to procure a minimum quantity of electricity products from eligible renewable energy resources so that the total kilowatt-hours of those products sold to their retail end-use customers achieve the following.

- 25 percent of retail sales by December 31, 2016 (achieved)
- 33 percent by December 31, 2020
- 40 percent by December 31, 2024
- 45 percent by December 31, 2027
- 50 percent by December 31, 2030

SB 100 revises and extends these renewable resource targets to 50 percent by December 31, 2026, 60 percent December 31, 2030, and 100 percent by December 31, 2045.

#### **Senate Bill 743**

SB 743 requires revisions to the CEQA Guidelines that establish new impact analysis criteria for the assessment of a project's transportation impacts. The intent behind SB 743 and revising the CEQA Guidelines is to integrate and better balance the needs of congestion management, infill development, active transportation, and GHG emissions reduction. OPR recommends that vehicle miles traveled (VMT) serve as the primary analysis metric, replacing the existing criteria of delay and level of service. In 2018, OPR released a technical advisory outlining potential VMT significance thresholds for different project types. For example, it would be reasonable to conclude that projects within a half mile of an existing major transit stop or an existing stop along a high-quality transit corridor and retail projects of less than 50,000 square feet would have a less-than-significant transportation impact. The new VMT methodology is required as of July 1, 2020, though it can be used earlier.

#### **Senate Bill X7-7**

SB X7-7, the Water Conservation Act of 2009, sets an overall goal of reducing per-capita urban water use by 20 percent by December 31, 2020. The State is required to make incremental progress toward this goal by reducing per-capita water use by at least 10 percent by December 31, 2015. This is an implementing measure of the Water Sector in the *2017 Climate Change Scoping Plan* that will continue to be implemented beyond 2020. Reduction in water consumption reduces the energy necessary and the associated emissions to convey, treat, and distribute the water; it also reduces emissions from wastewater treatment.

#### **Green Building Code and Title 24 Updates**

The California Green Building Standards Code (CALGreen) (proposed Part 11, Title 24) was adopted as part of the California Building Standards Code (24 California Code of Regulations). Part 11 established voluntary standards that became mandatory under the 2010 edition of the code. These

involved sustainable site development, energy efficiency (in excess of California Energy Code requirements), water conservation, material conservation, and internal air contaminants. The current energy efficiency standards were adopted in 2019 and took effect on January 1, 2020.

## Local

### Metropolitan Transportation Commission

The Metropolitan Transportation Commission (MTC) is the Metropolitan Planning Organization for the nine counties that comprise the San Francisco Bay Area and the San Francisco Bay Area Air Basin (SFBAAB), which includes the City of Union City. The first per-capita GHG emissions reduction targets for the SFBAAB were seven percent by 2020 and 15 percent by 2035 from 2005 levels. MTC adopted an SCS as part of their RTP for the SFBAAB in 2013 known as *Plan Bay Area*. The plan exceeds the regional per-capita targets, achieving 10 percent and 16 percent reduction in per capita GHG emissions by 2020 and 2035, respectively.<sup>21</sup> On July 26, 2017, the strategic update to this plan, known as *Plan Bay Area 2040*, was adopted by the Association of Bay Area Governments (ABAG) and the MTC. As a limited and focused update, *Plan Bay Area 2040* builds upon the growth pattern and strategies developed in the original *Plan Bay Area* but with updated planning assumptions that incorporate key economic, demographic, and financial trends since 2013.<sup>22</sup> As required by SB 375, CARB updated the per-capita GHG emissions reduction targets in 2018. The new targets will be addressed in MTC's forthcoming RTPs and are a 10 percent per capita GHG reduction by 2020 and 19 percent per capita reduction by 2035 from 2005 levels.<sup>23</sup> The next update to *Plan Bay Area*, *Plan Bay Area 2050*, is currently in its early stages of planning and will outline the strategies for growth and investment through the year 2050.

### Bay Area Air Quality Management District

As discussed in Chapter 4.1, *Air Quality*, of this Draft Environmental Impact Report (EIR), the Bay Area Air Quality Management District (BAAQMD) is responsible for air quality planning within the SFBAAB, including projects in the City. The BAAQMD has adopted advisory emission thresholds to assist CEQA lead agencies in determining the level of significance of a project's GHG emissions, including long range plans (e.g., general plans, specific plans), which are outlined in its *California Environmental Quality Act: Air Quality Guidelines* (CEQA Guidelines).<sup>24</sup> The CEQA Guidelines also outline methods for quantifying GHG emissions, as well as potential mitigation measures. As discussed in Section 4.1, *Air Quality*, the BAAQMD has also adopted air quality plans to protect the

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<sup>21</sup> Metropolitan Transportation Commission and Association of Bay Area Governments. 2013. *Plan Bay Area*. Adopted July 18. Available: <http://files.mtc.ca.gov/library/pub/28536.pdf>. Accessed: March 16, 2020.

<sup>22</sup> Metropolitan Transportation Commission and Association of Bay Area Governments. 2017. *Plan Bay Area 2040*. Adopted July 26. Available: [http://2040.planbayarea.org/cdn/ff/buje2Q801oUV3Vpib-FoJ6mkOfWC9S9sgrSgJrwFBgo/1510696833/public/2017-11/Final\\_Plan\\_Bay\\_Area\\_2040.pdf](http://2040.planbayarea.org/cdn/ff/buje2Q801oUV3Vpib-FoJ6mkOfWC9S9sgrSgJrwFBgo/1510696833/public/2017-11/Final_Plan_Bay_Area_2040.pdf). Accessed: March 16, 2020.

<sup>23</sup> California Air Resources Board. 2020c. *SB 375 Regional Plan Climate Targets*. Available: <https://ww2.arb.ca.gov/our-work/programs/sustainable-communities-program/regional-plan-targets>. Accessed: March 16, 2020.

<sup>24</sup> Bay Area Air Quality Management District. 2017b. *California Environmental Quality Act. Air Quality Guidelines*. May. Available: [https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa\\_guidelines\\_may2017-pdf.pdf?la=en](https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en). Accessed: March 16, 2020.

climate, including the *2017 Clean Air Plan: Spare the Air, Cool the Climate*.<sup>25</sup> The *2017 Clean Air Plan* outlines feasible measures to reduce GHGs to 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050.

### **City of Union City 2040 General Plan**

The *2040 Union City General Plan* (General Plan) includes the following goals and policies associated with greenhouse gas emissions.<sup>26</sup>

**Goal RC-6 and RC-7:** The City shall continue to promote programs and initiatives that support and maximize energy conservation and the use of renewable energy in Union City.

**Policy RC-6.1: Reduced Energy Consumption.** The City shall support measures to reduce energy consumption and increase energy efficiency in residential, commercial, industrial, and public buildings.

**Policy RC-6.2: Renewable Energy.** The City shall promote efforts to increase the use of renewable energy resources, including but not limited to, wind, solar, hydropower, and biomass and the use of battery storage within the community and City operations, where feasible.

**Policy RC-6.3: Solar Technology on Private Buildings.** The City shall encourage the incorporation of solar panels and other solar technology on parking structures and residential, industrial, and commercial buildings.

**Policy RC-6.7: Green Building.** The City shall encourage new development to adopt and incorporate green building features included in the CALGreen Tier 1 checklist in project designs and shall consider future amendments to the Municipal Code to adopt CALGreen Tier 1 requirements consistent with the State building code.

**Policy RC-6.8: Zero Net Energy.** The City shall encourage Zero Net Energy building design for new residential and non-residential construction projects and consider future amendments to the Municipal Code to adopt ZNE requirements consistent with the State building code.

**Policy RC-7.2: Climate Action Plan Implementation.** The City shall continue implementing climate action plan (CAP) measures and prioritize implementation actions that result in the greatest reduction in GHG emissions with the least amount of implementation costs, as financially feasible.

**Policy RC-7.5: GHG Reduction in New Development.** The City shall reduce greenhouse gas emissions from new development by encouraging development that lowers vehicle miles traveled (VMT); discouraging auto-dependent development patterns; promoting development that is compact, mixed-use, pedestrian friendly, and transit oriented; promoting energy-efficient building design and site planning; improving the jobs/housing ratio; and other methods of reducing emissions.

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<sup>25</sup> Bay Area Air Quality Management District. 2017a. *Final 2017 Clean Air Plan*. Adopted April 19. Available: [https://www.baaqmd.gov/~/\\_media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a\\_-proposed-final-cap-vol-1-pdf.pdf?la=en](https://www.baaqmd.gov/~/_media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en). Accessed: March 16, 2020.

<sup>26</sup> Union City. 2019. *U2040 General Plan*. Adopted December 10.

## Union City Climate Action Plan

The *Union City Climate Action Plan* was adopted in 2010 and set a long-term goal of reducing GHG emissions 20 percent below 2005 levels by 2020. The CAP identifies emission reduction strategies in the land use, transportation, buildings and energy, waste, water, and green infrastructure sectors. Strategies include supporting transit-oriented development, promoting alternative modes of transportation, reducing energy and water consumption, increasing waste diversion, and expanding the urban forest. The CAP includes 21 primary measures. The measures that are most relevant to the project include those listed below.<sup>27</sup>

- LU-1.1. Continue supporting transit-oriented development in the Intermodal Station District and adjacent areas.
- LU-2.1. Enhance existing neighborhood-serving commercial centers in the city.
- T-1.1. Continue buildout (goal of 25 percent buildout), to the extent feasible, of the Pedestrian and Bicycle Master Plan by 2020.
- T-2.1. Provide transit priority and express routes on the Alvarado-Niles and Whipple corridors.
- E-1.1. Develop a comprehensive energy efficiency program that provides outreach, financing, and other forms of assistance to homeowners.
- E-2.1. Work with PG&E to promote existing household appliance upgrades.
- WC-1.1. Water Efficient Landscape Ordinance.
- WC-1.2. Indoor and Outdoor Non-potable Water Systems Program.
- WR-1.1. Increase waste diversion target to 90 percent.
- GI-1.1. Expand the urban forest to sequester carbon and reduce building energy consumption.

## 4.6.2 Environmental Impacts

### 4.6.2.1 Thresholds of Significance

California Environmental Quality Act (CEQA) Guidelines Appendix G (14 California Code of Regulations [CCR] 15000 et seq.) identifies significance criteria to be considered for determining whether a project could have significant impacts related to GHG emissions. Would the project result in:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

State CEQA Guidelines Section 15064.4 provides guidance to lead agencies for determining the significance of environmental impacts pertaining to GHG emissions. State CEQA Guidelines Section 15064.4(a) states that a lead agency should make a good-faith effort that is based, to the extent

<sup>27</sup> Union City. 2010. *Union City Climate Action Plan*. November. Available: <https://www.unioncity.org/DocumentCenter/View/708/Union-City-Climate-Action-Plan-PDF?bidId=>. Accessed: March 16, 2020.

possible, on scientific and factual data to describe, calculate, or estimate the amount of GHG emissions that would result from implementation of a project. State CEQA Guidelines Section 15064.4(b) also states that, when assessing the significance of impacts from GHG emissions, a lead agency should consider 1) the extent to which the project may increase or reduce GHG emissions compared with existing conditions, 2) whether the project's GHG emissions would exceed a threshold of significance that the lead agency has determined to be applicable to the project, and 3) the extent to which the project would comply with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

The California Supreme Court's decision in *Center for Biological Diversity et al. vs. California Department of Fish and Wildlife, the Newhall Land and Farming Company* (62 Cal.4th 204) confirmed that there are multiple potential pathways for evaluating GHG emissions consistent with CEQA. Several air quality management agencies throughout the State have also drafted or adopted varying threshold approaches and guidelines for analyzing GHG emissions in CEQA documents. Common threshold approaches include 1) compliance with a qualified GHG reduction strategy, 2) numeric "bright-line" thresholds, 3) efficiency-based thresholds, 4) performance-based reductions,<sup>28</sup> and 5) compliance with regulatory programs.

The BAAQMD's CEQA Guidelines do not identify a GHG emission threshold for construction-related emissions. Instead, the BAAQMD recommends that GHG emissions from construction be quantified and disclosed, and that a determination regarding the significance of these GHG emissions be made with respect to whether a project is consistent with the emission reduction goals. The BAAQMD further recommends incorporation of best management practices (BMPs) to reduce GHG emissions during construction, as feasible and applicable. This approach is used to evaluate construction-generated emissions.

The City has not adopted a qualified GHG reduction strategy to address post-2020 emissions and, thus tiering per State CEQA Guidelines Section 15183.5 is not an applicable option to assess the proposed project's GHG impacts. There are no adopted numeric GHG thresholds for land use projects, but the BAAQMD has adopted a stationary source threshold. There are no adopted efficiency-based metrics or performance-based thresholds that are applicable to the proposed project. Therefore, this analysis evaluates stationary source GHG emissions against the BAAQMD's stationary source threshold and all other operational GHG impacts based on compliance with regulatory programs, which is recognized by the Supreme Court as an acceptable pathway for evaluating project-level GHG emissions under CEQA (62 Cal.4th 204). Where applicable, the analysis considers guidance issued by CARB (2019) and OPR (2018). The most applicable regulatory programs, policies, and thresholds recommended by the BAAQMD, CARB, and OPR, are described further below.

The proposed project is assumed to be fully operational beginning 2025. The State has a reduction goal of carbon neutrality set by EO B-55-18. However, the State's goal has not been codified in law, and neither the State nor the City has adopted a plan or framework to achieve the 2045 reduction goal. The State's 2030 target has been codified in law through SB 32, and the *2017 Climate Change Scoping Plan*<sup>29</sup> was adopted to meet this goal. Therefore, 2030 marks the next statutory statewide milestone

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<sup>28</sup> Performance-based thresholds are based on a percentage reduction from a projected future condition; for example, reducing future Business As Usual (BAU) emissions to meet the SB 32 target (40 percent below 1990 levels) through a combination of State measures, project design features (e.g., renewable energy), or mitigation.

<sup>29</sup> California Air Resources Board. 2017. *California's 2017 Climate Change Scoping Plan*. November. Accessed: [https://ww3.arb.ca.gov/cc/scopingplan/scoping\\_plan\\_2017.pdf](https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf). Accessed: March 17, 2020.

target applicable to the proposed project. The analysis focuses on the 2030 target and the plans, policies, and regulations adopted pursuant to achieving 2030 reductions. Operational emissions generated by the proposed project at full buildout (i.e., 2025) are used as an indicator for long-term emissions reduction progress and are evaluated as they relate to the proposed project's impacts on the State's long-term goal expressed under EO B-55-18. Where applicable, guidance from CARB, OPR, and other agencies related to long-term emissions reduction requirements is incorporated into the analysis.

- **Mobile sources:** CARB's *2017 Climate Change Scoping Plan* recognizes that, although vehicle technologies and low-carbon fuels will continue to reduce transportation sector emissions, VMT reductions are necessary to achieve California's long-term GHG reduction target. Recent OPR guidance outlined screening thresholds for land use projects, which includes consideration of transit proximity. According to OPR, projects proposed within a half mile of an existing major transit stop or an existing stop along a high-quality transit corridor would have a less-than-significant impact on VMT (Near Transit Stations threshold). In addition, retail uses smaller than 50,000 square feet can be considered local-serving uses and presumed to have a less-than-significant impact on VMT. CARB further states that compliance with regulatory programs (e.g., AB 1493, LCFS, SB 743, and SB 375) would also be required to reduce the statewide mobile GHG emissions for a less-than-significant impact.<sup>30</sup> Additional details are discussed in *Regulatory Setting* and Section 4.14, *Transportation*.
- **Energy, water, waste, area, and land sources.** CARB's *2017 Climate Change Scoping Plan*, which relies heavily on State programs (e.g., Title 24 and SB 100), outlines strategies required to reduce statewide GHG emissions in order to achieve California's SB 32 reduction target.<sup>31</sup> Projects that implement applicable strategies from the *2017 Climate Change Scoping Plan* would be consistent with the State's GHG reduction framework and requirements for these sectors. Accordingly, a sector-by-sector review of the respective project features and sustainability measures included in the proposed project is provided to evaluate consistency with the *2017 Climate Change Scoping Plan*. This assessment also considers recent OPR guidance<sup>32</sup> related to the long-term reduction of statewide emissions. Accordingly, impacts from energy, water, waste, area, and land use source emissions would be considered less than significant if the proposed project consistent is with all applicable *2017 Climate Change Scoping Plan* strategies and supporting regulations and guidance.
- **Stationary sources.** BAAQMD has adopted a threshold of 10,000 metric tons CO<sub>2</sub>e for stationary source projects.<sup>33</sup> This threshold is consistent with stationary source thresholds adopted by other air quality management districts throughout the State. The threshold level is intended to

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<sup>30</sup> California Air Resources Board. 2019. *2017 Scoping Plan-Identified VMT Reductions and Relationship to State Climate Goals*. January. Available: [https://ww2.arb.ca.gov/sites/default/files/2019-01/2017\\_sp\\_vmt\\_reductions\\_jan19.pdf](https://ww2.arb.ca.gov/sites/default/files/2019-01/2017_sp_vmt_reductions_jan19.pdf). Accessed: March 17, 2020.

<sup>31</sup> California Air Resources Board. 2017. *California's 2017 Climate Change Scoping Plan*. November. Accessed: [https://ww3.arb.ca.gov/cc/scopingplan/scoping\\_plan\\_2017.pdf](https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf). Accessed: March 17, 2020.

<sup>32</sup> California Air Resources Board. 2019. *2017 Scoping Plan-Identified VMT Reductions and Relationship to State Climate Goals*. January. Available: [https://ww2.arb.ca.gov/sites/default/files/2019-01/2017\\_sp\\_vmt\\_reductions\\_jan19.pdf](https://ww2.arb.ca.gov/sites/default/files/2019-01/2017_sp_vmt_reductions_jan19.pdf). Accessed: March 17, 2020.

<sup>33</sup> Bay Area Air Quality Management District. 2017b. *California Environmental Quality Act. Air Quality Guidelines*. May. Available: [https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa\\_guidelines\\_may2017-pdf.pdf?la=en](https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en). Accessed: March 16, 2020.

capture 95 percent of all GHG emissions from new permit applications from stationary sources in the air basin and would do so by capturing only the large, significant projects since permit applications with emissions above the 10,000 metric tons CO<sub>2</sub>e threshold account for less than 10 percent of applications. The emergency generators included as part of the proposed project would be permitted sources, and as such, the BAAQMD's 10,000 metric tons CO<sub>2</sub>e threshold is appropriate for analyzing the significance of emissions generated by the generators. Stationary source emissions would be considered less than significant if emissions are less than 10,000 metric tons CO<sub>2</sub>e.

#### 4.6.2.2 Methods for Analysis

As described in Section 4, *Environmental Impact Analysis*, subsequent to the drafting of this EIR, the applicant indicated that the residential units associated with proposed project would increase by 10, from 964 to 974 units. As described therein, the analysis presented throughout this EIR adequately accounts for the potential environmental impacts of the 974 new residential units.

##### Construction Emissions

The proposed project would generate construction-related GHG emissions from mobile and stationary construction equipment exhaust, employee and haul truck vehicle exhaust, electricity consumption, and tree removal. GHG emissions from construction of the proposed project and offsite improvements were estimated using the California Emissions Estimator Model (CalEEMod)(version 2016.3.2) and Roadway Construction Emissions Model (RCEM) (version 9.0), respectively. The construction schedule and material quantities data were provided by the project sponsor. Model defaults for equipment operating details, trip numbers, and lengths were reviewed and confirmed by the project sponsor and used for the analysis. **Appendix 4.1** includes the construction modeling inputs and CalEEMod outputs.

##### Operational Mobile Source Emissions

GHG emissions from motor vehicles traveling to and from the project site were evaluated using CARB's EMFAC2017 model and traffic data provided by Fehr & Peers. Traffic data included daily VMT and daily trips for with-project conditions. Emissions from gasoline light duty vehicles were adjusted to account for the impact of the implementation of the SAFE Vehicles Rule.

To determine the GHG emissions (i.e., vehicle movement/travel), GHG emissions from running exhaust were calculated by multiplying the VMT estimates by the appropriate emission factors from the EMFAC2017 model. These emissions were added to process emissions, such as emissions generated from vehicle starts, running losses, etc. Project GHG emissions were calculated by multiplying the quantity of the project's annual VMTs by the appropriate emission factors from the EMFAC2017 model. **Appendix 4.1** includes the EMFAC2017 model emission factors and traffic data used for this analysis.

##### Operational Area, Energy, Stationary, Water, and Waste Emissions

Area, energy, stationary water, and waste emissions were estimated using CalEEMod (version 2016.3.2). Landscaping equipment, which include gasoline-powered landscaping equipment (e.g., trimmers), is the primary area source of GHG emissions. Area source emissions are based on CalEEMod's default assumptions, which represent a conservative estimate of equipment usage based on square footage of new building space and the corresponding landscaped area. Energy sources include the combustion of natural gas for building heating and hot water, as well as the use



and generation of electricity. Stationary sources include emergency generators. Water consumption results in indirect GHG emissions from the conveyance and treatment of water. Waste generation results in fugitive CH<sub>4</sub> and N<sub>2</sub>O emissions from the decomposition of organic matter.

Emissions were quantified for with-project conditions, and the modeling results reflect implementation of State measures to reduce GHG emissions (e.g., SB 100, Pavley II). Quantifiable features required for compliance with CALGreen (i.e., low-flow fixtures) were incorporated into the CalEEMod model. CalEEMod default data for area, energy, water, and waste were assumed based on the anticipated land uses identified. In addition, the model accounts for reductions in GHG emissions through sequestration resulting from the proposed project's net increase in trees. **Appendix 4.1** includes the CalEEMod output files.

### 4.6.2.3 Impacts and Mitigation Measures

**Impact GHG-1a: The proposed project could generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment during construction. (Less than Significant with Mitigation)**

Demolition and construction activities for the project would result in the temporary generation of GHG emissions. Emissions would originate from mobile and stationary construction equipment exhaust and employee and haul truck vehicle exhaust. Construction-related GHG emissions from each specific source vary substantially depending on the level of activity, length of the construction period, specific construction operations, types of equipment, and number of personnel.

Construction activities for the proposed project include the demolition of existing structures and parking lots, on-site and off-site improvements, and building construction. These activities would require mobile and stationary construction equipment and on-road vehicles, such as haul trucks for demolition debris removal and vendor trucks for deliveries. Site grading and excavation would be required for building foundations, utility infrastructure, and landscaping.

The estimated construction GHG emissions are presented in Table 4.6-3, which estimates that construction would generate approximately 6,594 metric tons of CO<sub>2</sub>e for the total construction period between 2021 and 2025. Emissions would range from a minimum of 739 MT CO<sub>2</sub>e (in 2025) to a maximum of 1,815 MT CO<sub>2</sub>e (in 2022).

**Table 4.6-3. Estimated Construction GHG Emissions from the Proposed Project (metric tons)<sup>a</sup>**

Construction Year	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
2021	1,119	<1	<1	1,125
2022	1,815	<1	<1	1,821
2023	1,601	<1	<1	1,604
2024	1,300	<1	<1	1,303
2025	739	<1	<1	742
Total <sup>b</sup>	6,575	1	<1	6,594

Source: See **Appendix 4.1** for CalEEMod model outputs and construction energy calculations.

Notes: CO<sub>2</sub> = carbon dioxide; CH<sub>4</sub> = methane; N<sub>2</sub>O = nitrous oxide

<sup>a</sup> Emissions represent the sum of emissions from the CalEEMod construction output and energy consumption (approximately 166,188 kilowatt-hours per year) during construction.

<sup>b</sup> Values may not total due to rounding.

As described above, the BAAQMD has not established a quantitative threshold for assessing construction-related GHG emissions. Rather, the air district recommends evaluating whether construction activities would conflict with statewide emission reduction goals and implementing feasible BMPs. If a project does not implement feasible BMPs, it is anticipated that it would conflict with statewide emission goals and construction-related GHG emission impacts would be **significant**. Therefore, Mitigation Measure GHG-1a, Require Implementation of BAAQMD-recommended BMPs, would be implemented to avoid any conflict with statewide emission reduction goals. Consequently, the impact from construction-related GHG emissions would be **less than significant with mitigation**.

#### **Mitigation Measure GHG-1a: Require Implementation of BAAQMD-recommended Construction BMPs**

The project sponsor shall require their contractors, as a condition of contracts (e.g., standard specifications), to reduce construction-related GHG emissions by implementing BAAQMD's recommended best management practices, including (but not limited to) the following measures (based on BAAQMD's CEQA Guidelines<sup>34</sup>). The project applicant shall submit evidence of compliance to the City prior to permit issuance.

- Ensure alternative fueled (e.g. biodiesel, electric) construction vehicles/equipment make up at least 15 percent of the fleet
- Use local building materials of at least 10 percent (sourced from within 100 miles of the Planning Area)
- Recycle and reuse at least 50 percent of construction waste or demolition materials

#### **Impact GHG-1b: The proposed project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment during operation. (Less than Significant)**

Operation of proposed project would generate direct and indirect GHG emissions. Sources of direct emissions include mobile vehicle trips, emergency generators, natural gas combustion, and landscaping activities. Indirect emissions would be generated by electricity consumption, waste and wastewater generation, and water use. Operational GHG emissions were evaluated under the project condition with full buildout in 2025. The analysis accounts for benefits achieved by compliance with CALGreen (i.e., installation of low-flow fixtures) and implementation of quantifiable State measures that will reduce GHG emissions (e.g., SB 100). Table 4.6-4 presents the results of the operational modeling analysis.

The project site is assumed to be currently vacant; thus, there would be no emissions generated for the existing conditions at the project site, and the entire quantity of the proposed project's GHG emissions conservatively represent the net increase in GHG emissions. This assumption is presumed to be conservative, because there may be GHG emissions associated with the existing site. Although the site is vacant, any energy consumed at or trips made to and from the existing site would constitute existing sources of emissions that would no longer be present once project construction begins.

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<sup>34</sup> Bay Area Air Quality Management District. 2017b. *California Environmental Quality Act. Air Quality Guidelines*. May. Available: [https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa\\_guidelines\\_may2017-pdf.pdf?la=en](https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en). Accessed: March 16, 2020.

**Table 4.6-4. Estimated Operational GHG Emissions from the Proposed Project (metric tons)**

Condition/Source	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
<b>Project<sup>a</sup></b>				
Area	89	<1	<1	89
Energy	838	<1	<1	846
Land Use Sequestration <sup>b</sup>				-472
Mobile	11,219	<1	<1	11,410
Stationary	1	<1	<1	1
Waste	97	6	<1	239
Water	37	2	<1	91
<i>Project Total<sup>c</sup></i>	12,280	8	<1	12,205

Source: See **Appendix 4.1**.

Notes: CO<sub>2</sub> = carbon dioxide; CH<sub>4</sub> = methane; N<sub>2</sub>O = nitrous oxide

<sup>a</sup> The analysis accounts for benefits achieved by compliance with CALGreen (i.e., installation of low-flow fixtures) and implementation of quantifiable State measures that will reduce GHG emissions (e.g., SB 100).

<sup>b</sup> The proposed project would result in a net increase in trees resulting in sequestration. This is an emissions benefit over the 20-year tree growing period.

<sup>c</sup> Values may not total due to rounding.

The proposed project would result in approximately 12,205 metric tons of CO<sub>2</sub>e annually. The following sections present the sector-by-sector analysis of GHG impacts, consistent with OPR, CARB, and the BAAQMD guidance. Project features outlined in the sections below would be confirmed during the project approval process (i.e., site development approval).

### Area Emissions

As shown in Table 4.6-4, annual emissions associated with area sources would be approximately 89 metric tons of CO<sub>2</sub>e. The surfaces at the project site would consist of the residential and commercial buildings, sidewalks and streets, and landscaping. Landscaping at the project site, which would include trees and drought-tolerant plants, as opposed to reduce grassed areas, would minimize the routine use of mowers and other landscaping equipment.

There are no relevant measures in the *2017 Climate Change Scoping Plan* for landscaping equipment. While the inevitable transition away from fossil fuel equipment would be needed to achieve carbon neutrality by 2045, the *2017 Climate Change Scoping Plan* did not assume all electric landscaping equipment in their 2030 reduction analysis. This is consistent with the *2017 Climate Change Scoping Plan's* overall goal of reducing emissions from fossil-fueled landscaping equipment. Additionally, the landscaping emissions would be associated with tree maintenance. As discussed previously and in more detail below, the proposed project would increase the number of trees on site by 667, which would result in sequestration (i.e., negative emissions). The occurrence of landscaping emissions is thus partially supplemental to the achievement of emissions sequestration.

### Energy Emissions

As shown in Table 4.6-4, annual building energy emissions, which accounts for the State's renewable energy portfolio per in 2025 per SB 100, would be 846 metric tons of CO<sub>2</sub>e. OPR's 2018 *CEQA and Climate Change Advisory* recommends that a land use development project that "achieves applicable building energy efficiency standards, uses no natural gas or other fossil fuels, and includes Energy

Star appliances where available, may be able to demonstrate a less-than-significant greenhouse gas impact associated with project operation.” Although OPR recommends new buildings do not consume fossil fuels, the *2017 Climate Change Scoping Plan* does not assume all electric buildings in their 2030 reduction analysis. Rather, the *2017 Climate Change Scoping Plan* assumes new gas appliances will be high efficiency.

The proposed project would consume both electricity and natural gas. Electricity-related emissions would be mitigated through compliance with the *2017 Climate Change Scoping Plan* through SB 100. Per SB 100, electricity generation will become progressively less carbon-intensive until 100 percent renewable energy is achieved in 2045. In addition, the proposed project would install Energy Star appliances and electric charging stations. Though the proposed project would allow for natural gas appliance and heating, all units would meet high-efficiency standards, consistent with the assumptions and emissions reduction requirements of the *2017 Climate Change Scoping Plan* for 2030. These efforts are consistent with the *2017 Climate Change Scoping Plan*'s overall goal of reducing energy emissions from buildings consuming fossil fuels.

### **Land Use Emissions**

The proposed project would remove approximately 42 existing trees and replace approximately 709 trees (for a net increase of 667 trees). This is anticipated to result in an emissions benefit of approximately 472 metric ton of CO<sub>2e</sub> from sequestration over the 20-year growing period for the new trees. There are no relevant measures in the *2017 Climate Change Scoping Plan* or explicit regulatory requirements related to tree planting, but the net increase in trees is consistent with *2017 Climate Change Scoping Plan*'s overall goal of avoiding losses in carbon sequestration.

### **Mobile Source Emissions**

As shown in Table 4.6-4, annual mobile source emissions would be approximately 11,410 metric tons of CO<sub>2e</sub> per year. This increase is primarily driven by the additional VMTs expected as a result of the proposed project that would occur from new vehicle trips going to and from the project site. As discussed in Section 4.14, *Transportation*, the proposed project would meet the Near Transit Stations screening threshold. In addition, the proposed project may include approximately 30,800 sf of commercial space that is considered local serving. The proposed project would be subject to regulatory programs related to fuel and vehicle efficiency and vehicle electrification, all of which would result in emissions reductions. As such, the proposed project would meet OPR's Near Transit Stations and retail use screening thresholds and would result in a less-than-significant VMT impact. Therefore, the project would not conflict with the State's long-term emission reduction trajectory.

### **Stationary Source Emissions**

As shown in Table 4.6-4, stationary sources (i.e., the proposed emergency diesel and electric generators) would generate approximately 1 metric ton of CO<sub>2e</sub> annually. This net increase is substantially below the BAAQMD's stationary source threshold of 10,000 metric tons of CO<sub>2e</sub> per year.

### **Waste Emissions**

As shown in Table 4.6-4, annual waste emissions associated with waste would be approximately 239 metric tons of CO<sub>2e</sub>. The proposed project would provide triple bins and accommodate composting, consistent with the provisions listed in Chapter 7.04, Solid Waste Management of the

Union City Municipal Code,<sup>35</sup> which would reduce the amount of organic waste that would decompose in landfills and generate CH<sub>4</sub>. Annual emissions presented would be worst-case since some waste would be composted instead. The proposed project would also comply with the City's recycling and waste reduction programs. These project features are consistent with the *2017 Climate Change Scoping Plan's* overall goal of reducing waste emissions and its specific strategy to avoid landfill CH<sub>4</sub> emissions by reducing the disposal of landfilled waste and organics. These features would thus support and comply with the mandatory recycling requirement in AB 341 and support the State's recycling goal.

### Water Emissions

As shown in Table 4.6-4, annual water emissions, which accounts for benefits achieved by compliance with CALGreen (i.e., installation of low-flow fixtures) would be approximately 91 metric tons of CO<sub>2</sub>e. The proposed project would install water conserving appliances (e.g., dishwashers and washing machines), consistent with residential voluntary CALGreen specifications, and provide information to residences and businesses advising methods to conserve water. Outdoor water conservation measures include installation and maintenance of water-efficient landscaping with low-usage plant material to minimize irrigation requirements, consistent with the City's water efficient landscape ordinance. Furthermore, the proposed project would comply with all applicable water conservation (indoor and outdoor) measures, including Title 24, Part 6, California Energy Code baseline standard requirements for energy efficiency, based on the 2019 Energy Efficiency Standards requirements, California Department of Water Resources' Model Water Efficient Landscape Ordinance, and CALGreen. These features are consistent with the *2017 Climate Change Scoping Plan's* overall goal of reducing water emissions and serve to support ongoing regulatory programs (e.g., SB X7-7 and Title 24) that aim to reduce GHG emissions associated with conveying water and distributing water to ultimately achieve climate neutrality.

### Conclusion

As noted above, stationary source emissions would be well below BAAQMD's stationary source threshold. Similarly, the proposed project's features and sustainability measures are consistent with applicable policies from the *2017 Climate Change Scoping Plan* and regulatory programs for the area, energy, water, and waste sectors. The proposed project would replace removed trees and plant additional trees for a net increase in trees, and thus be consistent with *2017 Climate Change Scoping Plan's* overall goal of avoiding losses in carbon sequestration. In addition, the proposed project meets Near Transit Stations and retail use screening thresholds and would be subject to regulatory programs related to fuel and vehicle efficiency and vehicle electrification, all of which would result in emissions reductions consistent with the *2017 Climate Change Scoping Plan*. Therefore, operational GHG impacts would be ***less than significant***.

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<sup>35</sup> The Solid Waste Management Chapter of the municipal code can be found at the following link:  
[https://qcode.us/codes/unioncity/view.php?topic=7-7\\_04&showAll=1&frames=off](https://qcode.us/codes/unioncity/view.php?topic=7-7_04&showAll=1&frames=off)

**Impact GHG-2: The proposed project could conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. (Less than Significant with Mitigation)**

**AB 32, SB 32, EO-S-3-05, and EO B-55-18**

AB 32 and SB 32 outline the State's GHG emissions reduction targets for 2020 and 2030, respectively. Although not legislatively adopted, EO S-03-05 establishes the State's long-term goal to reduce GHG emissions 80 percent from 1990 levels by 2050. EO B-55-18 sets a more ambitious State goal of net zero GHG emissions by 2045.

In 2008 and 2014, CARB adopted the original Scoping Plan and First Update, respectively, as a framework for achieving AB 32. The Scoping Plan and First Update outline a series of technologically feasible and cost-effective measures to reduce statewide GHG emissions. CARB adopted the *2017 Climate Change Scoping Plan* in November 2017 as a framework to achieve the 2030 GHG reduction goal described in SB 32. There is no State plan for addressing GHG reductions beyond 2030.

Based on CARB's *2017 Climate Change Scoping Plan*, many of the reductions needed to meet the 2030 target will come from State regulations, including cap-and-trade, the requirement for increased renewable energy sources in California's energy supply, updates to Title 24, and increased emission reduction requirements for mobile sources. The *2017 Climate Change Scoping Plan* indicates that reductions would need to come in the form of changes pertaining to vehicle emissions and mileage standards, changes related to sources of electricity and increased energy efficiency at existing facilities, and State and local plans, policies, or regulations that will lower GHG emissions relative to business-as-usual conditions. The *2017 Climate Change Scoping Plan* carries forward GHG reduction measures from the First Update, as well as new potential measures to help achieve the State's 2030 target across all sectors of the California economy, including transportation, energy, and industry.

GHG emissions generated by the construction activities would be short term and would cease once construction is complete. As discussed under Impact GHG-1a, implementation of Mitigation Measure GHG-1a, Require Implementation of BAAQMD-recommended Construction Best Management Practices, would result in less-than-significant impacts during construction. Therefore, construction activities under the project would not conflict with or obstruct implementation of an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. This impact would be ***less than significant with mitigation.***

As discussed above, stationary source emissions would be below the BAAQMD's stationary source threshold. In addition, the proposed project would be consistent with the *2017 Climate Change Scoping Plan's* overall goal of avoiding losses in carbon sequestration given the proposed increase in trees. The proposed project would meet OPR's Near Transit Stations and retail use screening thresholds and would be subject to regulatory programs related to fuel and vehicle efficiency and vehicle electrification, resulting in a less-than-significant impact in the mobile source sector. The proposed project would also implement sustainability measures, including Energy Star and high-efficiency appliances, waste diversion programs, and water reduction features that are consistent with the *2017 Climate Change Scoping Plan* and would reduce GHG emissions and associated impacts from area, energy, water, and waste sources to less than significant levels. These reductions would assist the State with meeting its GHG reduction goals and would thus not conflict with any adopted statewide plans. Therefore, GHG impacts of the proposed project operations would be ***less than significant.***

## SB 375 and Plan Bay Area

Climate protection and transportation system effectiveness are two of seven goals addressed in MTC's *Plan Bay Area* (2013 and 2040). *Plan Bay Area* provides a long-range framework to minimize transportation impacts on the environment, improve regional air quality, protect natural resources, and reduce GHG emissions. The plan supports smart growth principles, promotes infill development, and proactively links land use, air quality, and transportation needs in the region. *Plan Bay Area* is consistent with SB 375, which requires MTC to adopt an SCS that outlines policies to reduce per capita GHG emissions from automobiles and light trucks. The SCS policies include a mix of strategies that encourage compact growth patterns, alternative transportation, transit, mobility and access, network expansion, and transportation investment.

Implementation of the SCS is intended improve the efficiency of the transportation system and achieve a variety of land use types throughout the Bay Area that meet market demands in a balanced and sustainable manner. The proposed project would be consistent with SCS policies and strategies described above, as the proposed project would promote a transit/pedestrian/bicycle-friendly environment. Specifically, the proposed project would also improve connectivity between project residents and the existing bus stops along Decoto Road and 7<sup>th</sup> Street, expand the bicycle network within the project, and encourage walking within the project area by improving pedestrian crossing distances by providing bulb-outs on all street corners. These features would support alternative transportation within the project site, which could help reduce per capita GHG emissions from passenger vehicles consistent with *Plan Bay Area*. In addition, the proposed project would allow development that helps accommodate forecasted growth within the project site. The project site's land use will be consistent with MTC's land use designation in the pending *Plan Bay Area 2050* update. Thus, the proposed project would be consistent with the goals of SB 375 and *Plan Bay Area*, and this impact would be ***less than significant***.

## Consistency with Other State Regulations

Systemic changes will be required at the State level to achieve California's future GHG reduction goals. Regulations such as future amendments to the LCFS, future updates to the State's Title 24 standards, and implementation of the State's SLCP Reduction Strategy, including forthcoming regulations for composting and organics diversion, will be necessary to attain the magnitude of reductions required for the State's goals. The proposed project would be required to comply with these regulations in new construction (in the case of updated Title 24 standards), or would be directly affected by the outcomes (vehicle trips and energy consumption would be less carbon intensive due to statewide compliance with future LCFS amendments and increasingly stringent RPS). Thus, for the foreseeable future, the proposed project would not conflict with any other State-level regulations pertaining to GHGs in the post-2020 era, and this impact would be ***less than significant***.

## Consistency with City General Plan and Climate Action Plan

The City's General Plan includes goals and policies pertaining to GHG emissions, shown above in *Regulatory Setting* (Local), such as reducing energy consumption (Policy RC-6.1), encouraging green building infrastructure (Policies RC-6.3, RC-6.7, RC-6.8), and reducing GHG emissions in new development (Policy RC-7.5). Similarly, the CAP identifies GHG emissions reduction strategies, also discussed above in *Regulatory Setting* (Local), such as supporting transit-oriented development (LU-1.1, LU-2.1), promoting alternative modes of transportation (T-1.1, T-2.1), reducing energy and water consumption (E-1.1, E-2.1, WC-1.1, WC-1.2), increasing waste diversion (WR-1.1), and expanding the urban forest (GI-1.1).

Though the City's CAP does not address post-2020 emissions generated by the proposed project when it becomes fully operational in 2025, the proposed project would not conflict with its GHG reduction strategies. More specifically, the proposed project would include green building techniques, as well as energy efficiency, water conservation, and waste reduction measures. In addition, the proposed project would promote a transit/pedestrian/bicycle-friendly environment that would support GHG reductions from mobile sources. The proposed project would also result in a net increase in trees and expand the City's urban forest. Thus, the project is consistent with the City's General Plan goals and policies related to GHG emissions and would not conflict with strategies outlined in the City's CAP to support GHG emissions reductions. Therefore, this impact would be *less than significant*.

## Cumulative Impacts

Climate change is a global problem and GHGs are global pollutants, unlike criteria air pollutants (such as ozone precursors), which are primarily pollutants of regional and local concern. Given the long atmospheric lifetimes of GHGs, GHGs emitted by many sources worldwide accumulate in the atmosphere. No single emitter of GHGs is large enough to trigger global climate change on its own. Rather, climate change is the result of the individual contributions of countless past, present, and future sources. Thus, GHG impacts are inherently cumulative, and the analysis above is inclusive of cumulative impacts.



## 4.7 Hazards and Hazardous Materials

This section describes the environmental and regulatory setting for hazards and hazardous materials. It also describes impacts on hazards and hazardous materials that would result from implementation of the project and mitigation for significant impacts where feasible and appropriate. This section is partially based on the Environmental Data Resources (EDR) Radius Map Report with GeoCheck prepared for the project (**Appendix 4.7**).

In response to the Notice of Preparation (NOP), comments were received that identified concerns with groundwater well protection/destruction and existing hazardous material contamination. The comments are addressed in the environmental analysis discussion in this section.

### 4.7.1 Existing Conditions

A hazardous material is any substance that, because of its quantity, concentration, or physical or chemical properties, may pose a hazard to human health or the environment. Under California Code of Regulations (CCR) Title 22, the term “hazardous substance” refers to both hazardous materials and hazardous wastes. Both of these are classified according to four properties: (1) toxicity, (2) ignitability, (3) corrosivity, and (4) reactivity (CCR Title 22, Chapter 11, and Article 3). A hazardous material is defined in CCR Title 22 as:

[a] substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed (CCR Title 22 Section 66260.10).

Hazardous materials in various forms can result in death, serious injury, long-lasting health effects, or damage to buildings, homes, and other property. Hazards to human health and the environment can occur during the production, storage, transportation, use, or disposal of hazardous materials.

#### 4.7.1.1 Environmental Setting

The project site is currently occupied by existing and vacant industrial uses, surface parking lots, asphalt or concrete storage lots, a roadway, and railroad spur improvements. Vacant unpaved areas, including agricultural, annual grassland, landscaped, and ruderal areas are also present.




### Hazardous Materials




#### Previous Environmental Investigations

The project site has a history of contamination and has undergone a series of environmental investigations. Several reports documenting findings have been made available to ICF, as summarized below. Site investigations were conducted for different portions of the project site and were performed at various times. The 2019 *All Appropriate Inquires Report* is summarized separately. Figure 4.7-1 shows the areas covered by the most relevant documents summarized below. The numbers in the Figure 4.7-1 correspond to Tables 4.7-1 and 4.7-2.

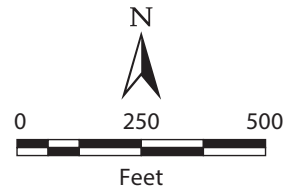


**Legend**

-  Project Site
-  2019 All Appropriate Inquires Report, Project 3-8
-  2017 Phase I Environmental Site Assessment and Phase II Assessment, Union City Properties
-  2016 Phase I Environmental Site Assessment, Zwissig Way Parcels

-  2015 Phase II Environmental Site Assessment and 2016 Phase I Environmental Site Assessment Update— Associated with the 33955 7th Street
-  On-Site Contaminated Listings
-  Off-Site Contaminated Listings

*Note: See Tables 4.7-1 and 4.7-2 for details regarding the on-site and off-site contaminated listings.*



Source: ICF 2020

ICF Graphics...00011.19 (5/27/20) AB



**Figure 4.7-1  
Previous On-Site Environmental Investigations and  
Contaminated Listings in the Project Vicinity**

The **2019 All Appropriate Inquires Report, Project 3-8 (Project Area 3-8)** covers assessor's parcel numbers (APNs) 87-21-5-2, 87-21-13-2, 87-21-13-1, 87-21-4-2, 87-23-10, 87-23-13, and 87-23-14, which are associated with a portion of the AirGas (previously known as Air Liquide) site at 700 Decoto Road, along with the 33945 7<sup>th</sup> Street, Railroad, Shelton Property, and 33955 7<sup>th</sup> Street sites. RPS Group developed the All Appropriate Inquires (AAI) report, which also included a *Phase I Environmental Site Assessment* (Phase I ESA). The purpose of the AAI and Phase I ESA was to identify recognized environmental conditions (RECs) associated with the parcels listed above. The AAI report used information found during previous on-site investigations in its analysis of environmental conditions. Therefore, some of the conclusions bulleted below overlap with other reports summarized in this section.

The 2019 AAI report identified the following RECs associated with the parcels in question.

- **Acetone Underground Storage Tank Open Release Case:** Groundwater impacts from a 5,000 -gallon underground storage tank (UST) for acetone at the no longer operating AirGas facility prompted oversight from the Alameda County Water District (ACWD) and San Francisco Bay Regional Water Quality Control Board (RWQCB). Remediation efforts included regular groundwater monitoring. Based on groundwater monitoring and 2017 Phase II investigation data, it was determined that acetone concentrations in soil, groundwater, and soil gas at the site were below regulatory screening levels. However, the listing remains open with the local regulatory oversight agencies. A 2020 review of the State Water Resources Board's *GeoTracker* site identifies the site *Open – Remediation* as of 6/1/1991 for gasoline impacts to groundwater.
- **On-site Groundwater Impacts from Off-site Sources:** The project area evaluated is adjacent to and north of the former McKesson Chemical facility<sup>1</sup>. In 1999, San Francisco Bay RWQCB ordered a remediation of releases (The McKesson release) of volatile organic compounds (VOCs) into groundwater. The VOCs included 1,1-dichloroethylene (1,1-DCE), 1,1,1-trichloroethane (1,1,1-TCA), trichloroethane (TCA), and tetrachloroethene. The McKesson release has affected locations downgradient, including the evaluated parcels. Long-term monitoring and groundwater extraction has been occurring in the project area as a result of the McKesson release and land use restrictions were recorded on parcels in the area of the release.
- **Former Agricultural Use:** The project area being evaluated was previously used for agricultural purposes from 1939 through the early 2000s. Shallow soil samples collected on-site from 2015 to 2019 contained various organochlorine pesticides (OCPs), including toxaphene, which has been identified in concentrations exceeding California Department of Toxic Substances Control (DTSC) screening levels for residential direct exposure.

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<sup>1</sup> Per the State Water Resource Control Board's *Geotracker* site: the former McKesson Chemical Company facility was constructed in the early 1970s. The McKesson facility handled and repackaged inorganic and organic chemicals, including caustics, chlorine, and organic solvents. Soil and groundwater contamination was discovered in 1983. Subsequent investigation and cleanup actions have been and continue to be overseen by the San Francisco Bay Regional Water Quality Control Board. Primary sources of contaminants were former USTs excavated in 1985 and a solvent diked area excavated in 1987, as interim remedial measures. Soil excavation and soil vapor extraction were conducted onsite from 1985 to 1997. The Water Board adopted final Site Cleanup Requirements in Order No 99-071. McKesson continues to extract and treat groundwater at the site and downgradient of the site across 7th Street to the south to complete the cleanup. McKesson is implementing final remedial action at the site with approximately 18 extraction wells. A deed restriction was recorded with Alameda County for the site.

- *Former Railroad Use:* There are active and inactive rail lines in the western and southwestern portions of the project area as well as a former railroad easement. Shallow soil samples collected in the railroad easement during a 2017 Phase II assessment contained arsenic at concentrations that exceeded background concentrations.

The AAI report stated that the area being evaluated would be entering into an agreement with DTSC, in accordance with the California Land Reuse and Revitalization Act. Facility closure requirements for the former AirGas operations are pending completion of the AAI report.

In addition to the 2019 AAI report summarized above, nine other reports have been prepared for portions of the overall project site. As mentioned previously, certain reports cover select portions of the project site. No one comprehensive document covers the entire project site. Specifically, the technical reports are broken out geographically as described below.

- Railroad Site
  - *Results of Soil Characterization, 2015*
- 33945 7<sup>th</sup> Street
  - *Phase I, 2014, ENGEO*
  - *Phase II, 2014, ENGEO*
- AirGas at 700 Decoto
  - *Phase I/Phase II, 2017*
- 33955 7<sup>th</sup> Street (R&S Manufacturing)
  - *Phase II, 2015*
  - *Phase I Update, 2016*
- Shelton Property
  - *Summary of Human Health Risk, 2013*
  - *Agrichemical Impact Assessment, 2013*
  - *Phase I Environmental Site Assessment, 2016*

The following summary<sup>2</sup> covers the AirGas site at 700 Decoto, the 33945 7<sup>th</sup> Street site, and the Railroad sites.

### ***2017 Phase I Environmental Site Assessment and Phase II Assessment, Union City Properties***

Haley & Aldrich performed a Phase I and Phase II ESA of 700 Decoto Road, 33945 7<sup>th</sup> Street, and an adjacent railroad easement, consisting of APNs 087-0021-005-02, 087-0021-031-01, and 087-0021-031-02. The objective of the Phase I and Phase II ESAs was to identify, if present, RECs, historical RECs, or controlled RECs. The following RECs were identified during completion of the ESAs.

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<sup>2</sup> Not all nine existing technical documents listed were mentioned in this section because some more current reports (such as Phase I ESAs) summarize/consider prior investigations in their conclusions and findings.

- Phase I Findings
  - In 1989, a leak in an on-site 5,000-gallon acetone tank (used in the production of acetylene) was discovered when the tank was removed. At the time, soil was excavated to 15 feet below ground surface (bgs), with deeper affected soil left in place. In 1994, deeper soil and groundwater samples collected under the UST footprint contained significant concentrations of acetone. Subsequent subsurface soil investigations indicated that acetone impacts were located in the immediate vicinity of the former UST footprint. In 1995, multiple groundwater investigations were performed to determine the extents of the acetone impacts on groundwater, and a groundwater remediation plan was put in place. Since 1996, and as of October 2016, semi-annual groundwater monitoring has been performed on-site, and acetone has not been detected in groundwater.
  - A former chemical facility with a history of releases was identified just to the north of the site. Between 1971 and 1986, the site was under the purview of RWQCB for halogenated VOCs that were released into groundwater. The same halogenated VOCs released from the McKesson property have been detected in groundwater monitoring wells on this chemical facility site.
  - The site contained a transformer station on the eastern boundary of the AirGas facility (on the northeast, near the former UST area), which was built in the 1960s. The potential exists for the transformer station's equipment to contain polychlorinated biphenyls (PCBs).
  - The site contained an electrical substation, also built in the 1960s, which included a second transformer station on the southernmost boundary of the AirGas facility. During 2017 site reconnaissance, staining was observed in the soil around the transformer station.
  - The former chemical facility site contains an inactive rail line on the eastern boundary of the air capture facility and a former railroad easement. Known constituents of concern (COCs) associated with railroads include heavy metals and polycyclic aromatic hydrocarbons (PAHs). In 2015, ENGEO collected soil samples in the railroad easement during a Phase II ESA; samples contained lead in levels that exceeded the residential environmental screening levels (ESLs) established by RWQCB.
  - The former chemical facility site was previously used for agriculture. California land used for agriculture during that period tends to contain OCPs and high levels of arsenic. In 2006, ENGEO collection soil samples on the railroad easement; samples contained OCPs in levels exceeding 1 milligram per kilogram. Additional sampling was conducted during the Phase II and any pertinent findings are identified below.
- Phase II Findings
  - Haley & Aldrich drilled borings (ES-1, FR-1 through FR-33, HU-1 through HU-23, TS-1, UST-1 through UST-8, and OGI-1 through OGI-3) to a total depth of approximately 1.5 to 55 feet bgs.
  - Total petroleum hydrocarbons (TPHs), VOCs, and PCBs were detected in soil at the subject site in concentrations below Tier 1 ESLs. Metals and PAHs were detected in soil at the subject site in concentrations that were generally below Tier 1 ESLs and were typical of background levels for Northern California, with the exception of two sample locations on the former railroad and one sample on the northern boundary of the site. Lead was detected in soil that exceeded the Tier 1 ESL in two samples collected at 0.5 feet bgs. PAHs were detected that exceeded the background level of 0.9 milligram per kilogram for benzo(a)pyrene equivalents in one sample collected at 0.5 feet bgs. OCPs (in the form of dieldrin and endrin) were detected in concentrations that exceeded their respective Tier 1 ESLs throughout the air capture facility and the former railroad in soil samples collected at 0.5 and 1.5 feet bgs.

- VOCs were detected in soil gas samples collected at all nine locations across the site. Detected compounds included chloroform, DCE, dichloroacetic acid (DCA), TCA, trichloroethylene (TCE), perchloroethylene (PCE), and Freon 11 as well as COCs associated with the neighboring McKesson release-related groundwater plume. Carbon tetrachloride was detected in sample SG-8 at a concentration of 96 micrograms per cubic meter, which was above its Tier 1 ESL; however, it was not detected in any of the other soil gas samples and is not considered a significant vapor intrusion risk. No other VOCs in any of the other soil gas samples exceeded their respective Tier 1 ESL.
- VOCs were detected in grab groundwater samples collected at all 11 locations sampled at the site. Detected compounds included acetone as well as 1,1-DCA, TCA, TCE, and cis-1,2-DCA as well as COCs associated with the neighboring McKesson groundwater plume. None of the VOCs detected in grab groundwater samples collected at the subject site contained concentrations that exceeded their respective Tier 1 ESL.

The following summary covers the Shelton Property site.

- In 2016, ENGEО conducted a Phase I ESA of the Shelton Property. The Shelton Property (APNs 87-23-13, 87-23-14, 87-23-38, 87-23-10, and 87-21-13-2) consists of approximately 26 acres. Based on the findings of this assessment, the following RECs were identified.
  - The property has been listed as an active voluntary cleanup site in the DTSC EnviroStor database since January 12, 2016. Elevated concentrations of pesticides (specifically toxaphene) have been identified in the upper 2 feet of soil at certain locations on the property. These are associated with the past agricultural use of the property. In addition, elevated concentrations of VOCs (specifically, TCE) have been identified in the soil gas in the northern portion of the property (associated with an off-site plume).
  - An off-site historical VOC release has affected the groundwater in three aquifers underneath the site. The COCs are 1,1-DCE, PCE, 1,1,1-TCA, and TCE. The responsible party, McKesson Company, has been characterizing and mitigating the area since the 1980s, under oversight from the RWQCB. The site is listed (in the State Water Resources Control Board's [SWRCB's] GeoTracker website) as open and undergoing remediation, under the purview of the San Francisco Bay RWQCB and the ACWD.
  - Previous soil characterization activities conducted at the railroad parcel (APN 87-21-13-2) indicated elevated levels of pesticides and lead in shallow soil at this parcel.
- Based on the findings of this assessment, ENGEО recommended the following.
  - Mitigation for the elevated concentrations of pesticides prior to the proposed residential development.
  - Potential engineering controls, such as vapor intrusion mitigation systems, to mitigate the elevated concentrations of VOCs in soil gas in the northern portion of the property. A 2013 (ENGEО) *Step-out Soil Gas Assessment* referenced in the 2016 Phase I ESA concluded that potential risks associated with soil gas impacts could be mitigated with the implementation of an engineering control.
  - Contacting the DTSC (as the site's oversight agency) to discuss/coordinate implementation of said recommendations.

- Numerous wells (including large-bore extraction and monitoring) and piping for groundwater treatment operations associated with the McKesson plume are located on the property. The McKesson plume migrated underneath a portion of the property from an upgradient source, approximately 800 feet north. McKesson has been characterizing and mitigating the plume since the 1980s. The existing groundwater infrastructure on the property would need to be relocated to accommodate future redevelopment.

The following summary covers the 33955 7<sup>th</sup> Street site.

- In 2015, ENGeo undertook a Phase II ESA at 33955 7<sup>th</sup> Street. The purpose of the assessment was to evaluate the extent of soil impacts resulting from historical agricultural practices and use of a railroad spur. Potential sources of vapor intrusion that could affect the proposed development at 33955 7<sup>th</sup> Street were also evaluated. The triangular property is approximately a 1.44-acre portion of a larger parcel identified as APN 87-21-4-2. In addition, ENGeo conducted a concurrent Phase I ESA<sup>3</sup> during preparation of the Phase II ESA. Based on the findings of the concurrent Phase I ESA, the following potential RECs were identified for the property.
  - A review of available California Environmental Protection Agency (CalEPA) database information indicates that there are several VOC plumes in the vicinity of the property. These plumes may have migrated beneath the property and could pose issues and could require corrective engineering controls with respect to vapor intrusion.
  - A review of historical records found that, prior to the early 1960s, the property was most likely used for agricultural purposes prior to building construction. The potential exists for impacts on site soil from arsenic and OCPs used during the former agricultural operations.
  - Railroad spurs were present along the western boundary of the property. The potential exists for impacts on near-surface soils due to the presence of these railroad spurs.
- Phase II Findings
  - Review of the laboratory test results found detectable concentrations of several pesticides in the soil, with concentrations above their respective U.S. Environmental Protection Agency (EPA) regional screening level (RSL) for a residential land. The reported arsenic concentrations were consistent with the State's recommendations for background soil concentrations. The property does appear to have been significantly affected by past agricultural use. Two of the three soil samples collected along the former railroad spur exhibited concentrations that exceeded their applicable RSL for TPH-diesel and/or the cumulative concentration for pesticides (i.e., DDD, DDE, DDT).
  - VOCs were detected in both gas samples collected from the property; however, none of the reported VOCs exceeded the adjusted RSLs for a future residential land use.
  - Based on the findings of this Phase II ESA, no further studies were recommended; however, a soil management plan was recommended to address the elevated concentrations of various pesticides throughout the property.

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<sup>3</sup> The 2015 concurrent Phase I ESA is not in ICF's possession; however, the results are included in the Phase II ESA as well as this summary.

- In 2016, ENGEO undertook a Phase I ESA update for the 33955 7<sup>th</sup> Street site. Based on the findings of this assessment, the following RECs were identified for the property.
  - The property has been listed as an active voluntary cleanup site on the DTSC EnviroStor database since January 12, 2016. Elevated concentrations of pesticides (specifically, toxaphene) have been identified in the upper 2 feet of soil at certain locations on the property. These are associated with the past agricultural use of the property.
  - An off-site historical VOC release affected groundwater in three aquifers underneath the property. The COCs are 1,1-DCE, PCE, 1,1,1-TCA, and TCE. The responsible party, McKesson Company, has been characterizing and mitigating the area since the 1980s, under oversight from the RWQCB.
  - Based on the findings of this assessment, ENGEO recommended the following.
    - Mitigating elevated concentrations of pesticides prior to construction of the proposed residential development.
    - Engaging DTSC to determine the path forward for the property.

### **Hazardous Materials Database Results**

An environmental database search was conducted by Environmental Data Resources (EDR) and is included in **Appendix 4.7**.<sup>4</sup> Database information is dynamic and can change over time, including changes in site status or inclusion of new sites. Because the most recent database information in the technical reports is from 2017, EDR performed a supplemental environmental database search in 2019 to support the hazards and hazardous materials analysis.

Multiple listings were identified within the project footprint and off-site. Table 4.7-1 contains the listings identified within the project site. Table 4.7-2 contains the off-site listings within a 0.25-mile radius of the project site and with a history of releases. These were analyzed because they are the most likely to have an effect on the project site. All off-site properties listed in Table 4.7-2 received closure by the respective oversight agencies. Therefore, impacts (on the project) associated with their historical releases is unlikely. The locations of the on-site and off-site hazardous site listings are shown in Figure 4.7-1.

### **Proximity to Schools**

Several schools are in proximity of the project site, including Guy Emanuele Jr. Elementary School (0.15 mile east), New Haven Adult School (0.2 mile north), and James Logan High School (0.5 mile west).

### **Proximity to Airports and Airstrips**

The project is not within 2 miles of a public airport or public use airport. The nearest aviation facilities are Hayward Executive Airport, approximately 6.3 miles northwest of the project site, and Palo Alto Airport, approximately 11 miles southwest. Therefore, the project site is not within any Airport Influence Areas.

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<sup>4</sup> Environmental Data Resources (EDR). 2019. *Union City Station East Project –EDR Radius Map Report with GeoCheck*. Inquiry Number: 5661694.2s. Shelton, CT. Prepared for ICF.



**Table 4.7-1. On-Site Hazardous Site Listings**

Map ID	Site	Address	Databases	Site Status Summary
1	Air Liquide Amer – U, Liquid Air Corp., Air Liquide Liquid Air Corp., Air Liquide America Corp., Union City Fill Plant (AirGas)	700 Decoto Road	TSCA, RGA LUST, HAZNET, FINDS, CERS HAZ WASTE, CERS, WDS, RCRA-LQG, FINDS, ECHO, CPS-SLIC, SWEEPS UST, HIST UST, CHMIRS, RCRA NONGEN/NLR, EMI, NPDES, CIWQS	Site listed as a cleanup program site with an “open and undergoing remediation” status. The site has groundwater affected by gasoline. Prior investigations have been conducted on-site, as summarized above under 2017 Phase I ESA and Phase II Assessment, Union City Properties.
2	Dave’s Transportation, Nor Cal Trans, Union City, Dave Trans, Laidlaw Transit Service, Dave Transportation	705 Bradford Street/Way	RCRA-SQG, FINDS, ECHO, HAZNET, NPDES, CIWQS	Small-quantity generator site. Permitted stormwater “industrial” site. No violations associated with any of the listings.
3	Wild Rose, McKesson Chemical Co., Foremost McKesson Co., Oxford Tire Recycling of Northern California, Former McKesson Facility, 33950 7 <sup>th</sup> Street Chemical Packing & Distribution	33950 7 <sup>th</sup> Street	CIWQS, HIST UST, SEMS-ARCHIVE, CORRACTS, RCRA-TSDF, RCRA-SQG, FINDS, ECHO, RGA LF. RGA LUST. Cortese, ENF, CERS, CPS-SLIC, WDS, ENVIROSTOR, DEED, HIST CORTESE, CERS	Cleanup program site. Status listed as open and undergoing remediation. Soil and groundwater contamination was discovered in 1983. Primary sources of chlorinated hydrocarbons were the former USTs, excavated in 1985, and the solvent in the diked area, excavated in 1987, which were interim remedial measures. The primary VOCs found in the subsurface were 1,1-DCE, PCE, 1,1,1-TCA, and TCE. Soil excavation and soil vapor extraction were conducted from 1985 to 1997. McKesson is implementing final remedial actions (i.e., groundwater pump and treatment) at the site with approximately 18 extraction wells.
4	R & S Manufacturing, Inc.	33955 7 <sup>th</sup> Street	FINDS, ECHO, EMI, CERS, CERS HAZ WASTE	Site listed as a hazardous waste generator. Temporary compliance violations of Union City environmental programs recorded under the CERS HAZ WASTE listing. No releases into the environment noted under this listing.

Map ID	Site	Address	Databases	Site Status Summary
5	Union City Property	Bradford Way and Zwissig Way, portion of 33955 7 <sup>th</sup> Street, and Railroad Property	ENVIROSTOR, VCP	Voluntary cleanup site under the DTSC site cleanup program. Soil and soil vapor affected with 1,1,1,2-tetrachloroethane. Past use listed as agricultural. Phase I, conducted in 2017, identified RECs, including: 1) an off-site VOC release that affected groundwater below the property and 2) elevated levels of pesticides in shallow soils.

Source: Environmental Data Resources. 2019. *Union City Station East Project – The EDR Radius Map Report with GeoCheck*. Inquiry 5661694.2s. Shelton, CT. Prepared for ICF.

Notes: TSCA = Toxic Substances Control Act; RGA LUST = Recovered Government Archive Leaking Underground Storage Tank; HAZNET = Facility and Manifest Data; FINDS = Facility Index System/Facility Registry System; CERS = California Environmental Reporting System; WDS = Waste Discharge System; RCRA-LQG = Resource Conservation and Recovery Act – Large Quantity Generator; ECHO = Enforcement and Compliance History Information; CPS-SLIC = Cleanup Program Sites; SWEEPS UST = Statewide Environmental Evaluation and Planning System Underground Storage Tanks; HIST UST = Hazardous Substance Storage Container Database; CHMIRS = California Hazardous Material Incident Report System; RCRA NONGEN/NLR = RCRA – Non-Generators/No Longer Regulated; EMI = Emissions Inventory Data; NPDES = National Pollutant Elimination System; CIWQS = California Integrated Water Quality System; RCRA-SQG = RCRA – Small-Quantity Generator; SEMS-ARCHIVE = Superfund Enterprise Management System Archive; CORRACTS = Corrective Action Report; RCRA-TSDF = RCRA – Treatment, Storage and Disposal; CORTESE = Hazardous Waste and Substances Sites List; ENF = Enforcement Action Listing; ENVIROSTOR = EnviroStor Database; DEED = Deed Restriction Listing; VCP = Voluntary Cleanup Program Properties.

**Table 4.7-2. Off-Site Hazardous Site Listings Within a 0.25-mile Radius of the Project Site and with a History of Releases**

<b>Map ID</b>	<b>Site</b>	<b>Address</b>	<b>Distance from the Project Site</b>	<b>Databases</b>	<b>Site Status Summary</b>
6	Cold Storage; Cold Storage Manufacturing, Inc.; Cold Storage Manufacturing	740 Bradford Way	60 feet to the SE	CERS HAZ WASTE, CERS, FINDS, ECHO, RCRA NONGEN/NLR	Site listed as a hazardous waste generator. Temporary compliance violations of Union City Environmental Programs Division recorded under the CERS HAZ WASTE listing. Also listed as a non-generator under Resource Conservation and Recovery Act.
7	Future Residential	621 Daggett Avenue	0.027 mile to the NE	CPS-SLIC, Alameda County CS, CERS	Cleanup program site. Site granted closure by the ACWD. Affected media and contaminants not disclosed.
8	J.E. Higgins Lumber, Higgins Lumber	600 Daggett Avenue	0.031 mi. to the ENE	LUST, HIST CORTESE, CERS, HIST UST	Leaking underground storage tank (LUST) site. The case involved a diesel release to groundwater. Case closed by the ACWD in January 2009.
9	Decoto Pipe Wrapping Plant	1100 Decoto Road	0.078 mile to the SSW	CPS-SLIC, DEED, NOTIFY 65, CERS, SWEEPS UST, HIST UST, RCRA-SQG, ENVIROSTOR, LUST, CPS-SLIC, VCP, FINDS, ECHO, HIST CORTESE	Voluntary cleanup listed as certified in 2003. Site affected by thallium, PCBs, TPH-diesel, cadmium, dieldrin mercury, arsenic, and lead in soil. LUST site involving a gasoline release to groundwater. Case closed by the ACWD in 1993.
10	HP Communications, Inc.; Ambo Engineering Contract; Ambo Engineering, Inc.	34151 Zwissig Way	0.081 mile to the SE	CERS HAZ WASTE, CERS, LUST, HIST CORTESE, LUST, SWEEPS UST	LUST site. The case involved a gasoline release to soil only. Case closed by the ACWD in January 1996.
11	Cascade Steel Company	34200 7 <sup>th</sup> Street	0.141 mile to the ESE	LUST, HIST CORTESE, CERS	LUST site. The case involved a gasoline release to soil only. Case closed by the ACWD in January 1991.

Map ID	Site	Address	Distance from the Project Site	Databases	Site Status Summary
12	PG&E Transmission Right-of-Way – Union City	1 Zwissig Way	0.155 mile to the SE	CPS-SLIC, DEED, CERS	Cleanup program site. The case involved arsenic, lead, nickel, and other metals. Case closed by SWRCB in October 2013.
13	Escutia’s Auto Repair, Schaner Liberty Station, Liberty Station Escutia’s, Liberty Station (Escutia’s Auto Rpr)	967 H Street	0.221 mile to the WNW	CERS HAZ WASTE, CERS, RCRA NONGEN/NLR, SWEEPS UST, HIST UST, LUST, HIST CORTESE	LUST site involving a gasoline release to groundwater. Case granted closure by the ACWD in 2019. Two 4,000-gallon USTs were previously located at the site but removed in 1993. A total of approximately 200 cubic yards of soil was removed during remediation activities.

Source: Environmental Data Resources. 2019. *Union City Station East Project – The EDR Radius Map Report with GeoCheck*. Inquiry 5661694.2s. Shelton, CT. Prepared for ICF.

Notes: TSCA = Toxic Substances Control Act; RGA LUST = Recovered Government Archive Leaking Underground Storage Tank; HAZNET = Facility and Manifest Data; FINDS = Facility Index System/Facility Registry System; CERS = California Environmental Reporting System; WDS = Waste Discharge System; RCRA-LQG = Resource Conservation and Recovery Act – Large Quantity Generator; ECHO = Enforcement and Compliance History Information; CPS-SLIC = Cleanup Program Sites; SWEEPS UST = Statewide Environmental Evaluation and Planning System Underground Storage Tanks; HIST UST = Hazardous Substance Storage Container Database; CHMIRS = California Hazardous Material Incident Report System; RCRA NONGEN/NLR = RCRA – Non-Generators/No Longer Regulated; EMI = Emissions Inventory Data; NPDES = National Pollutant Elimination System; CIWQS = California Integrated Water Quality System; RCRA-SQG = RCRA – Small-Quantity Generator; SEMS-ARCHIVE = Superfund Enterprise Management System Archive; CORRACTS = Corrective Action Report; RCRA-TSDF = RCRA – Treatment, Storage and Disposal; CORTESE = Hazardous Waste and Substances Sites List; ENF = Enforcement Action Listing; ENVIROSTOR = EnviroStor Database; DEED = Deed Restriction Listing; VCP = Voluntary Cleanup Program Properties.; Alameda County Contaminated Sites = Alameda County CS; Proposition 65 Records = NOTIFY 65.

## Emergency Response

The City contracts the Alameda County Fire Department (ACFD) to provide fire and emergency response services. In addition, the Alameda County Sheriff's Department provides the City with police support services during large events and emergencies. The Alameda County Office of Homeland Security and Emergency Services managed by the Alameda County Sheriff implements the Alameda County Emergency Operations Plan (EOP). The EOP identifies emergency response policies, describes the response and recovery organization, and assigns specific roles and responsibilities to County departments, agencies, and community partners.

## Wildfires

The project site is in a developed portion of the City. In addition, according to the State and the California Department of Forestry and Fire Protection (CAL FIRE),<sup>5</sup> the project site is not within a very high fire hazard zone.

### 4.7.1.2 Regulatory Setting

#### Federal

##### **Federal Toxic Substances Control Act/Resource Conservation and Recovery Act/Hazardous and Solid Waste Act**

The federal Toxic Substances Control Act (1976) and the Resource Conservation and Recovery Act of 1976 (RCRA) established an EPA-administered program for regulating the generation, transport, treatment, storage, and disposal of hazardous waste. The RCRA was amended in 1984 by the Hazardous and Solid Waste Act, which affirmed and extended the "cradle to grave" system of regulating hazardous wastes.

##### **Comprehensive Environmental Response, Compensation, and Liability Act/Superfund Amendments and Reauthorization Act**

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as "Superfund," was enacted by Congress on December 11, 1980. This law (Title 42 of the United States Code [USC] Section 103) provides broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. CERCLA establishes requirements concerning closed and abandoned hazardous waste sites, provides for the liability of persons responsible for releases of hazardous waste at these sites, and establishes a trust fund to provide for cleanup when no responsible party can be identified. CERCLA also enabled the revision of the National Contingency Plan (NCP). The NCP (Title 40 of the Code of Federal Regulations [CFR], Part 300) provides the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, and/or contaminants. The NCP also established the National Priorities List. CERCLA was amended by the Superfund Amendments and Reauthorization Act on October 17, 1986.

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<sup>5</sup> California Department of Forestry and Fire Protection. 2008. *Very High Fire Hazard Severity Zones in LRA Alameda County*. Available: [https://osfm.fire.ca.gov/media/6638/fhszl\\_map1.pdf](https://osfm.fire.ca.gov/media/6638/fhszl_map1.pdf). Accessed: April 6, 2020.

### **Occupational Safety and Health Administration**

The Occupational Safety and Health Administration's (OSHA's) mission is to ensure the safety and health of American workers by setting and enforcing standards; providing training, outreach, and education; establishing partnerships; and encouraging continual improvement in workplace safety and health. OSHA establishes and enforces protective standards and reaches out to employers and employees through technical assistance and consultation programs. OSHA standards are listed in Title 29 of the CFR, Section 1910.

### **Department of Transportation Hazardous Materials Regulations**

In Title 49 CFR Parts 100–185, the U.S. Department of Transportation (DOT) hazardous materials regulations cover packaging, handling, and transporting such materials. These regulations include Parts 107 (Hazard Materials Program), 130 (Oil Spill Prevention and Response), 172 (Emergency Response), 173 (Packaging Requirements), 174 (Rail Transportation), 176 (Vessel Transportation), 177 (Highway Transportation), 178 (Packaging Specifications), and 180 (Packaging Maintenance).

### **Lead-Based Paint Elimination Final Rule**

In Title 24 CFR, Section 33, regulations for lead-based paint are specified in the Lead-Based Paint Elimination Final Rule, which is governed by the U.S. Department Housing and Urban Development (HUD). The rule requires sellers and lessors to disclose known lead-based paint and lead-based paint hazards to perspective purchasers and lessees. In addition, all lead-based paint abatement activities must be in compliance with State and federal OSHA requirements as well as those from the California Department of Health Services. Only trained and certified lead-based paint personnel are allowed to perform abatement. All lead-based paint removed from structures must be hauled and disposed of by a transportation company that has been licensed to transport this type of material to a landfill or receiving facility that has been licensed to accept the waste.

## **State**

### **California Environmental Protection Agency**

CalEPA was created in 1991. It unified California's environmental authority in a single cabinet-level agency and placed the California Air Resources Board, SWRCB, RWQCBs, the California Department of Resources Recycling and Recovery, DTSC, the Office of Environmental Health Hazard Assessment, and the Department of Pesticide Regulation under one agency. These agencies were placed under the CalEPA "umbrella" to protect human health and the environment and ensure the coordinated deployment of State resources. Their mission is to restore, protect, and enhance the environment and ensure public health, environmental quality, and economic vitality.

### **Department of Toxic Substances Control**

DTSC, a department of CalEPA, is the primary statewide agency in California for regulating hazardous waste, cleaning up existing contamination, and finding ways to reduce the amount of hazardous waste produced in California. DTSC regulates hazardous waste primarily under the authority of the federal RCRA and the California Health and Safety Code (primarily Division 20, Chapters 6.5 through 10.6, and Title 22, Division 4.5). Other laws regarding hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning.

California Government Code Section 65962.5(a) (commonly referred to as the Cortese List) encompasses DTSC-listed hazardous waste facilities and sites, Department of Health Services lists of contaminated drinking water wells, sites listed by the SWRCB as having UST leaks or a discharge of hazardous wastes or materials into the water or groundwater, and lists from local regulatory agencies of sites with a known migration of hazardous waste/material.

### **Hazardous Waste Control Act**

DTSC is responsible for enforcing the Hazardous Waste Control Act (California Health and Safety Code Section 25100 et seq.), which creates the framework under which hazardous wastes are managed in California. The law provides for the development of a State hazardous waste program that administers and implements the provisions of the federal RCRA's cradle-to-grave waste management system in California. It also provides for the designation of California-only hazardous waste and development of standards that are equal to or, in some cases, more stringent than federal requirements.

### **Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (CUPA)**

The Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program) (California Health and Safety Code Chapter 6.11, Sections 25404–25404.9) consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities of environmental and emergency response programs (e.g., the Hazardous Materials Business Plan Program, California Accidental Release Prevention Program, UST Program, AST Program, Hazardous Waste Generator Program, Hazardous Waste Onsite Treatment/Tiered-Permitting Program) and provides authority to the Certified Unified Program Agency (CUPA). The CUPA for Union City is the Environmental Programs Division of the Economic & Community Development Department.

### **California Code of Regulations, Title 8—Industrial Relations**

Occupational safety standards exist in federal and State laws to minimize worker safety risks from both physical and chemical hazards in the workplace. The California Division of Occupational Safety and Health, known as Cal/OSHA, and OSHA are the agencies responsible for ensuring safety in the workplace. Cal/OSHA assumes primary responsibility for developing and enforcing standards for safe workplaces and work practices.

### **California Labor Code (Division 5, Parts 1, 6, 7, and 7.5)**

The California Labor Code is a collection of regulations pertaining to appropriate training for using and handling hazardous materials as well as operating equipment and machines that use, store, transport, or dispose of hazardous materials. Division 5, Part 1, Chapter 2.5, ensures that employees who are in charge of handling hazardous materials are properly trained and informed about the materials they handle. Division 5, Part 7, ensures that employees who work with volatile flammable liquids are outfitted with appropriate safety gear and clothing.

### **State Water Resources Control Board General Stormwater Permits**

The statewide General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (GCASP) is issued, and periodically renewed, by the SWRCB. The GCASP was adopted in 2009 and revised in 2012 (Order 2012-0006-DWQ). All construction activities that disturb 1 acre or more must prepare and implement a construction Stormwater Pollution Prevention Plan (SWPPP) that specifies best management practices (BMPs) to prevent pollutants from contacting

stormwater. BMPs are effective, practical, structural, or nonstructural methods used to prevent or reduce the movement of sediments, nutrients, and pollutants from land to surface waters. The intent of the SWPPP and BMPs is to keep aforementioned materials from moving off-site into receiving waters, eliminate or reduce non-stormwater discharges to storm sewer systems and other waters of the United States, and perform sampling and analysis to determine the effectiveness of BMPs in reducing the volume of pollutants (even if not visually detectable) in stormwater discharges and preventing them from causing or contributing to violations of water quality objectives.

### **California Department of Pesticide Regulation, Department of Food and Agriculture, and the Department of Public Health**

The California Department of Pesticide Regulations, a division of CalEPA, in coordination with the California Department of Food and Agriculture and the California Department of Public Health, has primary responsibility for pesticide use, vector control, and the safety of food and drinking water. The department registers pesticides. Pesticide use is tracked at the county level. Title 22 of the California Code of Regulations (CCRs) regulates both small and large water systems.

## **Local**

### **Alameda County Fire Department Emergency Operations Plan**

ACFD prepared an EOP that described how the fire department will prepare for, respond to, recover from, and mitigate against natural or human-caused disasters. It describes the emergency management organization and how it is activated. Overarching operational priorities of the EOP include saving lives, protecting health and safety, and preserving the environment. ACFD would provide the fire and emergency response within the City and help implement the EOP.

### **County of Alameda Agricultural Commissioner**

Regulation of the storage, application, and disposal of pesticides is under the jurisdiction of the County of Alameda Agricultural Commissioner. The commissioner implements programs of the California Department of Pesticide Regulations and, since 1990, has compiled reports from farmers and other users of agricultural pesticides that provide complete site-specific documentation of every instance of regulated pesticide application. These include pesticide applications at parks, golf courses, and cemeteries; on rangeland and pastures; and along roads and railroad rights-of-way, among other locations. The reports are transferred to the California Department of Pesticide Regulations and entered into a State database.

### **Union City Municipal Code**

Section 13.42 of the Union City Municipal Code requires that project applicants requesting demolition permits conduct a *PCBs in Priority Building Materials Screening Assessment* and submit information documenting the results of the screening to the City. Such documentation must include: (a) the results of a determination whether the building proposed for demolition is high priority for PCB-containing building materials based on the structure age, use, and construction; and (b) the concentration of PCBs in each priority building material present; and (c) for each priority building material present with a PCB concentration established by the municipal code, the approximate amount (linear feet or square feet) of that material in the building. Affected properties must comply with all related applicable federal and state laws. This may include reporting to the U.S. EPA, the Regional Water Board, and/or the DTSC. Additional sampling for and abatement of PCBs may be required.



## City of Union City 2040 General Plan

The City uses development review procedures, building codes, and other regulations to minimize exposure to natural and manmade hazards. City General Plan policies support continued use of these procedures and regulations to protect people, property, and the environment. In addition, the City and other agencies in the region work collaboratively to ensure that the community is prepared in the event of an emergency and an efficient and effective system is in place for response and recovery. The General Plan includes the following goals and policies associated with hazards and hazardous materials:

**Goal S-1:** To protect the public health and safety and minimize the damage to structures, property, and infrastructure as a result of natural and manmade hazards.

**Policy S-1.1:** Development Review for Safety Compliance. The City shall evaluate all proposed projects to ensure compliance with all relevant building and safety codes, including those related to flooding, fire, earthquake, and other geologic hazards.

**Goal S-2:** Ensure efficient, effective, and coordinated response to natural and manmade disasters.

**Policy S-2.1:** Ensure Emergency Access for New Construction. The City shall not permit new construction in areas where emergency access cannot be adequately ensured.

**Policy S-2.2:** Comprehensive Emergency Management Plan. The City shall maintain an up-to-date Comprehensive Emergency Management Plan that is consistent with the State and federal disaster preparedness requirements.

**Policy S-2.3:** Hazard Mitigation Plan. The City shall maintain a Federal Emergency Management Agency- and State-approved Local Hazard Mitigation Plan and make it available for review on the City's website.

**Goal S-7:** To protect public health and safety, property, and the environment by promoting the safe management of hazardous substances and controlling the use, storage, handling and disposal of the most toxic and hazardous substances.

**Policy S-7.1:** Control Hazardous Materials. The City shall strictly control the use, storage, and handling of toxic, explosive, or other hazardous materials and wastes at facilities within Union City.

**Policy S-7.2:** Limit Locations of Hazardous Materials. The City shall limit locations of hazardous materials storage and use, through the City's development review or building permit review processes, to those areas where potential accidents will not cause undue risk to people and property and where effective emergency response can be provided. Actions, as found appropriate, shall include the prohibition of certain hazardous materials, combinations of materials, or quantities of materials in particular land use areas and/or facilities.

**Policy S-7.3:** Environmental Site Assessment. The City shall require applications subject to Site Development Review or applications for development on sites where there is potential for contamination to exist to include submittal of a Phase I ESA and Phase II ESA (if required). Any recommendations contained in these documents, including the need for remediation activities or additional study, shall be completed consistent with applicable federal, State, and local regulations.

### **Decoto Industrial Park Study Area Specific Plan**

The *Decoto Industrial Park Study Area Specific Plan* (DIPSA Specific Plan) (most recently amended in July 2006) includes the following policies associated with hazards and hazardous materials as described below.

**Toxic and Hazardous Substances Policy 3:** The City will cooperate with land owners and public agencies charged with overseeing the cleanup of contaminated lands, in addition to the PSSC lands, in the DIPSA.

**Toxic and Hazardous Substances Policy 5:** Prior to any new development, or expansion of existing development, within the DIPSA a complete review of any potential hazardous materials project site contamination should be completed under the direction of the Union City Fire Department. The investigation should include sampling, groundwater monitoring, vapor studies or any other studies requested by CalEPA, the ACWD, Alameda County Health Department and/or the Union City Fire Department. The studies should be accepted by the requesting agency and all recommendations incorporated into the proposed project.

**Toxic and Hazardous Substances Policy 6:** The City shall participate with representatives of Liquid Air Corporation to complete a risk assessment of their existing operations. The results of this risk assessment shall be considered in determining if this use should be allowed to remain in the DIPSA. The City will identify specific modeling and presentation techniques to help explain the findings.

## **4.7.2 Environmental Impacts**

This section contains the impact analysis for the proposed project as it relates to hazards and hazardous materials. The methods used to determine the potential project-related impacts, as well as the thresholds of significance used to conclude whether or not an impact would be significant, are described below. Measures that would mitigate (i.e., avoid, minimize, rectify, eliminate, or compensate for) significant impacts are included within each impact discussion where they have been deemed necessary and appropriate.

### **4.7.2.1 Thresholds of Significance**

CEQA Guidelines Appendix G identifies significance criteria to be considered when determining whether a project could have significant impacts on existing hazards and hazardous materials as described below.

- Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
- Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?
- Would the project emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?
- Would the project be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment?

- Would the project, if located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the project area?
- Would the project impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?
- Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

#### 4.7.2.2 Methods for Analysis

As described in Section 4, *Environmental Impact Analysis*, subsequent to the drafting of this EIR, the applicant indicated that the residential units associated with proposed project would increase by 10, from 964 to 974 units. As described therein, the analysis presented throughout this EIR adequately accounts for the potential environmental impacts of the 974 new residential units.

The following technical reports were used for the evaluation of potential impacts involving hazards or hazardous materials.

- 2019 *All Appropriate Inquires Report*, Project 3-8 (Project Area 3-8). RPS Group Inc.
- 2017 Phase I ESA and Phase II ESA, Union City Properties. Haley & Aldrich, Inc.
- 2016 Phase I ESA of the Shelton Property. ENGEO.
- 2016 Phase I ESA Update of the 33955 7<sup>th</sup> Street site. ENGEO.
- 2015 Phase II ESA of the 33955 7<sup>th</sup> Street site. ENGEO.
- 2013 Stepout Soil Gas Assessment Zwissig Way Development. ENGEO

In addition, EDR conducted a supplemental environmental database search in support of the hazards and hazardous materials analysis in this section.

#### 4.7.2.3 Issues Not Evaluated Further

**Would the project, if located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the project area?**

The project site is not within 2 miles of a public airport or public use airport. The nearest aviation facility is Hayward Executive Airport (approximately 6.3 miles to the northwest). In addition, the project site is in a developed area of the City and not within or immediately adjacent to a wildland area, nor is it in a CAL FIRE high fire hazard zone. Therefore, these topics are not addressed further in this environmental impact report (EIR). Therefore, the proposed project would have **no impact** with respect to safety hazard or excessive an airport land use plan. This topic is not addressed further in this EIR.

#### 4.7.2.4 Impacts and Mitigation Measures

**Impact HAZ-1: The project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. (Less than Significant)**

##### Construction

Project construction would involve routine transport, use, and disposal of hazardous materials such as solvents, paints, oils, grease, and caulking. Such transport, use, and disposal must comply with applicable regulations, such as those discussed under *Regulatory Setting*. Although small amounts of solvents, paints, oils, grease, and caulking would be transported, used, and disposed of during the construction phase, these materials are typically used in construction projects and would not represent the transport, use, and disposal of acutely hazardous materials. In addition, BMPs would be employed during construction to prevent spills of hazardous materials into the surrounding environment, as required by the project-specific SWPPP to be prepared under the Construction General Permit (Order No. 2012-0006-DWQ). Therefore, potential construction impacts associated with the routine transport, use, or disposal of hazardous materials would be ***less than significant***.

##### Operation

The project would consist of residential units (apartments, condominiums, and townhomes), residential amenity space, commercial space, decks and private open space, garages, and corridor space. Commercial space would include retail space, urban plazas, and a market. Commercial uses associated with the project (i.e., the retail space and market) would use hazardous chemicals that are typical in these types of settings. These could include common materials such as toners, paints, restroom cleaners, and other maintenance materials. Grounds and landscape maintenance within the project area would use a variety of commercial products that are considered hazardous materials, including fuels, cleaners and degreasers, solvents, paints, lubricants, adhesives, sealers, and pesticides/herbicides. Such materials are considered common. It is unlikely that they would be stored or used in quantities that would result in a significant release. Any spills involving these materials would be small, localized, and cleaned up as they occur. In addition, because of the nature of the residential and open space land uses, they typically do not pose significant hazardous material impacts. Hazardous materials in residential settings are typically handled in negligible amounts for cleaning, maintenance, etc. As part of operations, the project would have a battery backup system for emergency power generation. Lithium ion batteries would be located in cabinets in the electrical room of each building. In the unlikely event of damage to a cabinet, the lithium ion batteries would not leak. The rooms containing the batteries would be protected by a pre-action sprinkler system and have a minimum 1-hour fire rating. Therefore, potential operational impacts associated with the routine transport, use, or disposal of hazardous materials would be ***less than significant***.

**Impact HAZ-2: The project could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. (Less than Significant with Mitigation)**

As discussed under *Existing Conditions*, the project site has a history of contamination and has undergone a series of environmental investigations. In addition, remediation activities have also been conducted in portions of the project site. Environmental conditions pertinent to this threshold are summarized below by site.

## 700 Decoto Rd., 33945 7<sup>th</sup> Street, and Railroad Sites

Lead, PAHs, and OCPs were detected in on-site soils, in concentrations exceeding screening levels, within the 700 Decoto Rd., 33945 7<sup>th</sup> Street, and Railroad sites. In addition, VOCs were detected in both soil and groundwater samples, although VOC detections in groundwater were below screening levels. Soil disturbance as part of project implementation could expose construction personnel and the surrounding environment to hazardous waste in the form of contaminated soil. Implementation of Mitigation Measure HAZ-2a would reduce potential impacts to ***less than significant with mitigation***.

In addition to implementation of Mitigation Measure HAZ-2a (as described below), redevelopment of the project site would include oversight by the DTSC and ACWD, and such oversight must be coordinated with the City pursuant to DIPSA Specific Plan, Toxic and Hazardous Substances Policy 5. As discussed in the 2019 AAI summarized in the *Environmental Setting*, the study area analyzed in the report (including 700 Decoto Road, 33945 7<sup>th</sup> Street, Railroad property, Shelton Property, and 33955 7<sup>th</sup> Street sites - APNs 87-21-5-2, 87-21-13-2, 87-21-13-1, 87-21-4-2, 87-23-10, 87-23-13, and 87-23-14) would be entering into an agreement with the DTSC, in accordance with the California Land Reuse and Revitalization Act. Furthermore, because of the historical UST release associated with the site (described in the *Environmental Setting*), the ACWD would provide technical oversight related to remediation of the site.

### Mitigation Measure HAZ-2a: Site Management Plan

Prior to issuance of a grading permit, the project sponsor shall retain the services of a qualified environmental engineering firm to prepare and implement, during site preparation and grading activities, a Site Management Plan (SMP). The SMP shall be designed to protect human health and the environment and include protocols, measures, and techniques for the proper handling, management, and disposition of affected soils found on the site and any areas of off-site work during site preparation and grading activities. The SMP shall also be designed to protect workers and off-site receptors during site activities and ensure the proper characterization, management, and/or disposal of contaminated environmental media that is above applicable Environmental Screening Levels (ESLs). The SMP shall be prepared by a commercial environmental engineering firm with demonstrated expertise and experience in the preparation of SMPs and be stamped by an appropriately licensed professional. The SMP shall be submitted for City and outside agency review in conformance with DIPSA Specific Plan, Toxic and Hazardous Substances Policy 5, and implemented throughout all ground-disturbing work.

The SMP shall establish protocols and measures for addressing the discovery of presently unknown environmental conditions or subsurface structures such as USTs or sumps. If the environmental engineering firm subsequently identifies the need for further sampling, the project sponsor shall implement this and any other requirements identified in the SMP. The project sponsor shall enter into a voluntary agreement with the San Francisco Bay Regional Water Quality Control Board (RWQCB) for review and approval of the SMP. As lead agency for the site cleanup, the RWQCB will also have oversight authority pertaining to implementation of the SMP. If directed by the RWQCB, additional site investigation and characterization may be required prior to construction to ensure that hazardous materials in the soil, soil vapor, and/or groundwater do not exceed applicable regulatory thresholds. If additional site investigation and characterization is required prior to construction, the project sponsor shall implement said studies (and their respective

recommendations,<sup>6</sup> if necessary) prior to construction. The RWQCB will also consult and coordinate with the ACWD on the scope of the SMP. The project sponsor shall provide a copy of the SMP to the ACWD at the same time the SMP is submitted to the RWQCB for review and comment. As the oversight agency, the RWQCB shall provide the project sponsor with comments on the SMP. Prior to issuance of the grading permit, the project sponsor shall provide the City with a copy of the approved SMP and implement the SMP during site preparation and grading under the approving agency's oversight at the project sponsor's cost.

## Shelton Property Site

Elevated concentrations of pesticides in soil (in the upper 2 feet) were identified at certain locations within the Shelton Property site. In addition, elevated concentrations of VOCs were identified in the soil gas in the northern portion of the property (associated with the McKesson off-site plume). Soil disturbance as part of project implementation could expose construction personnel and the surrounding environment to hazardous waste in the form of contaminated soil. Implementation of Mitigation Measure HAZ-2a would reduce potential exposure impacts associated with contaminated soils and establish protocols and measures for addressing the discovery of presently unknown environmental conditions or subsurface structures. Moreover, redevelopment of the Shelton Property site would be conducted under purview of the ACWD and DTSC, and in accordance with the California Land Reuse and Revitalization Act (similar to what is described above for the 700 Decoto Rd., 33945 7<sup>th</sup> Street, and Railroad Sites). A *Step-out Soil Gas Assessment* was conducted by ENGEO in December 2013 to further evaluate the soil gas impacts in the area concluded that potential risks exist and could be mitigated with appropriate engineering controls. As stated in the *Environmental Setting*, and as indicated below in Mitigation Measure HAZ-2b, redevelopment of the Shelton Property would require implementation of engineering controls (i.e., vapor intrusion systems) to address elevated concentrations of VOCs in soil gas along the northern portion of the property. Implementation of Mitigation Measure HAZ-2b would reduce potential effects associated with soil gas impacts to ***less than significant with mitigation***.

In addition to on-site contamination, numerous wells, as well as piping for groundwater treatment operations, are within the boundaries of the Shelton Property. The ACWD identified at least 22 monitoring and extraction wells within the project area. However, compliance with DTSC, RWQCB, and ACWD regulations would ensure that this impact remains less than significant. Remediation infrastructure in the form of monitoring wells as well as piping for groundwater treatment operations is located within the Shelton Property. Each well in the project area must be in compliance with ACWD Ordinance No. 2010-01 and either protected or properly destroyed and then replaced prior to or during construction activities. If the wells are to remain, a letter so indicating must be sent to the ACWD. If, during the construction process, the wells are 1) no longer required by any regulatory agency, 2) no longer monitored on a regular basis, or 3) damaged, lost, or jeopardized because of a surface seal, the wells must be destroyed in accordance with ACWD requirements. If it is determined that the construction footprint overlaps with the aforementioned remediation piping or groundwater wells, the project applicant is required to take the measures necessary to relocate or remove said equipment in accordance with ACWD and San Francisco Bay RWQCB requirements (as discussed in *Existing Setting*, the site is under the purview of the San Francisco Bay RWQCB and the ACWD).

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<sup>6</sup> Recommendations would depend on the type of features or contaminant(s) encountered and extent of contamination and the media affected,

### **Mitigation Measure HAZ-2b: Engineering Controls on the Project Site**

Prior to the issuance of grading permits, the project sponsor shall demonstrate compliance with the recommendations in the *Step-out Soil Gas Assessment* (ENGE0 2013) to address vapor intrusion concerns. Implementation of engineering controls shall be implemented on the project site in accordance with the *Step-out Soil Gas Assessment* (ENGE0 2013) to address the presence of elevated VOCs (in areas where TCE and PCE concentrations exceeded residential screening levels). Engineering controls shall be installed to redirect and or minimize VOC concentrations. Said engineering controls shall consist of controls that allow for passive ventilation and discharge of the vapors into the atmosphere.

Specific engineering controls may include, but will not be limited to:

- Installation of subsurface migration barriers; and/or
- Inclusion of ventilated foundations for any proposed structures; and/or
- The use and implementation of an alternative method or structural design that would address soil gas releases and reduce the potential for hazardous conditions to occur.

Appropriate engineering control system(s) shall be determined with concurrence, approval, and oversight of the DTSC and RWQCB, and shall be dependent on future building placement and construction. If monitoring or extraction wells remain in place at the time that engineering controls are submitted to DTSC and RWQCB, the engineering controls shall ensure that building placement will not interfere with operation of the well facilities, or that DTSC and/or RWQCB have approved any required modifications to the well facilities.

### **33955 7<sup>th</sup> Street Site**

The 33955 7<sup>th</sup> Street site has been significantly affected by historical agricultural uses. Several pesticides were identified in on-site soil, and concentrations were above screening levels. In addition, elevated concentrations of TPH-diesel and/or cumulative concentrations of pesticides (i.e., DDD, DDE, and DDT) were identified in the area of a former railroad spur. A 2016 Phase I ESA update (described in *Environmental Setting*) conducted on the 33955 7<sup>th</sup> Street site reaffirmed the existence of elevated concentrations of pesticides. In addition, the 2016 Phase I ESA identified groundwater impacts under the site as a result of a historical off-site VOC release by the McKesson Company. Impacts related to this McKesson VOC release have been characterized and mitigated since the 1980s, however, potential impacts still exist. Soil disturbance as part of project implementation could expose construction personnel and the surrounding environment to hazardous waste in the form of contaminated soil. As with the other portions of the project site, redevelopment of the 33955 7<sup>th</sup> Street site would be conducted under purview of the DTSC and in accordance with the California Land Reuse and Revitalization Act. Furthermore, implementation of Mitigation Measure HAZ-2a would further reduce potential exposure impacts associated with contaminated soils to ***less than significant with mitigation***.

### **Groundwater**

As discussed in Chapter 3, *Project Description*, project construction is not expected to involve dewatering. As such, potential impacts associated with exposure to contaminated groundwater are not expected.

## Demolition

Demolition would generate approximately 2,175 tons of demolished building material and approximately 80,000 cubic yards (cy) of demolished trees, landscaping, soil, concrete, and asphalt. As a result, it is possible that construction personnel would be exposed to hazardous building materials such as asbestos-containing building materials, lead-based paint, PCBs, fluorescent lights, etc. However, as required by Mitigation Measure HAZ-2c, prior to obtaining a demolition permit from the City, a comprehensive building materials survey would be performed (on all buildings to be demolished) to check for asbestos-containing materials, lead-based paint, electrical equipment containing PCBs, and fluorescent tubes containing mercury vapors. If found, construction worker health and safety regulations, as well as material removal and disposal regulations, would be implemented in accordance with applicable federal and State standards, including California Division of Occupational Safety and Health (Cal/OSHA) and Bay Area Air Quality Management District (BAAQMD) regulations. Through compliance with Cal/OSHA regulations, BAAQMD regulations, City demolition permit requirements, and implementation of Mitigation Measure HAZ-2c, potential impacts associated with demolition activities would be ***less than significant with mitigation.***

### **Mitigation Measure HAZ-2c: Conduct a Hazardous Building Materials Survey prior to Demolition Activities.**

Prior to the issuance of a demolition permit, a comprehensive Hazardous Building Materials Assessment shall be conducted by a licensed contractor prior to demolition activities associated with the project. Should this assessment determine that lead-based paint and/or asbestos or other hazardous building materials are present, the following actions shall be implemented:

- A health and safety plan shall be developed by a certified industrial hygienist for potential lead-based paint, asbestos or other hazardous building materials risks present during demolition. The health and safety plan shall then be implemented by a licensed contractor.
  - Both the federal Occupational Safety and Health Administration (OSHA) and the California Occupational Safety and Health Administration (Cal/OSHA) regulate worker exposure during construction activities that affect lead-based paint. The Interim Final Rule found in 29 Code of Federal Regulations, Part 1926.62 covers construction work in which employees may be exposed to lead during such activities as demolition, removal, surface preparation for repainting, renovation, cleanup, and routine maintenance.
- Acquire necessary approvals from the City for specifications or commencement of abatement activities. Abatement activities shall be conducted by a licensed contractor.
- Prior to demolition of construction debris containing asbestos the Bay Area Air Quality Management District (BAAQMD) shall be notified ten days prior to initiating construction and demolition activities. Demolition permit submittal to the City shall include BAAQMD Asbestos Demolition/Renovation job number (J#) and related BAAQMD acknowledgement letter.
  - Asbestos shall be disposed of at a licensed disposal facility. Section 19827.5 of the California Health and Safety Code, adopted January 1, 1991, requires that local agencies not issue demolition or alteration permits until an applicant has demonstrated compliance with notification requirements under applicable federal regulations regarding hazardous air pollutants, including asbestos.



- The local office of the Cal/OSHA shall be notified of asbestos abatement activities.
- Asbestos abatement contractors shall follow State regulations contained in 8 CCR 1529 and 8 CCR 341.6 through 341.14 where there is asbestos-related work involving 100 square feet or more of asbestos containing material.
- Asbestos removal contractors shall be certified as such by the Contractors Licensing Board of the State of California. The owner of the property where abatement is to occur shall have a Hazardous Waste Generator Number assigned by and registered with the Office of the California Department of Health Services in Sacramento.
- Contractors and subcontractors shall comply with Union City Municipal Code 13.42.050 in performing a priority building materials screening assessment.
- The contractor and hauler of hazardous building materials shall file a Hazardous Waste Manifest that details the hauling of the material from the site and the disposal of it. Pursuant to California law, the City of Union City shall not issue the required permit until the applicant has complied with the notice requirements described above.

**Impact HAZ-3: The project could emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school. (Less than Significant with Mitigation)**

Project construction would involve routine handling of hazardous materials such as solvents, paints, oils, grease, and caulking. These materials must be handled in compliance with applicable regulations, such as those discussed under *Regulatory Setting*. Small amounts of these materials would be handled during construction. However, these are typical for construction projects and would not include acutely hazardous materials. In addition, BMPs would be employed during construction (e.g., parking and refueling vehicles and equipment in one area, practicing good housekeeping, properly disposing of hazardous waste) to prevent spills of hazardous materials into the surrounding environment. As discussed previously, the project site has a history of on-site contamination. Several schools are within proximity of the project site, including Guy Emanuele Jr. Elementary School (0.15 mile east) and New Haven Adult School (0.2 mile north). Therefore, affected soils associated with historical contamination would be handled during construction activities and would be handled within 0.25 mile of an existing school. This impact could be significant. However, implementation of Mitigation Measure HAZ-2a during redevelopment would minimize the potential for exposing the surrounding environment (including nearby schools) to hazardous materials by ensuring that contaminated soil encountered would be properly identified, removed, and disposed of off-site. Therefore, this impact would be ***less than significant with mitigation***.

**Impact HAZ-4: The project could be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, could create a significant hazard to the public or the environment. (Less than Significant with Mitigation)**

EDR performed a supplemental environmental database search in 2019 and the project site was identified in multiple environmental databases (specific databases identified and defined in Table 4.7-1, *On-Site Hazardous Site Listings*). It has a history of on-site contamination and has undergone a series of environmental investigations. Remediation activities have been conducted in portions of the project site. Details regarding contamination, investigations, and remediation are provided in *Existing Conditions*. Because the disturbance of affected soils associated with historical contamination could expose construction personnel and the surrounding environment to hazardous

materials in the form of contaminated media, this impact could be significant. However, implementation of Mitigation Measure HAZ-2a during redevelopment would minimize the potential for exposing the surrounding environment to hazardous materials by ensuring that contaminated soil encountered would be properly identified, removed, and disposed of off-site. Therefore, this impact would be ***less than significant with mitigation***.

**Impact HAZ-5: The project would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. (Less than Significant)**

As discussed in Section 4.14, *Transportation*, the project would not result in any substantial traffic queuing along Decoto Road or 7<sup>th</sup> Street and would not allow any construction vehicles or equipment to park or remain stationary within a roadway. Furthermore, larger construction vehicles entering and exiting the site would be guided by personnel using signs and flags to direct traffic. Moreover, the project would not include any characteristics (e.g., permanent road closures, long-term blocking of road access) that would physically impair or otherwise interfere with emergency response or evacuation in the project vicinity. In addition, as discussed in Chapter 3, *Project Description*, emergency vehicle access would be provided from all internal streets within the project site. Therefore, the project would not affect implementation of any local emergency response plan, such as the Alameda County Comprehensive Emergency Management Plan or the Union City/Newark Multi-Jurisdiction Hazard Mitigation Plan. The project would also adhere to General Plan Policy S-2.1, which states that the City will not permit construction in areas where emergency access cannot be adequately ensured. Therefore, this impact would be ***less than significant***.

## **Cumulative Impacts**

**Impact C-HAZ-1: The project, in combination with past, present, and reasonably foreseeable future projects, would not result in a significant cumulative impact on hazards and hazardous materials. (Less than Significant)**

The cumulative geographic context for hazards and hazardous materials is the project site and nearby properties in the immediate vicinity. The approach to cumulative impacts is described in Section 4, *Environmental Impact Analysis*.

Similar to the project, reasonably foreseeable projects could result in construction impacts related to the routine transport, disposal, or handling of hazardous materials; intermittent use and transport of petroleum-based lubricants, solvents, and fuels; and transport of affected soil to and from sites. However, hazardous waste generated during construction of any project would be collected, properly characterized for disposal, and transported in compliance with regulations such as the ones described under *Regulatory Setting*. Hazardous materials are strictly regulated by local, State, and federal laws. Specifically, these laws are designed to ensure that hazardous materials do not result in a gradual increase in toxins in the environment. For each of the reasonably foreseeable projects under consideration, various project-specific measures (such as the ones identified for this project) would be implemented as a condition of development approval to mitigate risks associated with exposure to hazardous materials. For these reasons, the proposed project, in combination with other past, present, and reasonably foreseeable future projects, would not result in a significant cumulative hazards or hazardous materials impact. The cumulative impact would be ***less than significant***.

## 4.8 Hydrology and Water Quality

This section describes the environmental and regulatory setting for hydrology and water quality. It also describes impacts on hydrology and water quality that would result from implementation of the project and mitigation for significant impacts where feasible and appropriate. This section is based, in part, on the Updated Summary of Stormwater Infrastructure Modeling prepared for the project by Balance Hydrologics (**Appendix 4.8-1**), the LID Reduction Narrative Memorandum prepared for the project by CBG Engineers (**Appendix 4.8-2**), and the Additional Hydraulic Modeling of the Existing Zwissig Way Storm Drain Line by Balance Hydrologics (**Appendix 4.8-3**).<sup>1,2,3</sup>

In response to the Notice of Preparation (NOP), comments were received that identified concerns with runoff, off-site drainage patterns, and groundwater resources. The comments are addressed in the environmental analysis in this section.

### 4.8.1 Existing Conditions

#### 4.8.1.1 Environmental Setting

Mean precipitation from the nearest weather station, located in Newark, California, from 1996 to 2016 averaged approximately 14 inches annually. Precipitation in the project area is highly seasonal, with most rainfall occurring between November and March.<sup>4</sup> The project site ranges in elevation from approximately 50 feet above mean sea level (msl) in the western portion of the site to approximately 63 feet above msl in the eastern portion of the site.<sup>5</sup> The project site is occupied by existing and vacant industrial uses, surface parking lots, asphalt or concrete storage lots, a roadway, and railroad spur improvements. As discussed in Section 4.2, *Biological Resources*, unpaved land within the site includes agricultural, annual grassland, landscaped, and ruderal areas. Existing impervious areas cover 40 percent of the project site (10.5 acres, or 457,380 square feet [sf]) and pervious areas covers 60 percent (16.0 acres, or 696,960 sf).

#### Surface Water

The project site is within the Lower Alameda Creek sub-watershed, within the larger Alameda Creek watershed. The Alameda Creek watershed drains to Arroyo Mocho, Arroyo de la Laguna, Alameda Creek, with its waters ultimately reaching San Francisco Bay just north of Coyote Hills. At the confluence of Arroyo de la Laguna with Alameda Creek, Alameda Creek begins its descent through Niles Canyon. Lower Alameda Creek is constrained in a flood control channel, a prominent drainage feature known as the Alameda Flood Control Channel. The site is less than 1 mile east of Dry Creek, a tributary to Alameda Creek, which is approximately 1 mile southwest of the project site. Alameda

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<sup>1</sup> Balance Hydrologics. 2020. *Updated Summary of Stormwater Infrastructure Modeling for the Bradford Way Project City of Union City*. September 1.

<sup>2</sup> CBG Engineers. 2020. *Station East – LID Reduction Narrative Memorandum*. September 15.

<sup>3</sup> Balance Hydrologics. 2020. *Additional Hydraulic Modeling of the Existing Zwissig Way Storm Drain Line, City of Union City*. October 16.

<sup>4</sup> Western Regional Climate Center. 2016. *Period of Record, Monthly Climate Summary, Newark, California (046144)*. Available: <https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca6144>. Accessed: March 3, 2020.

<sup>5</sup> ENGeo. 2016. *Phase I Environmental Site Assessment – Zwissig Way Parcels, Union City, California*. April.

Creek is largely channelized through Union City and managed by the Alameda County Flood Control and Water Conservation District (Alameda County Flood Control District). Quarry Lakes Regional Recreational Area, which include Rainbow Lake, Horseshoe Lake, Willow Slough, Lago Los Osos, and Shinn Pond, is approximately 1.2 mile south of the project site.

There are several storm drains around the perimeter of the project site, including a 21-inch storm drain in Decoto Road, a 27-inch storm drain in 7<sup>th</sup> Street, and a 42- to 45-inch storm drain in 7<sup>th</sup> Street. In addition, there are 15- and 18-inch storm drain pipes in Bradford Way and Zwissig Way, respectively. These pipes drain to Line M-3, which, in turn, drains into Line M and then into Alameda Creek.

## Water Quality

The *Water Quality Control Plan for the San Francisco Bay Basin* (Basin Plan) specifies beneficial uses that apply to water bodies where the potential exists for them to be affected by the project. Dry Creek has water quality requirements for the following beneficial uses: preservation of rare and endangered species, warm freshwater habitat, wildlife habitat, and water contact and non-water contact recreation. Alameda Creek has the same water quality requirements for beneficial uses, with the addition of the following: agricultural supply, groundwater recharge, commercial and sport fishing, cold freshwater habitat, fish migration, and fish spawning.<sup>6</sup>

Alameda Creek is 303(d) listed as impaired for Diazinon. Diazinon is a pesticide and is addressed in the San Francisco Bay Urban Creeks Diazinon Total Maximum Daily Load Assessment, which was approved by the U.S. Environmental Protection Agency (EPA) in 2007. The Alameda Creek Quarry Ponds also have a history of water quality impairments. However, adequate water quality information is not available for making an appropriate recommendation; therefore, the Quarry Ponds are not 303(d) listed as impaired.<sup>7</sup>

## Groundwater

The project site is located in the Santa Clara Valley – Niles Cone Groundwater Subbasin, part of the larger Santa Clara Valley Groundwater Basin, which supplies water to and is managed by the Alameda County Water District (ACWD) with other regional partners. Beneficial uses for the groundwater basin include municipal and domestic water supply, industrial process and service water supply, and agricultural water supply. The Santa Clara Valley Groundwater Basin has a history of groundwater overdraft. The Alameda County Water District diverts impounded water from behind three dams in the Alameda Creek flood control channel to groundwater recharge ponds in the Quarry Lakes Regional Recreation Area in Fremont. This water percolates into aquifers and supplies up to 50 percent of the water used in Fremont, Newark, and Union City.<sup>8</sup> Seawater intrusion is common in the basin and has moved landward and into deeper aquifers since first recorded in the 1920s.

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<sup>6</sup> San Francisco Bay Regional Water Quality Control Board. 2010. *Attachment A to the Final Staff Report: San Francisco Bay Basin Water Quality Control Plan, Basin Plan Update, Addition of Water Bodies and Beneficial Uses*. Originally published July 7, 2010.

<sup>7</sup> State Water Resources Control Board. 2018. *2014/2016 Integrated Report (Clean Water Act Section 303[d] List/305[b] Report)—Statewide*. San Francisco Bay Regional Water Quality Control Board. EPA approved: April 6, 2018. Available: [https://www.waterboards.ca.gov/water\\_issues/programs/tmdl/integrated2014\\_2016.shtml](https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2014_2016.shtml). Accessed: March 4, 2020.

<sup>8</sup> San Francisco Bay Regional Water Quality Control Board. 2010. *Attachment A to the Final Staff Report: San Francisco Bay Basin Water Quality Control Plan, Basin Plan Update, Addition of Water Bodies and Beneficial Uses*. Originally published July 7, 2010.

The Alameda County Water District has begun treating brackish groundwater to allow previously unused groundwater to be used as potable water.<sup>9</sup>

As discussed in Section 4.7, *Hazards and Hazardous Materials*, the project site contains residual concentrations of volatile organic compounds (VOCs) in groundwater. Remediation equipment is on portions of the project site, along with numerous groundwater wells. This equipment is associated with remediation of an off-site historic VOC release known as the McKesson release-related plume.<sup>10</sup>

## Flood Hazards

The project site is located outside the Federal Emergency Management Agency (FEMA) 100-year floodplain but within FEMA Zone X (unshaded), an area of minimal flood hazard (i.e., above the 500-year flood level). The area immediately north of the project site crosses FEMA Zone X (shaded). This is an area of moderate flood hazard, usually between the limits of the 100-year and 500-year flood or within an area with lesser hazards (e.g., an area with levee protection or a history of only shallow flooding).<sup>11</sup> Based on the distance from San Francisco Bay, the project site is not susceptible to tsunamis, and there are no reservoirs adjacent to the project site. In addition, San Francisco Bay is a large, open body of water with no immediate risk of seiche. Therefore, the project site is not prone to inundation by tsunami or seiche.

### 4.8.1.2 Regulatory Setting

#### Federal

##### Clean Water Act

Several sections of the Clean Water Act (CWA) pertain to regulating waters of the United States. The CWA is not only the primary federal law for regulating water quality in the United States but also the basis for several State and local laws. Its objective is to reduce or eliminate water pollution in the nation's rivers, streams, lakes, and coastal waters. The CWA prescribes basic federal laws for regulating discharges of pollutants and sets minimum water quality standards for all waters of the United States. Several mechanisms are used to control domestic, industrial, and agricultural pollution under the CWA.

EPA is the overarching authority for protecting the quality of waters of the United States. However, EPA has delegated administration and enforcement of the CWA in California to the State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCBs). The State has developed a number of water quality laws, rules, and regulations. It also adopts water quality standards to protect beneficial uses of waters of the State, as required by Section 303(d) of the CWA. CWA requirements are addressed through development of a 303(d)/305(b) integrated report, which provides both an update to the 303(d) list and a 305(b) assessment of statewide water quality. The 2014/2016 California Integrated Report was approved by EPA on April 6, 2018.

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<sup>9</sup> Department of Water Resources 2019. *SGMA Basin Prioritization Dashboard*. Available: <https://gis.water.ca.gov/app/bp-dashboard/final/>. Accessed: March 4, 2020.

<sup>10</sup> ICF. 2020. *Station East Residential/Mixed-Use Project, Hazardous Materials Reports, Summary*. February 4.

<sup>11</sup> Federal Emergency Management Agency. 2009. *FEMA Flood Insurance Rate Map*. Map Numbers 06001C0032G and 06001C0034G, dated August 3, 2009. Available: <https://hazards-fema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd>.

### **Executive Order 11988**

FEMA is responsible for managing the 100-year floodplain, areas with a 1 percent or greater chance of flooding in any given year. A Flood Insurance Rate Map, an official FEMA-prepared map, is used to delineate both the Special Flood Hazard Areas (the 100-year floodplain) and the flood-risk premium zones in a community. Under Executive Order 11988, FEMA requires local governments that are covered by the National Flood Insurance Program to pass and enforce a floodplain management ordinance that specifies minimum requirements for any construction within the 100-year floodplain. FEMA administers the National Flood Insurance Program, which includes floodplain management and flood hazard mapping and provides subsidized flood insurance to communities that comply with FEMA regulations to limit development in floodplains.

## **State**

### **Porter-Cologne Water Quality Control Act**

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act) was established and implemented by the SWRCB. The SWRCB is the primary State agency with responsibility for protecting the quality of the State's surface and groundwater supplies, or waters of the State. Waters of the State are defined more broadly than waters of the United States (i.e., any surface water or groundwater, including saline waters, within the boundaries of the State). This includes waters in both natural and artificial channels. It also includes all surface waters that are not waters of the United States or non-jurisdictional wetlands, which are essentially distinguished by whether they are navigable. If waters are not navigable, they are considered to be isolated and, therefore, under the jurisdiction of only the Porter-Cologne Act and not the CWA.

The Porter-Cologne Act authorizes the SWRCB to draft policies regarding water quality. The act requires projects that discharge or propose a discharge of wastes that could affect the quality of waters of the State to file a Report of Waste Discharge with the appropriate RWQCB. The Porter-Cologne Act also requires the SWRCB or a RWQCB to adopt basin plans for the protection of water quality.

### **National Pollutant Discharge Elimination System Permit Requirements**

The 1972 amendments to the federal Water Pollution Control Act established the National Pollutant Discharge Elimination System (NPDES) permit program to control discharges of pollutants from any point source. The 1987 amendments to the CWA created a new section, which was devoted to stormwater permitting (Section 402). The Phase I NPDES stormwater program regulates stormwater discharges from industrial facilities, large and medium-sized municipal separate storm sewer systems (MS4s) (i.e., those serving more than 100,000 persons), and construction sites that disturb 5 or more acres of land. CWA Section 402 mandates permits for municipal stormwater discharges, which are regulated under the NPDES General Permit for MS4s. The discharge of stormwater runoff from the MS4 in Union City is permitted under the San Francisco Bay Municipal Regional Permit (MRP) (Order No. R2-2015-0049; NPDES Permit No. CAS612008), which is discussed further below.

### **NPDES General Construction Stormwater Permit**

Most construction activities that disturb 1 acre of land or more are required to obtain coverage under the NPDES General Permit for Construction Activities (Construction General Permit). The SWRCB issued a statewide Construction General Permit (Order No. 2009-0009-DWQ,

NPDES No. CAR000002, as amended by 2010-0014-DWQ and 2012-0006-DWQ), which was adopted on September 2, 2009. Construction activities subject to the Construction General Permit include clearing, grading, and disturbances to the ground, such as stockpiling or excavation, that result in soil disturbances of at least 1 acre to the total land area. The Construction General Permit requires the applicant to file a Notice of Intent (NOI) to discharge stormwater and prepare and implement a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP includes a site map and a description of proposed construction activities, along with a demonstration of compliance with relevant local ordinances and regulations. Also included is an overview of the best management practices (BMPs) that would be implemented to prevent soil erosion and discharges of other construction-related pollutants that could contaminate nearby water resources. Permittees are further required to conduct annual monitoring and reporting to ensure that BMPs are correctly implemented and effective in controlling the discharge of stormwater-related pollutants.

### **Waste Discharge Requirements for Dewatering and Other Low-threat Discharges to Surface Waters**

CWA Section 402 includes waste discharge requirements for dewatering activities. Although small amounts of construction-related dewatering are covered under the Construction General Permit, the San Francisco Bay RWQCB has regulations specific to dewatering activities. These typically involve reporting and monitoring. If dewatering occurs as part of the project at storm drains that lead to San Francisco Bay, the contractor would be required to comply with San Francisco Bay RWQCB dewatering requirements. If contaminated groundwater is encountered during construction (e.g., contamination from chlorinated VOCs), the project sponsor would be required to comply with the San Francisco Bay RWQCB's general requirements (i.e., Order No. R2-2017-0048, Discharge or Reclamation of Extracted and Treated Groundwater Resulting from the Cleanup of Groundwater Polluted by Volatile Organic Compounds, Fuel Leaks, Fuel Additives, and Other Related Wastes [VOC and Fuel General Permit]).

### **Water Quality Control Plan**

San Francisco Bay is under the jurisdiction of the San Francisco Bay RWQCB, which established regulatory standards and objectives for water quality in its Water Quality Control Plan for the San Francisco Bay Basin, commonly referred to as the Basin Plan. Basin plans are updated and reviewed every 3 years. They provide the technical basis for determining waste discharge requirements, taking enforcement actions, and evaluating clean water grant proposals. Each RWQCB, which has region-wide and water body-specific beneficial uses, sets numeric and narrative water quality objectives for several substances and parameters in numerous surface waters in its region. A basin plan must include (1) a statement of beneficial water uses that the RWQCB will protect, (2) the water quality objectives needed to protect the designated beneficial water uses, and (3) strategies to be implemented, with time schedules for achieving the water quality objectives. The Basin Plan was last updated in 2017.<sup>12</sup>

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<sup>12</sup> San Francisco Bay Regional Water Quality Control Board. 2017. *Water Quality Control Plan for the San Francisco Bay Basin*. Last updated: May 2017. Available: [http://www.waterboards.ca.gov/rwqcb2/basin\\_planning.shtml](http://www.waterboards.ca.gov/rwqcb2/basin_planning.shtml). Accessed: February 19, 2020.

### **Municipal Stormwater Pollution Prevention Program – Municipal Regional Stormwater NPDES Permit**

The San Francisco Bay RWQCB issued the most recent MS4 Phase I San Francisco Bay Region Municipal Regional Stormwater NPDES Permit, No. CAS029718 (Order No. R2-2015-0049 NPDES Permit No. CAS612008, as amended by Order No. R2-2019-0004), on November 19, 2015. Several Cities and counties (including Union City) are covered as permittees under this permit and required to address issues regarding the protection of stormwater quality in their jurisdictions through implementation of stormwater programs. Union City is a permittee under the San Francisco Bay MS4 Permit for the discharge of stormwater runoff from the MS4s.

The project would be required to comply with Provision C.3 of the San Francisco Bay MS4 Permit. Provision C.3 requires adoption and implementation of low-impact development (LID) techniques, including, among other things, infiltration and biotreatment, the use of vegetated swales and retention basins, and minimal use of impermeable surfaces, to manage stormwater and maintain a site's predevelopment runoff rates and volumes.

### **Sustainable Groundwater Management Act**

The Sustainable Groundwater Management Act of 2014, a comprehensive three-bill package, was signed into State law by Governor Jerry Brown in September 2014. The Sustainable Groundwater Management Act provides a framework for sustainable management of groundwater supplies by local authorities, with a limited role for State intervention only if necessary to protect the resource. The plan is intended to ensure a reliable groundwater water supply for California for years to come.

The Sustainable Groundwater Management Act requires the formation of local Groundwater Sustainability Agencies, which are required to adopt Groundwater Sustainability Plans (GSPs) to manage the sustainability of groundwater basins. Adoption of a GSP is required for all high- and medium-priority basins, as identified by the Department of Water Resources; otherwise, the agencies must submit an alternative to a GSP. The Sustainable Groundwater Management Act also requires governments and water agencies with high- and medium-priority basins to halt overdraft practices and bring groundwater basins into a balanced level of pumping and recharge. The Santa Clara Valley – Niles Cone Subbasin is a medium-priority basin. Because of ongoing groundwater management in the basin, an alternative to a GSP was approved for the Santa Clara Valley – Niles Cone Subbasin in 2019.

## **Local**

### **Alameda Countywide Clean Water Program**

The Alameda Countywide Clean Water Program facilitates local compliance with the federal Clean Water Act and coordinates activities with other pollution prevention programs, such as those pertaining to wastewater treatment plants, hazardous waste disposal, and water recycling. The Clean Water Program also works with public agencies from around the county to foster a culture of stewardship by educating residents and businesses alike on how to prevent stormwater pollution. Provision C.3 guidelines from the Alameda Countywide Clean Water Program are consistent with and used to implement the requirements of the Municipal Regional Stormwater Permit issued by the San Francisco Bay RWQCB. The Clean Water Program conducts water quality monitoring on behalf of its member agencies throughout Alameda County, including the City, and coordinates with other stormwater programs. The goals and minimum monitoring activities are described in Provision C.8 of the San Francisco Bay MS4 Permit. Monitoring results are summarized in the reports submitted to the San Francisco Bay RWQCB.



### **Alameda County Water District Urban Water Management Plan**

Alameda County Water District's Urban Water Management Plan (UWMP), 2015 –2020, was prepared in response to California's Urban Water Management Planning Act, Water Code Sections 10610 through 10656. The act requires every urban water supplier that provides water to more than 3,000 customers for municipal purposes or supplies more than 3,000 acre-feet of water annually to prepare and adopt an UWMP and update the plan every 5 years. The UWMP discusses the status of projects, programs, and studies regarding water supply planning, water conservation, and recycled water. The district manages several programs and projects in the county that focus on water quality, pollution prevention, water conservation, and stream and creek protection.

### **City of Union City 2040 General Plan**

The *City of Union City 2040 General Plan* (General Plan) includes the following goals and policies associated with hydrology and water quality:

**Goal S-5:** To provide flood protection that minimizes potential damage while creating or enhancing existing recreational opportunities, wildlife habitats, and water quality.

**Policy S-5.1: Participate in the National Flood Insurance Program.** The City shall continue to participate in the National Flood Insurance Program by maintaining a floodplain management ordinance that complies with program requirements.

**Policy S-5.2: Development in Special Flood Hazard Areas.** The City shall ensure new development within Special Flood Hazard Areas (i.e., areas subject to inundation from flooding with a 1 percent annual chance) is consistent with applicable flood-related requirements, including those identified through the National Flood Insurance Program.

**Policy S-5.3: Work with Alameda County Flood Control District.** The City shall continue to work with the Alameda County Flood Control District to minimize flood hazards in the community.

**Policy S-5.4: Locate Critical Facilities Outside the 100-Year Floodplain.** The City shall require new critical facilities (e.g., hospitals, emergency command centers, communication facilities, fire stations, police stations) to be located outside Special Flood Hazard Areas or, where such a location is not feasible, designed to mitigate potential flood risks and ensure functional operation during a flood event.

**Policy S-5.5: Access to Flood Zone Information.** The City shall continue to provide information to the public regarding the locations of Special Flood Hazard Areas.

**Policy S-5.6: Coordinate to Maintain Creeks.** The City shall support efforts by the Alameda County Flood Control District to maintain the creeks for flood control purposes and actively encourage East Bay Regional Parks to manage and maintain creeks to prevent the residue of brush from clogging the creekbeds.

**Goal PF-5:** Provide a stormwater collection system that reduces excess runoff and minimizes the flood potential from existing and future development, reduces impacts on water quality, improves environmental quality, and incorporates nature-based flood management and green infrastructure.

**Policy PF-5.1: Drainage Facilities Maintenance.** The City shall require the maintenance of all drainage facilities, including detention basins and both natural and manmade channels, to ensure that their full carrying capacity is not impaired.

**Policy PF-5.2: Encourage Natural Stormwater Drainage.** The City shall encourage the use of natural stormwater drainage systems in a manner that preserves and enhances natural features.

**Policy PF-5.3: Encourage Natural Vegetation and Infiltration within Flood Control Facilities.** The City shall coordinate with the Alameda County Flood Control District to ensure that flood control facilities in natural areas use “soft” channel structures rather than lined channels and culverts to maintain, to the greatest extent possible, natural vegetation and infiltration.

**Policy PF-5.4: Surface Drainage Disposal.** The City shall ensure that new development accommodates surface drainage disposal in one of the following ways:

- a. Green infrastructure to pretreat drainage prior to entering the City’s storm drain system; or
- b. On-site drainage that is retained and treated within the development.

**Policy PF-5.5: Compliance with Nonpoint-Source Pollutant Discharge Requirements.** The City shall ensure that new drainage systems that receive approval from the City or are under the jurisdiction of the City comply with applicable State and federal nonpoint-source pollutant discharge requirements.

**Policy PF-5.6: Stormwater Detention Facilities.** The City shall consider the use of stormwater detention facilities, with green infrastructure elements, to mitigate drainage impacts and reduce storm drainage system costs in new development.

**Policy PF-5.7: Evaluate Need for On-Site Detention and/or Retention Facilities.** The City shall evaluate public and private development projects to determine the effects of the projects on on-site and downstream drainage patterns and associated ecological systems. Projects may require on-site detention or retention facilities to maintain existing stormflows and velocities in natural drainage systems. Any new facilities shall incorporate green infrastructure elements identified in the Green Infrastructure Plan to the extent feasible.

**Policy PF-5.8: Minimize Erosion and Silt from Hillside Area.** The City shall continue to work with property owners in the Hillside Area to minimize erosion and conveyance of silt downstream to City drainage facilities.

**Policy PF-5.9: Full Trash Capture Devices in Private Development.** The City shall require all new development and any redevelopment of a project site to install full trash capture devices in their systems prior to connecting into the City’s storm drainage system.

**Policy PF-5.10: Full Trash Capture Devices in City Infrastructure.** The City shall install full trash capture devices in the City’s storm drainage system in all high and medium trash-generating areas within the City.

**Policy PF-5.11: Improve Stormwater Treatment in Established Neighborhoods.** The City shall improve stormwater treatment in established neighborhoods by implementing programs such as “green streets” programs for stormwater management, as identified in the Green Infrastructure Plan; street sweeping; parking enforcement for street sweeping; and the installation of trash capture devices.

**Policy PF-5.12: Prepare and Implement Green Infrastructure Plan.** The City shall prepare and implement a Green Infrastructure Plan to facilitate the development of an LID drainage design into public and private streets, parking lots, building roofs, and other facilities to achieve water quality, flow reduction, and other environmental and community benefits.

**Policy PF-5.13: Maximize On-site Infiltration and Detention.** The City shall work with developers to ensure impervious areas are minimized and that opportunities for groundwater infiltration, treatment, and on-site detention to meet hydromodification management are maximized prior to releasing the drainage to the public stormwater system, to the extent feasible.

**Goal RC-3:** To protect and enhance the natural qualities of Union City's groundwater, surface water, and streams and ensure sufficient water supplies of good quality for all beneficial uses.

**Policy RC-3.1: Work with the Alameda County Flood Control District to Protect Streams and Creeks.** The City shall work with the Alameda County Flood Control District in an effort to restore and protect the natural conditions along stream and creek corridors; improve water quality; provide for enhanced animal, plant, and fish habitats; and provide for additional recreation amenities.

**Policy RC-3.2: Work with the Alameda County Water District to Protect and Recharge Aquifers.** The City shall work with the Alameda County Water District to protect and recharge the Niles Cone water-bearing aquifers through a variety of measures, including the incorporation of green infrastructure elements into new development projects.

**Policy RC-3.3: Erosion Control.** The City shall require an erosion control plan for new construction and shall ensure, through review and inspection, that erosion control is being implemented correctly on construction sites.

**Policy RC-3.4: Compliance with Regional Municipal Stormwater Permit.** The City shall require new development to comply with the most recent version of the San Francisco Bay Regional Municipal Stormwater Permit, which focuses on the incorporation of LID measures into development projects to improve the quality of stormwater runoff, including, but not limited to, the incorporation of permeable paving, green roofs, cisterns, biotreatment (e.g. rain gardens, bio-retention units, bioswales, and planter/tree boxes), hydro-modification management, and the preservation of undeveloped open space.

**Policy RC-3.5: Incorporate LID Measures into City Projects and Existing Roadways.** The City shall incorporate LID measures using green streets infrastructure, as identified in the Green Infrastructure Plan, such as rain gardens, infiltration planters, tree wells, and permeable paving, to improve the quality of stormwater runoff within City projects and within existing roadways to the extent feasible.

**Policy RC-3.6: Soil Conservation Practices.** The City shall require new development to incorporate soil conservation best practices to minimize erosion and related impacts on water quality and drainage courses.

**Policy RC-3.7: Public Education to Protect Stormwater Quality.** The City shall continue to support and coordinate with the Alameda Countywide Clean Water Program on its public outreach and education campaign.

**Goal SA-4:** To transform the Station East area into a vibrant 21<sup>st</sup>-century employment district that is a center of prosperity and innovation, focused on providing a quality experience for those who live and work in Union City.

**Policy SA-4.17: Enhance Flood Control District Channel.** The City shall work with the Alameda County Flood Control District to enhance existing flood control channels within the Station East area as open space amenities.

**Policy SA-4.24: Drainage.** New development within the Station East area shall provide adequate drainage facilities on-site. The City shall explore options for drainage improvements that serve the entire area.

### **Decoto Industrial Park Study Area Specific Plan**

The Decoto Industrial Park Study Area Specific Plan (DIPSA Specific Plan) (most recently amended in July 2006) includes the following policies associated with hydrology and water quality:

**Goal 18:** Review development to ensure that adequate measures have been taken to minimize threats to public safety and property damage from natural hazards.

**Objective c.** Provide adequate site drainage to minimize localized problems from ponding.

**Utilities General Policy 5:** To the greatest extent possible, water, wastewater, and storm drains should be designed for gravity flow to increase reliability and reduce energy costs.

**Stormwater Drainage/Flood Control System Policy 2:** Development within the DIPSA shall take place such that no increase occurs in the peak 100-year flow rate at the point where Line M discharges from the DIPSA.

**Toxic and Hazardous Substances Policy 4:** New development within the DIPSA shall be prohibited from drilling water wells in the area for any purpose.

**Environmental Policy 2:** All new development shall comply with the provisions of Title 21 (Grading and Erosion and Sedimentation Control) of the City Municipal Code. In addition, construction sites should be watered twice a day to reduce dust emissions. On particularly windy days, sites should be watered more frequently, as needed.

**Environmental Policy 3:** Non-residential uses shall comply with the Alameda County Clean Water Program.

### ***Union City Municipal Code***

Title 15, Chapter 15.85, Grading and Erosion Control of the Union City Municipal Code provides rules and regulations to control grading, erosion, and earthwork, including excavations, fills, and embankments; establishes the administrative procedure for the issuance of permits; and provides for approval of plans and inspection of grading. Chapter 15.85.050, Municipal Regional Stormwater Permit of the Union City Municipal Code requires that all construction-related activities throughout the City, including designs for new development and site controls for redevelopment and construction, shall conform to the requirements of the most current edition of the San Francisco Bay RWQCB MRP.

## 4.8.2 Environmental Impacts

This section contains the impact analysis for the proposed project as it relates to hydrology and water quality. The methods used to determine the potential project-related impacts, as well as the thresholds of significance used to conclude whether or not an impact would be significant, are described below. Measures that would mitigate (i.e., avoid, minimize, rectify, eliminate, or compensate for) significant impacts are included within each impact discussion where they have been deemed necessary and appropriate.

### 4.8.2.1 Thresholds of Significance

California Environmental Quality Act (CEQA) Guidelines Appendix G (14 California Code of Regulations [CCR] 15000 et seq.) identifies the significance criteria to be considered in determining whether a project could have significant impacts on existing hydrology and water quality. Would the project:

- Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?
- Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project would impede sustainable groundwater management of the basin?
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or the addition of impervious surfaces, in a manner that would:
  - a. Result in substantial erosion or siltation on- or off-site;
  - b. Substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or offsite;
  - c. Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
  - d. Impede or redirect flood flows?
- In flood hazard, tsunami, or seiche zones, risk a release of pollutants due to project site inundation?
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

### 4.8.2.2 Methods for Analysis

All project elements were analyzed by comparing baseline conditions, as described in the *Environmental Setting*, to conditions during construction and/or operation of the project. The evaluation of potential hydrologic and water quality impacts is based on a review of existing documents and studies that address water resources in the vicinity of the project area. Various online data sources, such as the State Water Board's 2014/2016 Integrated Water Quality Report, the San Francisco Bay Regional Basin Plan, and FEMA Flood Insurance Rate Maps, were also reviewed to identify current water quality and hydrologic concerns. The analysis focuses on issues related to surface hydrology, groundwater supply, surface and groundwater quality, and flood

hazards. The key construction-related impacts were identified and evaluated qualitatively, based on the physical characteristics of the project site and the magnitude, intensity, location, and duration of activities. Potential project-related operational impacts were also analyzed, based on their potential to result in adverse impacts on hydrology or water quality. Proposed project conditions were compared to existing conditions identified in City planning documents, including the General Plan.

As described in Section 4, *Environmental Impact Analysis*, subsequent to the drafting of this EIR, the applicant indicated that the residential units associated with proposed project would increase by 10, from 964 to 974 units. As described therein, the analysis presented throughout this EIR adequately accounts for the potential environmental impacts of the 974 new residential units.

#### 4.8.2.3 Issues Not Evaluated Further

##### **In flood hazard, tsunami, or seiche zones, risk a release of pollutants due to project site inundation.**

The project site is not within a planned tsunami inundation area, as depicted on the Tsunami Inundation Map for Emergency Planning prepared by the California Emergency Management Agency and California Geological Survey. Therefore, the project site would not be subject to inundation by tsunami. There are no reservoirs adjacent to the project site; therefore, the project site would not be prone to inundation by seiche. The project is within FEMA Zone X (unshaded), an area above the 500-year flood level and outside the FEMA 100-year floodplain. Therefore, the project site would not be subject to inundation by flooding. Therefore, there would be **no impact** related to a release of pollutants due to project site inundation in a flood hazard, tsunami, or seiche zone. This topic is not addressed further in this EIR.

#### 4.8.2.4 Impacts and Mitigation Measures

##### **Impact WQ-1: The project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. (Less than Significant)**

##### **Construction**

Project construction activities such as grading, demolition, the stockpiling of spoil materials, and other construction-related earth-disturbing activities could result in short-term water quality impacts. These would be associated with soil erosion and subsequent sediment transport to adjacent properties, roadways, or watercourses via storm drains. Sediment transport to local drainage facilities such as drainage inlets, culverts, and storm drains would end up in creeks and San Francisco Bay and result in water quality impacts. Construction activities could also generate dust, litter, oil, and other pollutants that could temporarily contaminate runoff from the project site.

Construction activities must comply with the NPDES Construction General Permit, the MRP, the City's Municipal Code, and local general plans, which contain standards to ensure that water quality is not degraded. As part of the Construction General Permit, standard erosion control measures and BMPs would be identified in a SWPPP and implemented during construction to reduce sedimentation in waterways and any loss of topsoil. Compliance with the Construction General Permit and the Union City Municipal Code requirements regarding grading permits would

ensure that BMPs would be implemented to control soil erosion and sedimentation and restrict non-stormwater discharges from the construction site as well as any release of hazardous materials. As a performance standard, the selected BMPs would represent the best available, economically achievable technology and the best conventional pollutant control technology.

Other potential water quality impacts include chemical spills into storm drains or groundwater aquifers if proper minimization measures are not implemented. However, BMPs as required in the SWPPP and the San Francisco Bay MS4 Permit, ranging from source control to treatment of polluted runoff, would be implemented to reduce pollutants in stormwater and other nonpoint-source runoff. BMPs can include watering active construction areas to control dust during earthmoving activities, using water sweepers to sweep streets and haul routes, and installing erosion control measures (e.g., silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dykes) to prevent silt runoff to public roadways, storm drains, or waterways. As appropriate, disturbed soil would be revegetated as soon as possible with the appropriate selection of plants.

Demolition would generate approximately 80,000 cubic yards (cy) of demolished trees, landscaping, soil, concrete, and asphalt, which would be exported from the project site during the approximately 4.5-year construction period. Pursuant to the SWPPP and the Construction General Permit, no disturbed surfaces would be left without erosion control measures in place during the rainy season, which generally occurs between November and March. In addition to compliance with the Construction General Permit, the project would also be required to comply with the General Plan, which requires development and implementation of an Erosion Control Plan during construction. No surface water features are present within the project area; therefore, construction would not involve dredge-and-fill activities.

Dewatering during project construction is not anticipated. However, in the event that groundwater is encountered, a limited amount of construction-related dewatering is covered under the Construction General Permit as well as San Francisco Bay RWQCB regulations specific to dewatering. Because the project site contains residual VOC concentrations in groundwater, the project would comply with dewatering permit requirements, including discharge sampling and reporting, as well as the VOC and Fuel General Permit (Order No. R2-2012-0012) if contaminated groundwater is encountered. The project would comply with all dewatering requirements to ensure water quality and beneficial uses are not affected and proper treatment measures are implemented prior to discharge. The project would also be required to comply with the City's MS4 requirements and prepare a stormwater control plan, which would require construction-site control and erosion control BMPs to reduce impacts related to stormwater runoff. Compliance with these requirements would ensure that construction activities would not result in a violation of water quality standards or waste discharges requirements or otherwise result in water quality degradation. Therefore, this impact would be *less than significant*.

## Operation

As shown in Table 4.8-1, the project would result in an approximate 40 percent increase (578,912 sf) in impervious surfaces on the project site.

**Table 4.8-1. Impervious Areas within the Project Site**

	<b>Square feet</b>	<b>Acres</b>	<b>Percentage</b>
Existing Impervious	593,287	13.62	41
Existing Pervious	862,924	19.81	59
<b>Total</b>	<b>1,456,200</b>	<b>33.43</b>	<b>100</b>
Proposed Impervious	1,172,200	26.91	80
Proposed Pervious	243,500	5.59	20
<b>Total</b>	<b>1,456,200</b>	<b>33.43</b>	<b>100</b>
Change in impervious	578,912	13.29	40

Source: Balance Hydrologics. 2020. *Updated Summary of Stormwater Infrastructure Modeling for the Bradford Way Project City of Union City*. September 1.

The project would be required to comply with MRP Provision C.3 because it would involve a new or replaced impervious area greater than 5,000 sf. Provision C.3 of the MRP requires that new development mitigate impacts on water quality by incorporating LID measures, including pollutant source control, stormwater treatment, and flow control measures. LID treatment measures include “capture and re-use” or rainwater harvesting, infiltration, bio-retention basins or flow-through planters, and green roofs. Stormwater would be treated per Alameda County Provision C.3 requirements prior to discharge to the storm drain system.

In compliance with Alameda County stormwater requirements, the project must consider rainwater harvesting and reuse, infiltration, and evapotranspiration as LID treatment measures. The project would incorporate stormwater treatment to the maximum extent practicable. The project is not proposing 100 percent LID treatment due to insufficient space available for bioretention treatment to meet sizing requirements and due to minimum spacing requirements between utilities and landscaping<sup>13</sup>. Overall, these factors limit the available area where LID treatment would typically be placed.<sup>13</sup> The project site would use bio-retention areas within the public rights of way to treat runoff from public streets. In addition, the MRP defines special projects and the criteria that allow LID treatment reduction credits. Because the project site is within approximately 0.5 mile of the Union City Bay Area Rapid Transit station, adjacent to a high quality transit corridor (Decoto Road), and has a minimum density of more than 30 dwelling units per acre, it qualifies as a Category C special project. Therefore, in accordance with the Category C special project classification, the project is permitted to use some non-LID treatment measures to comply with water quality requirements. The project would use LID treatment reduction credits under Special Projects Category C, Transit-Oriented Development, to treat stormwater where areas do not have enough open space to allow traditional bio-retention areas.

On-site LID treatment would be optimized throughout the project site. Multiple drainage management areas would be created to treat runoff from proposed public streets within small bio-retention areas. The at-grade surface parking would be routed to LID treatment areas within the public right of way. The proposed community parks and paseo design are not yet complete; however, treatment methods, such as self-treating areas, self-retaining areas and reduced impervious surfaces, would be implemented to the extent feasible once park design and features are

<sup>13</sup> CBG Engineers. 2020. *Station East – LID Reduction Narrative Memorandum*. September 15.



finalized. The project also proposes to construct stormwater treatment facilities for the north side of existing Bradford Way. The project has incorporated stormwater treatment to the maximum extent practicable. Preliminary stormwater calculations indicate 55.6 percent of the site would be treated by LID treatment measures and 44.4 percent by non-LID treatment devices, such as certified media filters. The site would treat approximately 0.6 percent more stormwater through bio-retention areas than required (per the applicable LID reduction credits).<sup>14</sup>

The stormwater management measures proposed for the project would reduce pollutant discharges from stormwater through bio-retention. Provision C.3 also states, however, that all projects, regardless of size, should consider incorporating appropriate source control and site design measures that minimize stormwater pollutant discharges to the maximum extent practicable. Regardless of a project's need to comply with Provision C.3, the "maximum extent practicable" standard would be applied.

To further manage stormwater, the General Plan and DIPSA Specific Plan emphasize green infrastructure. The project would include new landscaping along the perimeter of the site as well as between the planning areas. The landscape design would minimize stormwater runoff and promote surface filtration. In addition, the City has adopted a Green Infrastructure Plan. The plan addresses stormwater treatment by implementing programs such as "green streets" programs for stormwater management and developing LID designs for public and private streets, roofs, and other area to ensure water quality. The MRP also requires green landscaping in public and private properties to capture stormwater from paved surfaces such as roads, parking lots, and other areas where stormwater collects pollutants, which would otherwise be conveyed to San Francisco Bay. Green infrastructure also reduces runoff rates and volumes and allows infiltration of stormwater for groundwater recharge.

The project would be designed and maintained in accordance with City, Alameda County, and San Francisco Bay RWQCB water quality requirements, such as the San Francisco Bay MS4 Permit, Alameda Countywide Clean Water Program, General Plan and DIPSA Specific Plan policies, and local municipal codes. Stormwater runoff would be treated using LID measures, as required, such as bio-retention areas. Therefore, implementation of the project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade water quality. Therefore, this impact would be *less than significant*.

**Impact WQ-2: The project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project would impede sustainable groundwater management of the basin. (Less than Significant)**

Groundwater at the project site has been identified between approximately 28 and 70 feet below the ground surface.<sup>15,16</sup> A recent review of historic monitoring found the minimum depth to groundwater to be approximately 25 feet, with an average depth of 30 to 35 feet.<sup>17</sup> Fluctuations in groundwater may occur seasonally and over a period of years because of variations in precipitation, temperature, irrigation, and other factors. To accommodate utility trenches, the project would excavate to a maximum depth of approximately 13.5 feet below the ground surface and dewatering should not be necessary. In the event that groundwater is encountered during construction,

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<sup>14</sup> Ibid.

<sup>15</sup> ENGeo. 2016. *Phase I Environmental Site Assessment – Zwissig Way Parcels, Union City, California*. April.

<sup>16</sup> ENGeo. 2014. *Phase I Environmental Site Assessment – 33945 7<sup>th</sup> Street, Union City, California*. October.

<sup>17</sup> ENGeo. 2016. *Phase I Environmental Site Assessment – Zwissig Way Parcels, Union City, California*. April.

dewatering would be conducted on an as-needed basis during the construction phase. Groundwater supplies would not be used during construction activities or operation. There are approximately 22 existing groundwater monitoring wells on the project site. Some of the existing 22 groundwater monitoring wells on the project site would be protected and the rest destroyed in accordance with Alameda County Water District requirements.

The project site is within the Santa Clara Valley – Niles Cone Groundwater Basin, which is classified as a medium-priority basin. Beneficial uses of the basin include water supply. The Alameda County Water District stores State Water Project-supplied water that it does not use in groundwater storage areas in the Niles Cone Groundwater Basin and the Semitropic Groundwater Bank or the surface water storage area at San Luis Reservoir for use in subsequent dry years when State Water Project supplies are reduced.

As shown in Table 4.8-1, the amount of impervious area within the project site would increase upon project completion, with approximately 20 percent of the project site covered with pervious surfaces and 80 percent of the project site covered with impervious surfaces. The project would also include new landscaping along the perimeter of the site as well as between the planning areas. Open space would cover 9.83 acres, consisting of 1.83 acres of public parks and a paseo, 1.95 acres of private landscaping, 2.25 acres of semi-private and private open space, 0.96 acres of streetscape landscaping, 1.42 acres of bio-retention areas, and 1.42 acre of retail plazas and a promenade. Bio-retention areas would be located throughout the project site, including bioretention at the west end of the site and primarily within the public rights-of way, to treat runoff from public streets and capture and naturally filter contaminants from the site's stormwater runoff. Overall, the proposed open space would allow for groundwater infiltration and groundwater recharge. New planting areas would slow water, allowing it to percolate into the ground, thereby providing increased benefits for groundwater recharge. The project would, therefore, not substantially decrease groundwater supplies and would not impede sustainable groundwater management of the basin. Therefore, this impact would be *less than significant*.

**Impact WQ-3: The project could substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or the addition of impervious surfaces, in a manner that would:**

- a. Result in substantial erosion or siltation on- or off-site;**
- b. Substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site;**
- c. Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or**
- d. Impede or redirect floodflows. (Less than Significant)**

## **Construction**

During construction, stormwater drainage patterns could be temporarily altered. However, the project would implement BMPs, as required in the project's SWPPP, to minimize the potential for erosion or siltation in nearby storm drains and temporary changes in drainage patterns during construction. Implementation of an Erosion Control Plan indicating the BMPs to be implemented would be required during construction. Thus, BMPs would be implemented to control

construction site runoff, ensure proper stormwater control and treatment, and reduce the discharge pollutants to the storm drain system. The downstream channels are engineered flood control facilities and are not prone to adverse impacts from changes in runoff.<sup>18</sup> Therefore, the potential for an exceedance of drainage capacities and associated impacts would be ***less than significant***.

## Operation

The Alameda Countywide Clean Water Program requires consideration of specific strategies, including rainwater harvesting and reuse, infiltration, and evapotranspiration, prior to adopting bio-retention strategies. Because the project qualifies under Special Projects Category C (Transit-Oriented Development) it would use LID treatment reduction credits for areas without adequate open space for traditional bio-retention areas. The project would receive a LID reduction credit of 45 percent. The remaining 55 percent of the impervious area would be treated with bio-retention areas.

After using all non-LID treatment credits available, the project would be required to provide approximately 13,000 sf of bio-retention treatment areas. For consistency with Alameda Countywide Clean Water Program requirements, the project applicant would be required to identify whether preferred strategies are feasible on-site. However, the potential for these methods to be feasible at the project site is unlikely due to insufficient space to meet bio-retention treatment sizing requirements and spacing requirements between utilities and landscaping.

On-site LID treatment would be optimized throughout the project site, including drainage management areas within small bio-retention areas to treat runoff from proposed public streets and routing at-grade surface parking runoff to LID treatment areas. Treatment methods such as self-treating areas, self-retaining areas, and reduced impervious surfaces would be implemented to the extent feasible as well. The project also proposes to construct stormwater treatment facilities for the north side of existing Bradford Way. The project has incorporated stormwater treatment to the maximum extent practicable. Preliminary stormwater calculations indicate 55.6 percent of the site would be treated by LID treatment measures and 44.4 percent by non-LID treatment devices, such as certified media filters.<sup>19</sup>

To meet local, State, and federal requirements for water quality treatment, as well as flood control, stormwater management facilities and DIPSA policy requirements would also be incorporated. Post-construction water quality treatment measures, as required by Provision C.3 regulations, such as bio-retention areas, would be implemented as part of the project. Stormwater runoff would be infiltrated into native soil to recharge groundwater. A Stormwater Control Plan Report, a description of the site design and source control measures, and sizing calculations for stormwater treatment measures would be submitted to the City with the final design plans.

As shown in Table 4.8-1, the impervious area of the project site would increase approximately 41 percent to approximately 80 percent with implementation of the project. This substantial increase in impervious surfaces could result in an increase in surface water runoff and stormwater discharges to the storm drain system.

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<sup>18</sup> Balance Hydrologics. 2020. *Updated Summary of Stormwater Infrastructure Modeling for the Bradford Way Project City of Union City*. September 1.

<sup>19</sup> CBG Engineers. 2020. *Station East – LID Reduction Narrative Memorandum*. September 15.

Two storm basins would be located in the western portion of the project site, outside the public right-of-way, to receive runoff from the development by detaining the site's stormwater runoff prior to discharging to the storm drain system. The basins, totaling approximately 1.42 acres, would be located immediately south of Planning Areas 9 and 10. Stormwater runoff would be collected from the roofs of the proposed buildings and all impervious areas. Ultimately, stormwater would be directed to the basins, which would slowly release the discharge from the site.

The site will predominantly drain to a single flow control basin located along the southwest edge of the project site. As a result, a large portion of runoff from the site will join the Line M-3 system downstream of the existing points of connection reducing flows in some of the existing off-site drainage infrastructure. The proposed storm drain system would be more efficient compared to pre-project conditions. Due to the size of the project and the associated drainage area, flood control guidelines require consideration of the 15-year and 100-year design storms. Under pre-project conditions, peak flow rates for the 15-year, 24-hour design storm were predicted as 13.2 cubic feet per second (cfs) to the 7<sup>th</sup> Street storm drain system and 19.3 cfs for the project site as a whole. The peak flow rates are reduced in the post-project case to 2.3 cfs to 7<sup>th</sup> Street and 9.0 cfs overall. Peak flow rates would decrease due to reductions in contributing drainage areas. Implementation of a stormwater basin would modulate flows to the Zwissig Way storm drain line and would yield an overall reduction in peak flow rates to the Zone 5 Line M, avoiding impacts on the off-site system. For the capacity of the Zwissig Way storm drain line, the stormwater basin would reduce peak flow rates to an extent that the 15-year design flow can be conveyed with ample freeboard along the line. For the 100-year design storm, pre-project peak flow rates of 18.5 cfs to 7<sup>th</sup> Street and 27.0 cfs overall were predicted and reduced to 3.2 cfs and 12.3 cfs, respectively, in the post-project condition. The maximum water surface elevation in the basin for the 100-year event is modeled as 58.4 feet, which would allow for at least one foot of freeboard to the basin top of bank. Storage in the proposed bioretention facilities distributed throughout the site would also reduce peak flow rates. Therefore, on-site detention would reduce peak flow rates to below the pre-project industrial land use levels, avoiding adverse impacts to the flood control channels at and downstream from the site.<sup>20</sup>

Future buildout in the project vicinity, including the undeveloped area south of the project, and associated storm capacity in the Zwissig Way storm drain line were also considered. Modeled results indicated that peak flow rate from the undeveloped Parcel 1B south of Zwissig Way can be accommodated in the existing storm drain line. The minimum predicted freeboard (to manhole rim) is approximately 4 feet or more. Implementation of stormwater management facilities, including water quality and hydromodification management facilities, would further reduce peak flow rates.<sup>21</sup> Therefore, as indicated by modeling results, the proposed stormwater basin can discharge to the existing storm drain line in Zwissig Way without the need for upsizing the off-site infrastructure.

The DIPSA Specific Plan established policies and standards to ensure proper stormwater discharge and address the identified system deficiencies. In compliance with DIPSA Specific Plan policies, development within the DIPSA, including the project site, would not increase the peak

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<sup>20</sup> Balance Hydrologics. 2020. *Updated Summary of Stormwater Infrastructure Modeling for the Bradford Way Project City of Union City*. September 1.

<sup>21</sup> Balance Hydrologics. 2020. *Additional Hydraulic Modeling of the Existing Zwissig Way Storm Drain Line, City of Union City*. October 16.

15- or 100-year flow rate where Line M discharges from the DIPSA. The storm drain system for the project would be designed to meet Alameda County Flood Control District design standards, which require drainage facilities to convey total runoff from a 10-year storm. All runoff would drain to the Line M system, which would convey discharges to the Alameda Creek flood control channel. Because project flows would not discharge into a concrete-lined channel, the project site would also need to comply with hydromodification control requirements to ensure that stormwater runoff rates would not increase. In addition, the development would not redirect runoff to adjacent properties or infrastructure. Flow-duration controls would be in compliance with RWQCB MRP management objectives. In addition, all the downstream channels are engineered flood control facilities and are not prone to adverse impacts from changes in runoff. The project is taking a conservative approach to flow-duration controls by avoiding negative impacts for runoff rates ranging from 10 percent of the pre-project 2-year flow to the pre-project 10-year flow. Therefore, the potential for an exceedance of drainage capacities and associated impacts would be *less than significant*.

**Impact WQ-4: The project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. (Less than Significant)**

Project construction and operation would comply with local, State, and federal regulations, including the NPDES Construction General Permit, Basin Plan, San Francisco Bay MS4 Permit, and the City's Municipal Code. Commonly practiced BMPs, as required by these regulations, would be implemented to control construction site runoff and reduce the discharge of pollutants to storm drain systems from stormwater and other nonpoint-source runoff. As part of compliance with permit requirements during ground-disturbing or construction activities, implementation of water quality control measures and BMPs would ensure that water quality standards would be achieved, including the water quality objectives that protect designated beneficial uses of surface and groundwater, as defined in the Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan). Construction runoff would also have to be in compliance with the appropriate water quality objectives for the region. The NPDES Construction General Permit requires stormwater discharges not to contain pollutants that cause or contribute to an exceedance of any applicable water quality objectives or water quality standards, including designated beneficial uses. Therefore, the project would not obstruct implementation of a water quality control plan.

Groundwater dewatering is not anticipated during project construction. In addition, groundwater would not be used during construction activities or operation. Biotreatment areas would be located in the western portion of the project site and within the public rights-of-way, and landscaping throughout the planning areas would allow groundwater recharge. Therefore, the project would not obstruct implementation of a sustainable groundwater management plan. In addition, implementing the appropriate City General Plan policies would require the protection of groundwater resources, as required by a sustainable groundwater management plan. Therefore, construction and operation of the project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Therefore, this impact would be **less than significant**.

## Cumulative Impacts

### **Impact C-WQ-1: The project, in combination with past, present, and reasonably foreseeable future projects, would not result in a significant cumulative impact on hydrology and water quality. (Less than Significant)**

The geographic context for the analysis of cumulative impacts associated with surface hydrology and water quality is the Lower Alameda Creek sub-watershed. The context for groundwater hydrology is the Santa Clara Valley Groundwater Basin. The context for cumulative hydrology and water quality impacts is geographic and a function of whether impacts could affect surface water features/watersheds, the City's storm drainage system, or groundwater resources, each of which has its own physical boundary. The approach to cumulative impacts is described in Section 4, *Environmental Impact Analysis*.

The Lower Alameda Creek watershed is predominately open space; however, the southwest portion is considered already built out. Consequently, potential growth in the watershed could degrade water quality through an increase in impervious surface area and an increase in contaminated runoff. Additional cumulative development could occur within the Lower Alameda Creek sub-watershed and the Santa Clara Valley Groundwater Basin. The cumulative projects in the vicinity of the project site and within the Lower Alameda Creek sub-watershed would be constructed on infill sites in highly urbanized areas where there is a substantial amount of existing impervious surface area. All new development is required to handle stormwater in a manner that ensures that flood flows will not increase or be redirected to other areas. Similar to the proposed project, all cumulative projects would be required to include post-construction stormwater management features, such as LID measures, to maintain flows to pre-project conditions. The cumulative projects would be subject to the requirements of the San Francisco Bay MS4 Permit, Alameda Countywide Clean Water Program, General Plan and DIPSA Specific Plan policies, and local municipal codes related to protecting water resources. For these reasons, the proposed project, in combination with other past, present, and reasonably foreseeable future projects, would not result in a significant cumulative hydrology and water quality impact. This impact would be *less than significant*.

## 4.9 Land Use and Planning

This section describes the environmental and regulatory setting for land use and planning. It also describes impacts on land use and planning that would result from implementation of the project and mitigation for significant impacts where feasible and appropriate.

Land use and planning analyses under the California Environmental Quality Act (CEQA) generally consider the compatibility of a project with neighboring areas, changes to or the displacement of existing uses, and the consistency of a project with relevant local land use policies. The magnitude of land use conflicts or compatibility issues depends on the extent to which a project physically divides an established community or conflicts with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect such that an adverse impact on the environment occurs.

No comments regarding land use and planning were received in response to the Notice of Preparation (NOP).

### 4.9.1 Existing Conditions

#### 4.9.1.1 Environmental Setting

##### Existing Land Uses Near the Project Site

The project site is in the southeast corner of the developed portion of the City. The six-parcel, approximately 26.5-acre project site is bound by Decoto Road to the north, 7<sup>th</sup> Street to the east, and Bradford Way and several industrial uses to the south, as shown in Figure 3-1 in Chapter 3, *Project Description*. The project site is adjacent to the Niles subdivision Union Pacific Railroad (UPRR) tracks along the western perimeter.

As shown in Figure 3-2 in Chapter 3, the project site is surrounded by a variety of land uses, including industrial uses to the east and south, agricultural uses to the south, mixed-use commercial areas to the southwest, and residential areas on all sides of the site. Immediately north of the project site, across Decoto Road, are single-family residences. Single-family residences are also located east of the project site, as is Alameda County Fire Station No. 33, across 7<sup>th</sup> Street. In addition, the western portion of the project site is bordered by the Niles subdivision UPRR tracks; just beyond the tracks are the Union City BART station and several multi-family housing developments, including the Station Center Apartments, approximately five stories tall, and the Union Flats Apartments, approximately four stories tall.

The topography, street grid, and sidewalks generally allow the passage of pedestrians and vehicles throughout the blocks that surround the project site; however, passage through the project site is not currently available. The single-track UPRR right-of-way on the southern perimeter of the project site is an existing barrier that affects circulation and passage. However, the UPRR tracks can be crossed safely at Decoto Road where automatic signals with warning signs, flashing lights, warning bells, and movable gates/barriers alert pedestrians and vehicles of an oncoming train and prevent them from crossing the tracks at unsafe times. Recent track upgrades in connection with passenger train operations permit speeds of up to 79 miles per hour in certain areas, depending on track geometry and local restrictions.<sup>1</sup>

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<sup>1</sup> City of Union City. 1994. *Decoto Industrial Park Study Area Specific Plan*. Amended 2006.

## Existing General Plan and Zoning Designations

The *City of Union City 2040 General Plan* (General Plan) designates the project site as Station East Mixed Use (SEMU), within the Greater Station District. The SEMU land use designation allows a range of uses, which may include light industrial, R&D, office, retail and entertainment, hotel, residential, and public plaza uses. The SEMU land use designation was created to encourage an urban mixed-use environment close to the BART station where people can live, work, and shop. The allowable floor area ratio (FAR) range for buildings within this designation is 0.40 to 3.0. The allowable residential density range is 30 to 100 dwelling units per acre; average density is no less than 45 units per acre.

The project site is surrounded by parcels with various General Plan land use designations. The categories include mixed use, public/institutional, residential, and open space. Parcels immediately south and east of the project site have the same SEMU designation as the project site. Specifics about the other land use designations surrounding the project site are provided below.

- Station Mixed-use Commercial (CSMU) is the designation given to parcels southwest of the project site that abut the UPRR tracks. The purpose of the CSMU designation is to allow for a mix of high-intensity retail, office, hotel, and residential uses, as well as public plazas, in the immediate vicinity of the Intermodal Station that allows for live, work, shop, and play. Allowable uses are primarily commercial; high-density residential uses, between 60 and 165 units per net acre, are allowed where appropriate. The allowed FAR for buildings is between 1.0 and 4.0 (with an average of 2.0), with the goal of increasing intensity as the parcels near the BART station.
- Civic Facility (CF) is the designation given to the parcel on the southwest corner of the project site, which currently contains a Pacific Gas and Electric (PG&E) substation, and the parcel to the east and across 7<sup>th</sup> Street, which currently contains Fire Station Number 33. The CF designation provides for public uses, infrastructure, and facilities that are owned by City, county, State, federal, or other public agencies that serve the general public.
- Residential use designations are given to the parcels north (across Decoto Road) and west (across 7<sup>th</sup> Street) of the project site. These areas are primarily within the designation of Residential 6 to 10 Dwelling Units per Gross Acre (6–10); however, several parcels to the east are within the designation of Residential 3 to 6 Dwelling Units per Gross Acre (3–6), both of which allow for detached single-family homes. There are small differences in density, the allowable number of dwelling units per acre, and the lot size range between the two residential designations.
- Open Space (OS) is the designation given to the parcel that contains Shorty Garcia Park, which is north of the project site and across 7<sup>th</sup> Street. Land with this designation contains not only open space but also areas for passive and active recreation, resource management, flood control management, and public safety requirements. Similar and compatible uses include public parks, playgrounds, golf courses and driving ranges, parkways, vista areas, wetlands, wildlife habitats and outdoor nature laboratories, stormwater management facilities, and buffer zones that separate urban development from ecologically sensitive resources.

The project site is zoned Research and Development Campus (RDC).<sup>2</sup> The purpose of the RDC district is to provide space for a flexible range of activities that have low or no nuisance characteristics and a higher development density because of proximity to the BART station and the

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<sup>2</sup> City of Union City Zoning Ordinance, Zoning Map, no date.



Greater Station District. RDC zoning permits buildings at a minimum of two stories in height, with a minimum of two floors finished for full occupancy upon completion of construction. Parcels south and east of the project site are similarly zoned RDC. Some parcels to the north and east are zoned residential. Some parcels to the north (where there is a fire station and a park) are zoned Civic Facility and Open Space; and parcels farther to the south are zoned CSMU.

#### 4.9.1.2 Regulatory Setting

##### Federal

The U.S. Department of Commerce's Economic Development Administration (EDA) issues grants to eligible distressed communities throughout the United States to foster job creation, collaboration, and regional innovation. The grants are awarded to help fulfill regional economic development strategies designed to accelerate innovation and entrepreneurship, advance regional competitiveness, create higher-skill, living-wage jobs, generate private investment, and fortify and grow industry clusters. Eligible applicants must be a State, a political subdivision of a State, district organization, Indian tribe, institution of higher education, or a non-profit acting in coordination with a political subdivision of a State. Applicants must also meet economic distress criteria, which may include an unemployment rate that is, for the most recent 24-month period from which data are available, at least 1 percent greater than the national average unemployment rate; a per capita income that is, for the most recent period from which data are available, 80 percent or less of the national average; or a "special need" (certain unemployment or economic adjustment problems), as determined by EDA.<sup>3</sup> Proposals must be based on a locally developed, comprehensive economic development strategy, and cost sharing or matching is required; generally, the amount of the EDA investment may not exceed 50 percent of the total cost of the project.

The City, with co-recipient, the Alameda County Flood Control District, was awarded an EDA grant (No. 07-01-05553) to construct a culvert for a portion of the Line M drainage channel. In exchange for the \$3,000,000 grant, the City was required to preserve lands for employment growth. A portion of the project site was included in that agreement. The City inquired with the EDA as to whether the project site could be removed from that obligation. The EDA provided feedback, stating that the acreage could be considered for residential development and removed from the obligation, provided the portion of the grant that could be attributed to the job growth within the project boundary would be repaid by the developer and subject to EDA issuing a formal approval, releasing the proposed acreage from the obligation. This would be required prior to the property being sold or subdivided.<sup>4</sup>

##### State

##### General Plan Law (California Government Code Section 65300)

State law (California Government Code Section 65300 et seq.) requires each California municipality to prepare a general plan. A general plan is defined as "a comprehensive, long-term general plan for the physical development of the county or City, and any land outside its boundaries, which in the

<sup>3</sup> U.S. Economic Development Administration. 2020. *Applying for EDA Investments, Eligibility Requirements, and Criteria*. Available: <https://www.eda.gov/archives/2016/how-to-apply/files/Eligibility-Requirements-and-Criteria.pdf>. Accessed: February 7, 2020.

<sup>4</sup> U.S. Department of Commerce, Economic Development Administration. 2020—personal communication with Antonio Acosta, City of Union City.

planning agency's judgment bears relation to its planning." State requirements call for general plans that "comprise an integrated, internally consistent and compatible statement of policies for the adopting agency." Although allowing considerable flexibility, State planning laws do establish some requirements for the issues that general plans must address. The California Government Code establishes both the required content of general plans and rules for their adoption and subsequent amendment.

Article 8 of the Government Code (Sections 65450–65457) allows local planning agencies to prepare specific plans for the systematic implementation of the general plan for all or part of the area covered by the general plan. A specific plan must include, either through text or diagrams, the following information:

1. The distribution, location, and extent of the uses of land, including open space, within the area covered by the plan.
2. The proposed distribution, location, and extent and intensity of major components of public and private transportation, sewage, water, drainage, solid waste disposal, energy, and other essential facilities proposed to be located within the area covered by the plan and needed to support the land uses described in the plan.
3. Standards and criteria by which development will proceed as well as standards for the conservation, development, and utilization of natural resources, where applicable.
4. A program of implementation measures, including regulations, programs, public works projects, and financing measures necessary to carry out paragraphs (1), (2), and (3).

The specific plan must be consistent with the general plan and include a statement of the relationship of the specific plan to the general plan.

### **Sustainable Communities and Climate Protection Act of 2008 (Chapter 728, Statutes of 2008)**

The Sustainable Communities and Climate Protection Act of 2008, otherwise known as Senate Bill (SB) 375, requires the integration of land use, housing, and transportation planning to achieve regional greenhouse gas (GHG) emission reductions, as adopted by the California Air Resources Board. SB 375 requires Metropolitan Planning Organizations (MPOs) to develop a Sustainable Communities Strategy (SCS)—a new element of the Regional Transportation Plan (RTP)—to plan for achieving GHG reduction targets. The SCS must demonstrate attainment of the regional GHG emissions reduction targets while accommodating the full projected population of the region.

## **Regional**

### **ABAG/MTC Plan Bay Area 2040**

The Metropolitan Transportation Commission (MTC), and Association of Bay Area Governments (ABAG) adopted Plan Bay Area 2040 in 2017. Plan Bay Area 2040 is the integrated land use/transportation plan and demographic/economic forecast for the nine-county San Francisco Bay Area region. The plan coordinates housing plans, open space conservation efforts, economic development strategies, and transportation investments.<sup>5</sup>

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<sup>5</sup> Metropolitan Transportation Commission and Association of Bay Area Governments. 2017. *Plan Bay Area 2040*. Available: <https://www.planbayarea.org/previous-plan/plan-bay-area-2040>. Accessed: February 28, 2020.

One of the main goals of Plan Bay Area 2040 is to reduce GHG emissions from cars and light-duty trucks through 2040 to meet State goals under SB 375. As described above, under SB 375, MPOs such as MTC must develop an SCS as part of the RTP. Plan Bay Area 2040 functions as both the SCS and the RTP for the region.

To reduce GHG emissions, Plan Bay Area 2040 promotes compact mixed-use infill development within walkable/bikeable neighborhoods that are close to public transit, jobs, schools, shopping, parks, recreation, and other amenities. Local jurisdictions voluntarily identified Priority Development Areas (PDAs) as appropriate locations for these types of neighborhoods. PDAs are eligible for capital infrastructure funds, planning grants, and technical assistance. The adopted Plan Bay Area 2040 estimates that approximately 80 percent of the region's future housing needs may be met within PDAs. The strategy of focusing growth in PDAs maximizes travel choices, reduces dependency on driving, takes advantage of existing infrastructure capacity, and reduces pressure to develop open space. In addition, Plan Bay Area 2040 identifies Transit Priority Areas, which are defined as areas within 0.5 mile of a major transit stop, such as an existing or planned rail station or bus routes with headways of 15 minutes or less during morning and evening peak periods. A portion of the project site is located in a PDA.

## **Local**

### **City of Union City 2040 General Plan**

The 2040 Union City General Plan update was adopted on December 10, 2019, updating and superseding the 2002 City General Plan. It is the City's long-range planning document that represents the community's vision for future development over the next 15 to 25 years. It contains eight elements, including Economic Development, Health and Quality of Life, Land Use, Community Design, Mobility, Safety, Public Facilities and Services, and Resource Conservation.

The Economic Development Element assesses the potential for various types of future economic activity in the City to set out the overall framework for economic growth and identify strategic actions for key opportunity sites throughout the City. The Health and Quality of Life element aims to support traditionally underrepresented and underserved populations living within the City, address potential environmental justice issues, build social capital, and support efforts that foster a culture of inclusion, all of which assist in improving the quality of life for all residents. The Land Use Element, discussed further in the next section, designates the general distribution and intensity of all uses of the land in the community. The Community Design Element provides goals and policies aimed at strengthening the City's identity by improving the quality of places and images throughout the City. The Mobility Element identifies the general location and extent of existing and proposed major transportation facilities, including major roadways, rail and transit, and airports. The Safety Element identifies and appraises noise problems; it also includes policies to protect the community from excessive noise and establishes policies and programs to protect the community from risks associated with seismic, geologic, flood, and wildfire hazards. The Public Facilities and Services Element contains goals, policies, and implementation programs that establish the framework for the provision of public facilities and services to meet the demand created by existing and future development in the City. The Resource Conservation element provides goals, policies, and implementation measures designed to address the following subjects: biological resources, water resources, historic resources, and open space preservation. Finally, one chapter of the General Plan provides goals and policies for specific areas of the City, such as the Greater Station District.

The Land Use Element contains a description of 19 different land use designations proposed for the City. The descriptions include allowed maximum density or intensity of development and specific guidance on the intended physical character of future development, including building placement on a lot, lot coverage, building frontage, streetscape character, and parking locations and access.

The City has a number of unique districts that serve as important commercial, employment, and residential areas. These districts are either key infill areas that provide distinct opportunities for redevelopment during the life of the General Plan or have important existing features that require special attention to preserve and protect. The project site is within the Greater Station District, the 293-acre area surrounding the Union City BART station, which is further divided into five subareas. The project site is within the Station East subarea.<sup>6</sup>

For this analysis, the General Plan was reviewed to identify land use policies applicable to the proposed project and identify any potential conflicts with applicable policies adopted for the purpose of avoiding or mitigating an environmental effect. The project has been designed for compatibility with applicable City requirements. The project design of individual planning areas would be required to undergo and be approved through the City's Site Development Review process. Therefore, aspects of the project that will be reviewed through that process that are specific to design, measurements, setbacks, circulation layout, and architecture are not included here. Citywide goals and generally related land use policies applicable to the proposed project are listed below.

### ***Land Use (Chapter 3)***

- Goal LU-1: Strategically support infill development and redevelopment to transform Union City into a distinctive community with a dynamic, transit-oriented City center; attractive shopping and entertainment areas; and thriving and innovative work places.
  - Policy LU 1.2: Promote Infill and Enhance Neighborhoods. The City shall promote infill development and redevelopment of underutilized parcels while maintaining or enhancing the positive qualities of the surrounding neighborhoods.
  - Policy LU-1.3: Strategic Infill Areas. The City shall encourage redevelopment and infill in strategic areas such as the Historic Alvarado District, along Union City Boulevard and Mission Boulevard, and at Union Landing and the Greater Station District.
  - Policy LU-1.6: Integrate New Development into the Community. The City shall require new large-scale development projects to be integrated into the fabric of the existing community rather than allowing these projects to be self-contained, walled off, or physically separated/segregated from surrounding uses. To the extent feasible, circulation networks and open spaces in such developments should be linked to existing streets and open spaces to improve connectivity between neighborhoods.
- Goal LU-2: Provide a land use framework that promotes transit-oriented development and walkable communities and reduces reliance on cars.
  - Policy LU-2.4: Land Use that Maximizes Transit Use. The City shall encourage new land uses and project designs to minimize automobile dependence and maximize transit usage, walking, and bicycling.

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<sup>6</sup> City of Union City. 2019. *City of Union City 2040 General Plan Update*.

- Policy LU-2.5 Mixed-use and Higher-Density Development Around Transportation Nodes. The City shall support mixed-use development, pedestrian-friendly environments, and higher density around the major transportation nodes and corridors.
- Goal LU-3: Encourage development that integrates a mix of commercial, office, and/or residential uses in appropriate areas, enabling residents to live close to businesses and services.
  - Policy LU-3.2: Mixed-use Objectives. The City shall require mixed-use projects to comply with the following objectives: a blend of uses that are physically and functionally integrated through site layout, architectural design, and landscaping to create a synergy between different uses and a unique sense of place; compact development that reduces reliance on automobiles and promotes transit, walking, and biking; pedestrian-oriented design with active uses built up to wide and generous sidewalks; and a comfortable public realm that encourages community members to gather and socialize.
  - Policy LU-5.2: High-Quality Residential Development. The City shall ensure that residential developments are of high architectural quality, provide high-quality amenities, and are designed to minimize exposure to nuisances.
  - Policy LU-5.3: Require Street Trees. The City shall require the planting of street trees in all new residential developments to enhance the quality of life and character of neighborhoods.
  - Policy LU-5.4: Open Space Amenities. The City shall require that open space be provided in new residential developments, which is located on-site, accessible, and of sufficient size to be usable by residents.
  - Policy LU-5.6: Crime Prevention through Environmental Design in Residential Neighborhoods. The City shall promote crime prevention through neighborhood and residential design, which could include design features such as front porches, large front windows, and video doorbells.
  - Policy LU-5.7: Safe Siting of Residences. Whenever possible and appropriate, the City shall avoid backing residences onto trails or recreational facilities in order to deter crime.
- Goal SA-1: To continue to transform the Greater Station District into a dynamic, transit-oriented district with a diversity of uses that create a vibrant atmosphere where people live, work, and socialize.
  - Policy SA-1.2: Transit-Oriented Design of Greater Station District. The City shall require that development within the Greater Station District use best practices for transit-oriented development, including transit-supportive densities, pedestrian-friendly designs with wide sidewalks and lighting, and street and circulation designs that emphasize walking and bicycling and access to transit facilities.
  - Policy SA-1.3: Maximize Transit Use in Greater Station District. The Greater Station District shall be planned and designed to maximize transit use and reduce the need for area residents to use private automobiles for daily work, shopping, and service needs.
  - Policy SA-1.5: Preserve View Corridors. The City shall continue to use the Pedestrian Promenade and the existing block and street configuration established in the Core Station District to preserve view corridors through Station East to the Hillside Area and Masonic Homes, to the extent feasible.

- Policy SA-1.10: Diverse Retail Uses in Greater Station District. The City shall support a balance of local and larger market area retail uses to increase the vitality and economic viability of the Greater Station District, while ensuring new residents have the choice to meet their daily shopping needs within the district.
- Policy SA-1.13: Appropriate Integration Between Adjoining Uses. Where appropriate, the City should ensure that new development is integrated with adjoining uses by creating connections and minimizing the separation that results from roadways, rail lines, and flood control channels in the area. However, there should be distinct visual separation and noise buffering between residential and existing industrial uses as well as future flex industrial uses. Truck circulation should also be separated from residential circulation.
- Goal SA-4: To transform the Station East area into a vibrant 21<sup>st</sup>-century employment district that is a center of prosperity and innovation, focused on providing a quality experience for those who live and work in Union City.
  - Policy SA-4.2: Target Land Use Mix. Station East shall be developed primarily as an employment center, with the following land use targets: 65 percent of the area dedicated to employment uses (e.g., office, R&D, flex industrial), 15 percent commercial/retail, and a maximum 20 percent high-density residential and open space. Mixed-use residential development may be considered for the areas identified for commercial/retail uses provided the development is designed around the retail component, provides for a variety of commercial uses, and meets or exceeds required parking demand.
  - Policy SA-4.6: Pedestrian-Oriented Retail Center at Decoto Road and 7<sup>th</sup> Street. The City shall promote the development of the site at the corner of Decoto Road and 7<sup>th</sup> Street as a vibrant pedestrian-oriented retail center that provides adequate space for a grocery store anchor. Consistent with Policy SA-4.2, mixed-use residential projects may be considered, provided the emphasis remains on retail development.
  - Policy SA-4.7: Extend Pedestrian Promenade and View Corridor. Development of the Station East area shall include an extension of the Pedestrian Promenade and view corridor from the Core Station District, across the existing railroad tracks and PG&E easement, to 7<sup>th</sup> Street. The Pedestrian Promenade shall include buildings with well-designed and articulated facades and active ground-floor uses.
  - Policy SA-4.8: Emphasize Pedestrian and Bicycle Connections. The Station East area shall be designed as a walkable district with an active streetscape that emphasizes pedestrian and bicycle connections to the Core Station District and surrounding neighborhoods.
  - Policy SA-4.13: Street-Oriented Development. The City shall require new development within the Station East area to be oriented to the street and actively engage and complement the public realm. Parking should be located in parking garages or behind buildings and screened from view to the extent feasible.
  - Policy SA-4.16: Minimize Conflicts between Residential and Industrial Uses. The City shall require new residential uses be sited and designed to minimize potential conflicts with existing industrial uses and future employment/business uses, including the use of adequate setbacks, buffers (e.g., streets, landscaping, open space), screening, and other site planning and building design methods that minimize potential conflicts.

- Policy SA-4.23: Parkland and Public Spaces. New residential development within the Station East area shall contribute its fair share toward development of parkland. The City shall consider allowing plazas, civic spaces, and other gathering spaces that contribute to the public realm as a contribution toward meeting parkland requirements. Recreational pathways may also be considered.

### **Decoto Industrial Park Study Area (DIPSA) Specific Plan**

The project site is within the study area for Decoto Industrial Park and subject to the goals and policies of the City's 2006 (revised) Decoto Industrial Park Study Area (DIPSA) Specific Plan,<sup>7</sup> which is part of the General Plan and was originally adopted in August 1994 by City Council Resolution No. 8386-94. The purpose of the DIPSA Specific Plan is to promote the redevelopment of an area of the City that historically has been occupied by aging industrial uses with a mix of office, light industrial, retail, and residential uses. The DIPSA Specific Plan was most recently amended on July 25, 2006, to reflect the then-updated City General Plan and reflect the cleanup of several hundred acres of contaminated lands and residential development. It is currently being updated again (as the Station District Specific Plan) to be consistent with the future growth and development of the area and remain consistent with the City's General Plan.

The DIPSA Specific Plan generally pertains to the areas located between State Route 238, Decoto Road, Alvarado-Niles Road, and the Fremont-Union City limits. The plan area boundaries also incorporate the Gateway Site, located just southwest of Alvarado-Niles Road, the Intermodal Station that includes the BART Station, and the planned Quarry Lakes Parkway. For planning purposes, the DIPSA is divided into seven subareas; the proposed project is within Subarea 3 (known as Station East in Station District Specific Plan), which is the largest of the DIPSA subareas, covering approximately 90 acres. It is defined by the UPRR railroad tracks, Decoto Road, 7th Street, and Gregory Way. The DIPSA Specific Plan identifies the existing land uses of the area as being mostly industrial, with some vacant parcels, historic agricultural uses, and a PG&E substation. The DIPSA Specific Plan states that the objectives for Subarea 3 are "to allow the majority of the existing uses to remain and to also permit controlled expansion of uses and the establishment of new uses that meet the overall objectives of" the plan. As part of the 2006 update, Subarea 3 was further refined to include land use designations of light industrial, R&D, and the City's corporation yard. The project scope includes an update to the existing DIPSA Specific Plan for consistency with the adopted General Plan, which renames the former Decoto Industrial Park (Subarea 3c) to "Station East" and added additional uses including commercial, housing, and mixed-use development that apply to the project site. Updates are also proposed to other relevant sections of the Specific Plan to accommodate the new uses and development types. The City is also working on a comprehensive update to the DIPSA Specific Plan, referred to as the Station District Specific Plan.

There are several goals of the DIPSA Specific Plan (2006) that would apply to the project. Relevant goals under the topics of "land use," "design guidelines," and "enhance the retail/business opportunities and cultural vitality of the community center" are as follows:

- Goal 1. Encourage and support the timely redevelopment of the DIPSA as an area of high-quality residential, commercial, office, R&D, light industrial, and service commercial industries and uses, with appropriate associated uses, such as transportation links, parks, schools, etc.

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<sup>7</sup> City of Union City. 1994. *Decoto Industrial Park Study Area Specific Plan*. Amended 2006.

- Goal 2. Encourage a variety of densities and types of residential uses in the area to help achieve City housing goals, ensure proper relationships to adjoining lands, and support existing and future commercial uses within and near the DIPSA.
- Goal 3. Provide, or ensure the provision of, affordable housing in concert with the goals, policies, and standards of the adopted Union City Housing Element and redevelopment area requirements.
- Goal 4. Guide all new development in the DIPSA in such a way as to ensure harmony with existing and potential uses, both within the DIPSA and on the periphery of the area.
- Goal 5. Balance land uses so as to achieve high-quality life for the community and minimize adverse environmental and economic impacts.
- Goal 6. Support the continued development and upgrading of the station district area as the "downtown" of the City.
- Goal 8. Establish landscape and other buffer zones between potentially incompatible uses.
- Goal 9. The design of all new development shall ensure high-quality appearance and harmony between existing and new uses while avoiding monotony in style, height, mass, etc.
- Goal 10. Create new residential neighborhoods with unique qualities and characteristics that make them distinctly identifiable from other existing (both old and new) neighborhoods in areas adjacent to the DIPSA.
- Goal 11. Allow only new commercial, office, and similar development that is of high-quality design and that includes uses that will not adversely affect other uses in the DIPSA.
- Goal 12. Encourage site design that is sensitive to residents' and businesses' needs for privacy, security, and buffering from other uses and activities
- Goal 20. Encourage commercial uses that will serve the neighborhoods of the planning area, immediately adjacent areas, and the community at large.
- Goal 21. Attract local-serving businesses to the area to support and balance residential uses in the DIPSA.
- Goal 22. Encourage office park, R&D, and light industrial/service commercial type uses that can benefit from proximity to BART and new transportation links resulting from improvements to Mission Boulevard and construction of the new LRI.
- Goal 23. Retain existing and accommodate new light industrial uses that are compatible with City objectives for safety, environmental quality, visual quality, revenue enhancement, and the market conditions for new land uses.
- Goal 24. Increase and diversify local employment opportunities.

### **Union City Zoning Ordinance**

Zoning is the primary tool used to implement the policies of the General Plan. The City's Zoning Ordinance (Chapter 18.106 of the Union City Municipal Code) divides the community into 18 zoning districts and specifies the uses that are permitted, conditionally permitted, and, in some instances, uses that are specifically prohibited within each district. Each zoning district has developed standards that are designed to protect and promote the health, safety, and general welfare of the community. Within a typical district, there are regulations related to land use, lot size, coverage, building heights, parking, and landscaping.



### **Site Development Review**

Site development review approval is required for construction of multi-family developments. The City reviews the design of new projects through the Site Development Review process (codified in Chapter 18.76 of the City Zoning Ordinance). In order to grant Site Development Review approval, the City Council must make specific findings, that include:

1. Consistency with the City General Plan and any applicable specific plans;
2. Consistency with the purposes of Title 18 (i.e., City Zoning Ordinance) and the requirements of the district in which the site is located; and
3. Consistency with the purpose of Site Development Review, as outlined in Section 18.76.010 of the Union City Municipal Code which states “Site development review is intended to promote orderly, attractive and harmonious development and the stability of land values and investments and the general welfare, by preventing the establishment of uses or the erection or maintenance of structures having unsightly, undesirable or obnoxious qualities which are not properly related to their sites, surroundings and traffic circulation in the vicinity, or which would not meet the specific intent clauses or performance standard requirement of the zoning title.”

Site Development Review is limited to the physical aspects of the development and does not grant the City discretion over the use itself. The intent is to ensure proposed development is consistent with the General Plan and Municipal Code requirements including the Zoning Ordinance (Title 18). Site Development Review applications are decided on by the City Council, with the Planning Commission functioning as a recommending body. The City does not have a separate design or architectural review committee that would place additional conditions on the projects beyond those of the standard development review processes.<sup>8</sup>

## **4.9.2 Environmental Impacts**

This section describes the impact analysis related to land use and planning for the proposed project. It describes the methods used to determine the impacts of the project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion, where necessary and appropriate.

### **4.9.2.1 Thresholds of Significance**

State CEQA Guidelines Appendix G (14 California Code of Regulations [CCR] 15000 et seq.) identifies significance criteria to be considered for determining whether a project could have significant impacts on existing land uses. Would the project:

- Physically divide an established community; or
- Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

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<sup>8</sup> City of Union City. 2015. *Union City Housing Element*. January 27. Available: [http://www.uc2040.com/wp-content/uploads/2014/06/UCHEU\\_Certified\\_2015-02-19.pdf](http://www.uc2040.com/wp-content/uploads/2014/06/UCHEU_Certified_2015-02-19.pdf). Accessed: March 6, 2020.

### 4.9.2.2 Methods for Analysis

As described in Section 4, *Environmental Impact Analysis*, subsequent to the drafting of this EIR, the applicant indicated that the residential units associated with proposed project would increase by 10, from 964 to 974 units. As described therein, the analysis presented throughout this EIR adequately accounts for the potential environmental impacts of the 974 new residential units.

CEQA requires an environmental impact report (EIR) to consider whether a proposed project would conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental impact. This environmental determination differs from the larger policy determination of whether a proposed project would be consistent with a jurisdiction's general plan. The former determination, which is intended for consideration in a CEQA document, is based on, and limited to, a review and analysis of environmental effects. The latter determination, by comparison, is made by the decision-making body of the jurisdiction and based on the jurisdiction's broad discretion to assess whether a proposed project would conform to the policies and objectives of its general plan/specific plan as a whole. In addition, the broader general plan consistency determination takes into account all evidence in the record concerning the project's characteristics, its desirability, as well as its economic, social, and other non-environmental effects.

Conflicts of a project with land use policies do not, in and of themselves, constitute significant environmental impacts. Policy conflicts are considered environmental impacts only when the policies themselves were adopted for the purpose of avoiding or mitigating an environmental effect. Such conflicts constitute significant environmental impacts only when the resulting direct environmental effects are significant.

### 4.9.2.3 Impacts and Mitigation Measures

#### **Impact LU-1: The project would not physically divide an established community. (Less than Significant)**

The physical division of an established community typically refers to the construction of a linear feature, such as an interstate highway or railroad tracks, or removal of a means of access, such as a local bridge, that would affect mobility within an existing community or between a community and outlying area. However, physical division could also occur if large buildings were designed in such a way so as to create "walls" or oriented in such a way that would obstruct movement or circulation on commonly used routes. The proposed project does not involve the construction of a linear feature or other barrier and would not remove any means of access. Furthermore, the proposed project includes features specifically aimed at enhancing connectivity within the project site and improving linkages with surrounding areas, including the BART station area and nearby neighborhoods. These features include multi-modal circulation improvements, as well as design strategies and land use inclusions, such as parks, open spaces, and plazas that welcome community use and encourage social connections between people and neighborhoods. These intentions are demonstrated in the project objectives (listed in Chapter 3, *Project Description*), which support the idea of creating physical connections within the project site and with the surrounding established community.

Elements included in the proposed project that would improve mobility and physical connectivity within the project site and surrounding areas include those related to roadways, bike routes, paths, and sidewalks. As shown in Figure 3-6 in Chapter 3, *Project Description*, the project site would be accessed primarily from Decoto Road and 7<sup>th</sup> Street. In addition, the project site would also be accessible from Bradford Way and Zwissig Way, which are adjacent to 7<sup>th</sup> Street. Five new internal roads are proposed as part of the project to improve pedestrian, bicycle, and vehicle circulation and access throughout the project site and in surrounding areas. Bradford Way would be extended, providing access to the entire westernmost portion of the project site. In addition, two new roads, K Street and L Street, would be accessible from 7<sup>th</sup> Street; the new roads would run east–west through the project site. A smaller new road, M Street, would be located in the easternmost portion of the project site, adjacent to Bradford Way and improve north–south access and circulation. Two other new roads, 8<sup>th</sup> Street and 9<sup>th</sup> Street, would be the main roads through the project site. These would bisect the project site in the north–south direction, ultimately connecting Decoto Road to Zwissig Way and Bradford Way. A new traffic signal would be incorporated at the 9<sup>th</sup> Street and Decoto Road intersection. The intersection would include left-turn lanes on Decoto Road and all movements would be allowed. The 8<sup>th</sup> Street and Decoto Road intersection would be controlled by a stop-sign on the 8<sup>th</sup> Street approach and only right-turns would be allowed.

All new streets within the project area would provide one automobile lane in each direction with on-street parallel parking and sidewalks on both sides of the street. Buffered bike lanes would be provided along 9<sup>th</sup> Street and Bradford Way; although the eastbound bike lane on Bradford Way would be without a buffer in the interim conditions after the completion of the project but before the redevelopment of the parcels along the south frontage of the street. The project would also provide buffered bike lanes on both sides of 7<sup>th</sup> Street between Decoto Road and Bradford Way within the existing right-of-way by eliminating the on-street parking on one side of the street between K Street and Bradford Way and eliminating on-street parking on both sides of the street between Decoto Road and K Street. The 7<sup>th</sup> Street/Bradford Way intersection would become a protected intersection to facilitate bicycle travel between the buffered bike lanes on Bradford Way and 7<sup>th</sup> Street north of Bradford Way, and the two-way bike path on 7<sup>th</sup> Street south of Bradford Way. A future two-way bike path would ultimately be provided on the east side of 7<sup>th</sup> Street south of Bradford Way by eliminating on-street parking on one side of the street; however, this is not part of the project. The future two-way bike path on 7<sup>th</sup> Street would continue south and connect with the planned path adjacent to the future Quarry Lakes Parkway.

Elements included in the proposed project that would improve pedestrian and bicycle connectivity within the project site and to the existing community are elements that provide walkability and access and encourage wider communal use of the project’s pathways, routes, and open spaces as connective routes. One linear paseo (Paseo C) would extend through the entire width of the project site in the east–west direction. Three community parks and other recreational amenities would be located throughout the project site. In addition, urban plazas would be located near the proposed commercial uses in PA 1. The proposed project would promote infill development in an existing urbanized area. The project’s objectives, layout, and design were selected to promote compatibility with existing uses and regional goals.

The proposed project would not introduce any physical barriers to the project site and would generally improve connectivity for all users, including vehicles, bicyclists, and pedestrians on the project site and throughout the existing community and City. Therefore, the proposed project would not physically divide an established community; the impact would be ***less than significant***.

**Impact LU-2: The project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. (Less than Significant)**

**Consistency with General Plan and DIPSA Specific Plan Policy**

The project is an infill project involving redevelopment of an approximately 26.5-acre site. The proposed project would be serviced by the existing forms of public transportation in the vicinity of the project site. This includes access to two AC Transit bus stops at Decoto Road and 7<sup>th</sup> Street and at Decoto Road and Depot Road, UC Transit bus stops at 7<sup>th</sup> Street and Daggett Avenue and 7<sup>th</sup> Street and Bradford Way, as well as BART, the Dumbarton Express, and UC Transit. The project is reflective of the development goals for the City and the Greater Station District and consistent with General Plan land use Goals LU-1, LU-2, LU-3, SA-1 and SA-4. The proposed project would be designed for compatibility with nearby neighborhoods and the community, including connections to the existing station area and public transit facilities. It includes several pedestrian, bicycle, and vehicular improvements to connect to these areas. These elements of the project are consistent with General Plan Policies LU-1.2, LU-1.6, SA-1.13, SA-4.8, and SA-4.16; DIPSA Specific Plan Goals 9, 10, and 11; and community development policies in the Community Development Element related to new development integration with existing communities and neighboring uses.

The project is considered transit-oriented development. It would enable residents to live close to businesses, services, and transit, which promotes the use of transit, walking, and bicycling over personal car use, and represents consistency with General Plan Goals LU-2, LU-3, SA-1, and SA-4 and Policies LU-2.4, LU-2.5, LU-3, LU-3.2, SA-1.2, SA-1.3, SA-1.10, SA-4.2, SA-4.7, and SA-4.8 and DIPSA Specific Plan Goals 20, 21, and 22. This would also be consistent with various goals and policies from the Community Design Element, Mobility Element, and the Resource Conservation Element.

The project's design focuses on high-quality buildings and landscapes. The proposed project would include approximately 735 trees when accounting for the 68 existing trees to be removed (including 47 protected trees).<sup>9</sup> The description of the project's open spaces is based on the conceptual open space plan shown in Figure 3-7 in Chapter 3. The proposed project would include a total of approximately 9.83 acres of open space, consisting of 1.83 acres of public parks and a paseo, 1.95 acres of private landscaping, 2.25 acres of semi-private and private open space, 0.96 acres of streetscape landscaping, 1.42 acres of bio-retention areas, and 1.42 acre of retail plazas and promenade. These project features are consistent with General Plan Policies LU-3.2, LU-5.2, SA-1.2, SA-1.5, SA-4.7, and SA-4.13 and DIPSA Specific Plan Goals 9 and 11 regarding high-quality design and other architectural and design goals, such as building orientation, compatibility with neighboring uses, "eyes on the street," and view preservation (refer to Chapter 3, *Project Description*). The project would be consistent with General Plan Policies LU-3.2, LU-5.3, LU-5.4, and SA-4.23 regarding trees, landscaping, open space, parkland, and community gathering space. In addition, this would also make the project consistent with various goals and policies from the Community Design Element and the Health and Quality of Life Element.

The project design is compatible with the standards for development related to privacy, safety, and security. These include principles of safety through environmental design, roadway and sidewalk design safety standards, compatible noise and vibration standards, and emergency

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<sup>9</sup> Urban Arena. 2020. *Conceptual Tree Plan*. January 30.

access and public services requirements (see Sections 4.7, *Hazards and Hazardous Materials*; 4.10, *Noise and Vibration*; 4.12, *Public Services and Recreation*; and 4.14, *Transportation*) as well as specific building design, siting, buffering, density, and setback requirements (see Chapter 3, *Project Description*), consistent with General Plan Policies LU-5.6, LU-5.7, SA-1.13, SA-4.2, SA-4.3, and SA-4.16 and DIPSAs Specific Plan Goals 8 and 12. This would also be consistent with various goals and policies from the Community Design Element, Mobility Element, and the Public Services and Facilities Element.

Planning Area (PA) 1 is a proposed 3.4-acre mixed-use retail and residential PA. This PA would be in the northeast corner of the project site. PA 1 would provide up to 243 apartment units in a five-story building. PA 1 would also include 4,860 sf of retail space, two urban plazas, and an 18,180-sf market. The proposed project would be compatible with General Plan Policy SA-4.6 to promote a vibrant pedestrian-oriented retail center at Decoto Road and 7<sup>th</sup> Street that provides adequate space for a grocery store anchor. The project would be consistent with General Plan Goal SA-4 and Policy 4.2, which state that Station East shall be developed primarily as an employment center. Although the proposed project (which is in the Station East subarea) does not include major employment center uses, it does include uses such as residential and supporting uses and major transit connections that would support the creation of an employment center in other parts of the Station East subarea. Therefore, the project would be consistent with General Plan Goal SA-4 and Policy 4.2.

The project is located on a site designated for SEMU in the General Plan. The SEMU land use designation allows for a range of uses that include light industrial, R&D, office, retail and entertainment, hotel, residential, and public plaza uses. The project is generally consistent with these uses but would seek a General Plan amendment to update the land use targets for the Station East area to decrease the amount of acreage dedicated to commercial uses, increase the amount of acreage dedicated to residential uses, and reduce the minimum density to 25 units per acre, provided a certain average density is maintained. This proposed amendment would be consistent with the City's desire to increase overall housing stock in the City and promote transit-oriented development, especially in the Station East area, as shown in General Plan Goals LU-2, LU-3, SA-1, SA-4; Policies LU-2.4, LU-2.5, LU-3.2, SA-1.2, SA-1.3, SA-1.10, SA-1.13, SA-4.2, and SA-4.6; and DIPSAs Specific Plan Goals 1, 2, 6, 21, and 22. This would also be consistent with various goals and policies from the Resource Conservation Element.

Although the project is generally consistent with the individual goals of the DIPSAs Specific Plan, it is not consistent with the [land use designations for specific parcels](#) in the DIPSAs Specific Plan. Specifically, although the DIPSAs Specific Plan is supportive of the addition of residential uses in some of the subareas, subarea 3 (where the project site is located) is intended to be used for industrial or other flex uses (e.g., office, research and development, service/distribution uses) within the DIPSAs Specific Plan, as opposed to housing. As part of the project approval, the DIPSAs Specific Plan will be updated to bring it into conformity with the 2040 General Plan. This entails updating the DIPSAs Specific Plan to reflect new land uses, circulation patterns, design attributes, etc., in line with the 2040 General Plan and, ultimately, the project. Therefore, the proposed project would be consistent with the DIPSAs Specific Plan. would be consistent with the intended use of the site from the DIPSAs Specific Plan.

In summary, the project would be consistent with General Plan and DIPSAs Specific Plan goals and policies that are intended to avoid or mitigate adverse impacts on the environment, and, therefore, the impact would be ***less than significant***.

## Consistency with Zoning

To implement the project, the applicant proposes the creation of a new zoning district for consistency with the General Plan designation of SEMU and a zoning map amendment to apply this new zoning district to the project site. Once approved, the project would comply, subject to applicable conditions of approval, with all requirements of the new zoning district and map, including allowable use, density, and height and bulk requirements. The project would be required to undergo Site Development Review, pursuant to Chapter 18.76 of the City's Zoning Ordinance, which is required for all new major developments. The project would comply the Affordable Housing Ordinance through alternative means, as allowed by Section 18.33.060.E of the Municipal Code, by providing all rental affordable units in lieu of a mix of rental and ownership affordable units. The project would include 122 affordable housing units and a manager unit in PA 3 of the project plus 24 affordable units in PA 1, for a total of 146 affordable units. Therefore, the project would be consistent with applicable City's zoning requirements and regulations, which are intended to avoid or mitigate adverse impacts on the environment. Therefore, the impact would be ***less than significant***.

## Cumulative Impacts

**Impact C-LU-1: The project, in combination with past, present, and reasonably foreseeable future projects, would not result in a significant cumulative impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. (Less than Significant)**

The cumulative geographic context for land use and planning is the City. The approach to cumulative impacts is described in Section 4, *Environmental Impact Analysis*.

Similar to the project, cumulative projects could result in a change in uses and/or an intensification of development. The compatibility of new development with adjacent land uses and the general character of the surrounding areas are considered under the City's Site Development Review process and environmental review process for all proposed projects. Through appropriate site design and review of these development projects, land use compatibility impacts would be avoided. Any future projects in the City would be required, like the project, to adhere to policies of the General Plan and the City's Zoning Ordinance and undergo the City's Site Development Review process prior to approval. For these reasons, the proposed project, in combination with other past, present, and reasonably foreseeable future projects, would not result in a significant cumulative land use and planning impact. The cumulative impact would be ***less than significant***.

## 4.10 Noise

This section describes the environmental and regulatory setting for noise and vibration. It also describes impacts related to noise and vibration that would result from implementation of the project and mitigation for significant impacts where feasible and appropriate.

In response to the Notice of Preparation (NOP), comments were received that identified concerns regarding noise and vibration impacts from Union Pacific Railroad (UPRR) rail service. The comments expressed concern that additional pedestrian and vehicle traffic may result in additional usage of train horns by railroad employees and that the public be made aware of the noise and vibration levels associated with rail service. The comments are addressed in the environmental analysis discussion in this section.

### 4.10.1 Existing Conditions

#### 4.10.1.1 Environmental Setting

##### Noise Background

Noise is commonly defined as unwanted sound that annoys or disturbs people and potentially causes an adverse psychological or physiological effect on human health. Because noise is an environmental pollutant that can interfere with human activities, evaluation of noise is necessary when considering the environmental impacts of a project.

Sound is mechanical energy (vibration) transmitted by pressure waves over a medium such as air or water, and noise is generally defined as unwanted sound that annoys or disturbs people. Sound is characterized by various parameters that include the rate of oscillation of sound waves (frequency), the speed of propagation, and the pressure level or energy content (amplitude). In particular, the sound pressure level is the most common descriptor used to characterize the loudness of an ambient (existing) sound level. Although the decibel (dB) scale, a logarithmic scale, is used to quantify sound intensity, it does not accurately describe how sound intensity is perceived by human hearing. The human ear is not equally sensitive to all frequencies in the entire spectrum, so noise measurements are weighted more heavily for frequencies to which humans are sensitive in a process called “A-weighting,” written as “dBA” and referred to as “A-weighted decibels.” Table 4.10-1 summarizes typical A-weighted sound levels for different noise sources.

In general, human sound perception is such that a change in sound level of 1 dB cannot typically be perceived by the human ear, a change of 3 dB is just noticeable, a change of 5 dB is clearly noticeable, and a change of 10 dB is perceived as doubling or halving the sound level.

Different types of measurements are used to characterize the time-varying nature of sound. These measurements include the equivalent sound level ( $L_{eq}$ ), the minimum and maximum sound levels ( $L_{min}$  and  $L_{max}$ ), percentile-exceeded sound levels (such as  $L_{10}$ ,  $L_{20}$ ), the day-night sound level ( $L_{dn}$ ), and the community noise equivalent level (CNEL). Sensitivity to noise increases during the evening and at night because excessive noise interferes with the ability to sleep, and  $L_{dn}$  and CNEL values take this into consideration by averaging cumulative noise exposure over a 24-hour period.  $L_{dn}$  and CNEL values differ by less than 1 dB. As a matter of practice,  $L_{dn}$  and CNEL values are considered to be equivalent and are treated as such in this assessment.

**Table 4.10-1. Typical A-Weighted Sound Levels**

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	110	Rock band
Jet flyover at 1,000 feet		
	100	
Gas lawnmower at 3 feet		
	90	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	80	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawnmower, 100 feet	70	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	60	
		Large business office
Quiet urban daytime	50	Dishwasher in next room
Quiet urban nighttime	40	Theater, large conference room (background)
Quiet suburban nighttime		
	30	Library
Quiet rural nighttime		Bedroom at night, concert hall (background)
	20	
		Broadcast/recording studio
	10	
	0	

Source: California Department of Transportation. 2013a. *Technical Noise Supplement to the Traffic Noise Analysis Protocol*. September. Available: [https://www.sandiegocounty.gov/content/dam/sdc/pds/ceqa/Soitec-Documents/Final-EIR-Files/references/rtcref/ch2.6/2014-12-19\\_Caltrans\\_TrafficNoiseAnalysisProtocol\\_Part1.pdf](https://www.sandiegocounty.gov/content/dam/sdc/pds/ceqa/Soitec-Documents/Final-EIR-Files/references/rtcref/ch2.6/2014-12-19_Caltrans_TrafficNoiseAnalysisProtocol_Part1.pdf). Accessed: February 28, 2020

For a point source such as a stationary compressor or construction equipment, sound attenuates based on geometry at a rate of 6 dB per doubling of distance. For a line source such as free-flowing traffic on a freeway, sound attenuates at a rate of 3 dB per doubling of distance.<sup>1</sup> Atmospheric conditions including wind, temperature gradients, and humidity can change how sound propagates over distance and can affect the level of sound received at a given location. The degree to which the ground surface absorbs acoustical energy also affects sound propagation. Sound that travels over an acoustically absorptive surface such as grass attenuates at a greater rate than sound that travels over a hard surface such as pavement. The increased attenuation is typically in the range of 1 to 2 dB per doubling of distance. Barriers such as buildings and topography that block the line of sight between a source and receiver also increase the attenuation of sound over distance.

<sup>1</sup> Federal Transit Administration. 2006. *Transit Noise and Vibration Impact Assessment*. FTA-VA-90-1003-06. Office of Planning and Environment. Available: [https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA\\_Noise\\_and\\_Vibration\\_Manual.pdf](https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Noise_and_Vibration_Manual.pdf). Accessed: February 28, 2020.



### 4.10.1.2 Vibration Background

Operation of heavy construction equipment, particularly the types used for pile driving and pavement breaking, create seismic waves that radiate along the surface of the earth and downward into the earth. These surface waves can be felt as ground vibration. Vibration from operation of this equipment can result in effects ranging from annoyance of people to damage of structures. Varying geology and distance will result in different vibration levels containing different frequencies and displacements. In all cases, vibration amplitudes will decrease with increasing distance.

Perceptible ground-borne vibration is generally limited to areas within a few hundred feet of construction activities. As seismic waves travel outward from a vibration source, they excite the particles of rock and soil through which they pass and cause them to oscillate. The actual distance that these particles move is usually only a few ten-thousandths to a few thousandths of an inch. The rate or velocity (in inches per second) at which these particles move is the commonly accepted descriptor of the vibration amplitude, referred to as the peak particle velocity (PPV).

Table 4.10-2 summarizes typical vibration levels generated by construction equipment.

**Table 4.10-2. Vibration Source Levels for Demolition and Construction Equipment**

Equipment	PPV at 25 Feet	PPV at 50 Feet	PPV at 75 Feet	PPV at 100 Feet	PPV at 175 Feet
Pile driver (impact)	1.518	0.5367	0.2921	0.1875	0.0820
Pile driver (sonic/vibratory)	0.734	0.2595	0.1413	0.0918	0.0396
Hoe ram	0.089	0.0315	0.0171	0.0111	0.0048
Large bulldozer	0.089	0.0315	0.0171	0.0111	0.0048
Loaded trucks	0.076	0.0269	0.0146	0.0095	0.0041
Jackhammer	0.035	0.0124	0.0067	0.0044	0.0019
Small bulldozer	0.003	0.0011	0.0006	0.0004	0.0002

Source: Federal Transit Administration. 2006. *Transit Noise and Vibration Impact Assessment*. FTA-VA-90-1003-06. Office of Planning and Environment. Available: [https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA\\_Noise\\_and\\_Vibration\\_Manual.pdf](https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Noise_and_Vibration_Manual.pdf). Accessed: February 28, 2020.

Vibration amplitude attenuates over distance and is a complex function of how energy is imparted into the ground and the soil conditions through which the vibration is traveling. The following equation can be used to estimate the vibration level at a given distance for typical soil conditions.<sup>2</sup> PPV<sub>ref</sub> is the reference PPV from Table 4.10-2.

$$PPV = PPV_{ref} \times (25/Distance)^{1.5}$$

<sup>2</sup> Federal Transit Administration. 2006. *Transit Noise and Vibration Impact Assessment*. FTA-VA-90-1003-06. Office of Planning and Environment. Available: [https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA\\_Noise\\_and\\_Vibration\\_Manual.pdf](https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Noise_and_Vibration_Manual.pdf). Accessed: February 28, 2020.

Table 4.10-3 and Table 4.10-4 summarize guidelines developed by the California Department of Transportation (Caltrans) for damage and annoyance potential from transient and continuous vibration that is usually associated with construction activity. Equipment or activities typical of continuous vibration include excavation equipment, static-compaction equipment, tracked vehicles, traffic on a highway, vibratory pile drivers, pile-extraction equipment, and vibratory-compaction equipment. Equipment or activities typical of single-impact (transient) or low-rate repeated impact vibration include impact pile drivers, blasting, drop balls, “pogo stick” compactors, and crack-and-seat equipment.<sup>3</sup>

**Table 4.10-3. Guideline Vibration Damage Potential Threshold Criteria**

<b>Structure and Condition</b>	<b>Maximum PPV (in/sec)</b>	
	<b>Transient Sources</b>	<b>Continuous/Frequent Intermittent Sources</b>
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

Notes: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory-compaction equipment.

Source: Federal Transit Administration. 2006. *Transit Noise and Vibration Impact Assessment*. Available: [https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA\\_Noise\\_and\\_Vibration\\_Manual.pdf](https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Noise_and_Vibration_Manual.pdf). Accessed: February 28, 2020.

**Table 4.10-4. Guideline Vibration Annoyance Potential Criteria**

<b>Human Response</b>	<b>Maximum PPV (in/sec)</b>	
	<b>Transient Sources</b>	<b>Continuous/Frequent Intermittent Sources</b>
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.9	0.10
Severe	2.0	0.4

Notes: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory-compaction equipment.

Source: California Department of Transportation. 2013b. *Transportation and Construction Vibration Guidance Manual*. September. Available: <https://www.placer.ca.gov/DocumentCenter/View/8273/Caltrans-2013-Transportation-and-Construction-Vibration-Guidance-Manual-PDF>. Accessed: February 28, 2020.

<sup>3</sup> California Department of Transportation. 2013b. *Transportation and Construction Vibration Guidance Manual*. Available: <https://www.placer.ca.gov/DocumentCenter/View/8273/Caltrans-2013-Transportation-and-Construction-Vibration-Guidance-Manual-PDF>. Accessed: February 28, 2020.

## Existing Land Uses

As shown in Figure 3-2 in Chapter 3, *Project Description*, the project site is surrounded by a variety of land uses, including industrial uses to the east and south, agricultural uses to the south, mixed-use commercial areas to the southwest, and residential areas on all sides of the site. Noise-sensitive land uses<sup>4</sup> in the vicinity of the project site comprise primarily neighborhoods with single- and multi-family residences. The noise-sensitive land uses in closest proximity to the project site are as follows.

- Single-family homes located on Torrey Pine Lane approximately 80 feet from the eastern boundary of the project site, with backyards adjacent to 7<sup>th</sup> Street. This is the nearest noise-sensitive receptor to the project site.
- Single-family homes along Decoto Road and the cross streets (i.e., 8<sup>th</sup> Street and 9<sup>th</sup> Street) are located approximately 115 feet from the northern boundary of the project site.
- Near the proposed off-site railway improvements area, where Decoto Road crosses the Niles subdivision Union Pacific Railroad (UPRR) tracks (near 12<sup>th</sup> Street and Decoto Road), there are single family homes located along 11<sup>th</sup> Street and a park (Charles F. Kennedy Park) south of 12<sup>th</sup> Street. Both the single-family homes and the park are approximately 100 feet from the proposed off-site railway improvements area.
- Multi-family housing, the Union Flats apartment building, which is adjacent to Cheeves Way and Berger Way, is approximately 250 feet west of the project site. The Station Center apartment building, which is next to the Union Flats building, is approximately 480 feet from the project site.
- A children's playground (approximately 600 feet from the project site) and associated school classrooms (approximately 950 feet from the project site) at Guy Emanuele Jr. Elementary School, are located east of the project site.

Other non-sensitive land uses in the area include Alameda County Fire Station 33, east of the project site across 7<sup>th</sup> Street, and industrial uses with cold storage and glass manufacturing facilities east of the project site. The project site is currently occupied by a number of vacant industrial uses, which would be removed with development of the project and are not considered noise-sensitive land uses.

Multiple parks and recreational areas are in the vicinity of the project site. Shorty Garcia Park is directly east of the project site. It includes two artificial-turf soccer fields and basketball courts. Charles F. Kennedy Community Center and Park is a large park and playground located approximately 0.2 mile west of the project site. Several smaller parks, such as Willow Park (0.1 mile east of the project site), Decoto Plaza Park (0.4 mile north), and Fred Castro Park (0.3 mile north), are scattered throughout the surrounding area. These uses are not considered to be noise-sensitive, because noise at such types of uses does not typically result in notable

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<sup>4</sup> Noise-sensitive land uses are generally defined as locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Noise-sensitive land uses typically include single- and multi-family residential areas, health care facilities, lodging facilities, and schools. Recreational areas where quiet is an important part of the environment can also be considered sensitive to noise. Some commercial areas may be considered noise sensitive as well, such as outdoor restaurant seating areas. Policy S.8-1 of the City's 2040 General Plan includes a list of land use categories that the City considers to be noise sensitive.

human disturbance, such as interrupting sleep or school activities. As noted above, the children's playground at Guy Emanuele Jr. Elementary School is considered a noise-sensitive land use.

### Existing Noise Sources

As noted in Chapter 3, *Project Description*, the project site is currently zoned RDC (Research and Development Campus). A variety of warehouse buildings, light industrial buildings, and residential development is located in the area surrounding the project site. The predominant ambient noise sources at nearby receptors are automobile traffic along nearby roadways, primarily Decoto Road, 7<sup>th</sup> Street, and Bradford Way. Rail activity is a frequent noise source in the area as well and includes both BART vehicles and heavy rail vehicles, such as Amtrak passenger trains and freight trains. Noise from the BART tracks influences the existing environment through both wheels-on-rail noise and the electric motor noise. Similarly, the heavy rail noise sources includes train horns, which are activated at right-of-way crossings at Decoto Road. Heavy rail noise is also comprised of wheels-on-rail and locomotive engine operation noise. There are also occasional aircraft overflights consisting of both large and small aircraft heading to and from Oakland International Airport and Hayward Executive Airport.

At the existing land uses at and adjacent to the project site, there are also sources of noise that contribute to the ambient noise environment. These sources of noise are best characterized as general industrial sources and include noise generated from the loading and unloading of trucks, mechanical humming from industrial machinery, and spraying of air and/or water.

### Existing Noise Levels

To quantify existing ambient noise levels in the project area, long-term (48-hour) and short-term (15-minute) ambient noise measurements were conducted for this analysis. For the complete dataset of measured noise levels, refer to **Appendix 4.10**.

Long-term measurements were conducted between Monday, February 24, and Wednesday, February 26, 2020; short-term measurements were conducted on Monday, February 24, 2020. The noise measurement sites are shown in Figure 4.10-1. As shown, the measurements were taken at locations adjacent to the project site, and the measurement locations were selected to capture noise levels in areas that are sensitive to noise.

Table 4.10-5 and Table 4.10-6 summarize the results of the noise long-term and short-term measurement surveys, respectively. Existing noise levels in the project area are generally relatively loud and characteristic of an urban/City environment, with all long-term measurements having an  $L_{dn}$  of more than 65 dBA.



ICF Graphics ... 0001119 (5-19-2020).JC



Figure 4.10-1  
Noise Measurement Locations

**Table 4.10-5. Long-Term Noise Level Measurements Near the Project Site**

Site	Site Description	Time Period	Primary Noise Sources	Measured L <sub>dn</sub> (dBA)	
				Day 1	Day 2
LT-1	In front of 33928 9 <sup>th</sup> Street, approximately 70 feet west of Decoto Road	2/24/20 – 2/26/20	<ul style="list-style-type: none"> <li>• Vehicle traffic on Decoto Road</li> <li>• BART track noise</li> <li>• Aircraft overflights</li> <li>• Heavy rail track noise</li> </ul>	72.1	72.4
LT-2	North side of 7 <sup>th</sup> Street, near Daggett Avenue walkway	2/24/20 – 2/26/20	<ul style="list-style-type: none"> <li>• Vehicle traffic on 7<sup>th</sup> Street</li> <li>• BART track noise</li> <li>• Industrial machinery</li> <li>• Aircraft overflights</li> </ul>	72.4	72.5
LT-3	West side of Berger Way, mid-way between Cheeves Way and 11 <sup>th</sup> Street	2/24/20 – 2/26/20	<ul style="list-style-type: none"> <li>• Vehicles traffic on Berger Way</li> <li>• BART track noise</li> <li>• Heavy rail track noise</li> </ul>	67.4	69.1

Notes:  
For the complete dataset of measured noise levels, refer to **Appendix 4.10**.  
Day 1 is from mid-day 2/24/2020 to mid-day 2/25/2020  
Day 2 is from mid-day 2/25/2020 to mid-day 2/26/2020

**Table 4.10-6. Short-Term Noise Level Measurements Near the Project Site**

Site	Site Description	Time Period	Primary Noise Sources	Measured Noise Level (dBA)		
				L <sub>eq</sub>	L <sub>max</sub>	L <sub>min</sub>
ST-1	Sidewalk in front of 33948 Depot Road	12:56 PM to 1:11 PM	<ul style="list-style-type: none"> <li>• Vehicle traffic on Decoto Road</li> <li>• BART track noise</li> <li>• Aircraft overflights</li> <li>• Heavy rail track noise</li> </ul>	63.9	89.2	39.8
ST-2	East side of 7 <sup>th</sup> Street at Bradford Way	12:16 PM to 12:31 PM	<ul style="list-style-type: none"> <li>• Vehicle traffic on 7<sup>th</sup> Street</li> <li>• BART track noise</li> <li>• Industrial machinery</li> <li>• Aircraft overflights</li> </ul>	67.8	81.1	46.3

Notes:  
For the complete dataset of measured noise levels, please refer to **Appendix 4.10**.

### 4.10.1.3 Regulatory Setting

Federal, State, and local agencies regulate different aspects of environmental noise. Generally, the federal government sets noise standards for transportation-related noise sources that are closely linked to interstate commerce. These sources include aircraft, locomotives, and trucks. The State government sets noise standards for transportation noise sources such as automobiles, light trucks, and motorcycles. Noise sources associated with industrial, commercial, and construction activities are generally subject to local control through noise ordinances and general plan policies. Local general plans identify general principles that are intended to guide and influence development plans. The State and local noise policies and regulations that are applicable to the project are described below.

#### State

California Code of Regulations Title 24, part 2, Sound Transmission, establishes minimum noise insulation standards to protect persons within new hotels, motels, dormitories, long-term care facilities, apartment houses, and dwellings other than single-family residences. Under this regulation, interior noise levels attributable to exterior noise sources cannot exceed 45 dB in any habitable room. The noise metric is either the  $L_{dn}$  or the CNEL. Compliance with Title 24 interior noise standards occurs during the permit review process and generally protects a proposed project's users from existing ambient outdoor noise levels. If determined necessary, a detailed acoustical analysis of exterior wall and window assemblies may be required.

#### Local

The City of Union City (City) sets noise standards in the Health and Safety Element of the City of *City of Union City 2040 General Plan* (General Plan) and in the Community Noise Ordinance of the Union City Municipal Code (Chapter 9.40). The City identifies exterior noise thresholds up to 60 dBA CNEL as "normally acceptable" for residential land uses, as well as for churches. Environments with noise levels between 60 dBA and 70 dBA CNEL are considered conditionally acceptable for residences and churches, provided a detailed analysis of the noise reduction requirements is made and needed insulation features are incorporated into the design.

The City also regulates construction noise in the noise policies of the Health and Safety Element of the General Plan and in the City's Community Noise Ordinance. Per Union City Municipal Code Section 9.40.053, noise-producing construction activities are restricted to weekdays from 8:00 a.m. to 8:00 p.m., Saturdays from 9:00 a.m. to 8:00 p.m., and Sundays and holidays from 10:00 a.m. to 6:00 p.m. In addition, the City's Community Noise Ordinance requires that permitted construction activities must meet at least one of the following noise limitations:

- No individual piece of equipment shall produce a noise level exceeding 83 dBA at a distance of 25 feet. If the device is housed within a structure on the property, the noise measurement shall be made outside the structure at a distance as close to 25 feet from the equipment as possible; or
- The noise levels at any point outside the property plane of the project shall not exceed 86 dBA.

With regards to stationary noise sources, Section 9.40.041 of the City's Community Noise Ordinance prohibits any person from making or permitting noise, on a residential property, so as to produce noise levels more than 10 dBA above the local ambient level at any point outside the property plane. Section 9.40.042 limits the noise increase, on commercial or industrial properties, to more than

12 dBA above the local ambient level at any point outside the property plane. Section 9.40.050 allows a daytime exception to this standard, provided the noise level does not exceed 70 dBA  $L_{max}$  as measured at a distance of 25 feet from the noise source under its most noisy condition. The permitted hours for this exception are 8:00 a.m. to 8:00 p.m. Monday through Saturday and 10:00 a.m. to 6:00 p.m. Sundays and holidays.

### **City of Union City 2040 General Plan**

The General Plan includes the following goals and policies associated with noise and vibration:

**Goal S-8:** To protect public health and welfare by minimizing excessive noise and vibration.

**Policy S-8.1: Noise Sensitive Land Uses.** The City shall consider the following land uses to be “noise sensitive”:

1. Single- and multi-family residential;
2. Group homes;
3. Hospitals and other medical facilities;
4. Schools and other learning institutions;
5. Libraries; and
6. Similar uses as may be determined by the City.

**Policy S-8.2: Noise Standards Applied to New Development.** The City shall review new development to determine whether noise levels on the site are consistent with the noise exposure standards in Table S-8.1 (shown below in Figure 4.10-2). Development in areas with “conditionally acceptable” or “normally unacceptable” noise exposure levels may be permitted at the discretion of the City Council. A detailed noise analysis and implementation of appropriate measures shall be required for all developments that have noise exposure levels greater than “normally acceptable.”

**Policy S-8.3: Interior Noise Standards.** The City shall require new residential development to achieve an interior noise level of 45 dBA  $L_{dn}$  (with windows closed). Building features such as forced-air ventilation systems (air conditioning), installation of noise attenuating windows, and use of wall/ceiling insulation may be required to ensure consistency with required interior noise standards.

**Policy S-8.4: Noise Impact Analysis for New Noise Sensitive Land Uses.** For proposed development of new noise sensitive land uses as identified in Policy S-8.1, the City shall require a noise impact analysis in areas where current or future exterior noise levels from transportation sources (i.e., roadway, highway/freeway, rail uses, and aircraft noise) or stationary sources exceed the “normally acceptable” noise standards contained in Table S 8.1 (shown in Figure 4.10-2). This study shall be prepared by a qualified acoustical engineer. The study shall include recommendations to reduce noise exposure to an acceptable level or conditionally acceptable level at the discretion of the City Council.



	55	60	65	70	75	80
Residential - Low Density Single Family, Duplex, Mobile Homes						
Residential - Townhomes, Multi-Family Apartments, Mixed Use, Condominiums <sup>3</sup>						
Urban Residential and Mixed-Use Infill Projects and Public Plazas within one-half mile of the Intermodal Station <sup>3</sup>						
Transient Lodging - Motels/Hotels						
Schools, Libraries, Churches, Hospitals, Extended Care Facilities						
Auditoriums, Concert Halls, Amphitheaters	Threshold and mitigation based on site-specific study of impact on nearby sensitive land uses					
Sports Arenas, Outdoor Spectator Sports	Threshold and mitigation based on site-specific study of impact on nearby sensitive land uses					
Playgrounds, Neighborhood Parks						
Golf Courses, Riding Stables, Water Recreation, Cemeteries						
Commercial buildings including Office Buildings						
Industrial, Manufacturing, Utilities, Agriculture						

1. *L<sub>dn</sub>*, or Day Night Average, is an average 24-hour noise measurement that factors day and night noise levels.
2. *CNEL*, or Community Noise Equivalent Level, measurements are a weighted average of sound levels gathered throughout a 24-hour period.
3. *Applies to the primary open space areas of townhomes and multifamily apartments or condominiums (private rear yards for townhomes; common courtyards, roof gardens, or gathering spaces for multi-family developments). These standards shall not apply to balconies or small attached patios in multi-story multi-family structures.*

**Normally Acceptable.** Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal, conventional construction, without any special noise insulation requirements.

**Conditionally Acceptable.** New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed insulation features included in the design. Conventional construction, that includes closed windows and fresh air supply systems or air conditioning will normally suffice.

**Normally Unacceptable.** New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design. Outdoor areas must be shielded.

**Unacceptable.** New construction or development should not be undertaken.

Source: Union City General Plan 2019



**Figure 4.10-2**  
2040 General Plan Exterior Noise Exposure Standards for New Development

**Policy S-8.5: Disclosure of Potential Noise Sources.** The City shall require that future occupants of new noise sensitive land uses receive full disclosure, through property conveyance or lease documents, of nearby potential noise sources, which may include, but not be limited to, industrial business operations, entertainment uses, roadway, highway/freeway, and rail uses.

**Policy S-8.6: Encourage Non-Structural Methods to Mitigate Noise Impacts.** The City shall encourage the use of site design, setbacks, earth berms, and other non-structural methods to reduce and mitigate the effects of traffic noise, rail noise, and other sources. Building placement should also be used to mitigate noise impacts on outdoor areas. In general, the use of sound walls is discouraged unless no other alternative exists

**Policy S-8.7: Reduce Impacts from New Noise Generating Uses.** The City may require operational limitations and implementation of noise buffering measures for new uses with the potential to generate significant noise (including, but not limited to, industrial uses, auditoriums, concert halls, amphitheaters, sports arenas, outdoor spectator sports fields, and outdoor spectator sports) near existing noise sensitive land uses as identified in Policy S-8.1. A noise impact analysis may be required to evaluate potential noise impacts and identify appropriate buffering measures.

**Policy S-8.8: Limit Construction Hours.** To minimize the potential noise impacts of construction activities on surrounding land uses, the City shall limit construction activities between the hours of 8:00 a.m. and 8:00 p.m. on Monday through Friday, 9:00 a.m. and 8:00 p.m. on Saturdays, and 10:00 a.m. and 6:00 p.m. on Sundays and holidays. The City Manager may make specific exceptions to the construction hours when utility work in the streets would have a severely negative impact on traffic flow and public safety

**Policy S-8.9: Construction Noise Control Measures.** The City shall include the following noise control measures as standard conditions of approval for projects involving construction:

1. Properly muffle and maintain all construction equipment powered by internal combustion engines.
2. Prohibit unnecessary idling of combustion engines.
3. Locate all stationary noise-generating construction equipment such as air compressors as far as practical from existing nearby residences and other noise-sensitive land uses. Such equipment shall also be acoustically shielded.
4. Select quiet construction equipment particularly air compressors, whenever possible. Fit motorized equipment with proper mufflers in good working order.
5. Residences adjacent to project sites shall be notified in advance in writing of the proposed construction schedule before construction activities commence. The construction schedule shall comply with Policy S-8.8.
6. The project applicant shall designate a “noise disturbance coordinator” responsible for responding to any local complaints about construction noise. The disturbance coordinator shall determine the cause of any noise complaint (e.g., starting too early, bad muffler, etc.) and shall require that reasonable measures be implemented to correct the problem. A telephone number for the disturbance coordinator shall be posted at the construction site.

**Policy S-8.10. Construction Vibration Control Measures.** The City shall include the following measures as standard conditions of approval for applicable projects involving construction to minimize exposure to construction vibration:

1. Avoid the use of vibratory rollers (i.e., compactors) within 50 feet of buildings that are susceptible to damage from vibration
2. Schedule construction activities with the highest potential to produce vibration to hours with the least potential to affect nearby institutional, educational, and office uses that the Federal Transit Administration identifies as sensitive to daytime vibration.<sup>5</sup>
3. Notify neighbors of scheduled construction activities that would generate vibration

**Policy S-8.11: New Development to Meet FTA Vibration Guidelines.** The City shall require new development within 150 feet of the centerline of BART tracks or railroad tracks to meet acceptable levels of vibration as defined in the vibration guidelines established by the U.S. Department of Transportation, Federal Transit Administration.

**Policy S-8.13: Enforce Community Noise Ordinance.** The City shall strive to reduce the negative effects of noise sources through the enforcement of the Community Noise Ordinance.

#### ***Decoto Industrial Park Study Area Specific Plan***

The *Decoto Industrial Park Study Area Specific Plan* (DIPSA Specific Plan) (most recently amended in July 2006) includes the following goals and policies associated with noise and vibration:

**Land Use Goal 4:** Guide all new development in the DIPSA in such a way as to ensure harmony with existing and potential uses both within the DIPSA and on the periphery of the area.

**Objective a:** Where appropriate, every effort should be made to integrate new development with adjoining uses and minimize the separation that results from the road corridors, rail lines, flood control channels, etc. in the Plan area. However, there should be distinct visual separation, noise buffering, etc., between new residential uses and existing industrial uses that are preserved by the Specific Plan

**Circulation Goal 13:** Develop an efficient circulation system to accommodate both locally generated and regional traffic along attractive travel routes.

**Objective f:** Minimize the impacts of traffic, including traffic noise, on existing and new residential uses, commercial and other, more sensitive, business uses.

**Environmental Goal 5:** Noise studies shall be conducted as part of any proposed noise sensitive or noise generating land uses. The study shall identify means to control outdoor and, for noise sensitive uses, indoor noise levels consistent with the standards in the General Plan.

**Community Design - Residential Neighborhood Design Policy and Guidelines 5:** The design of housing units and site plans for residential areas should provide for visual privacy and protection from unwanted noise and light. Where necessary, screening walls and fencing, dense landscaping, etc., should be provided to achieve these objectives

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<sup>5</sup> Federal Transit Administration. 2006. *Transit Noise and Vibration Impact Assessment*. May. FTA-VA-090-1003-06. Office of Planning and Environment. Available: [https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA\\_Noise\\_and\\_Vibration\\_Manual.pdf](https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Noise_and_Vibration_Manual.pdf). Accessed: February 28, 2020.

## 4.10.2 Environmental Impacts

This section contains the impact analysis for the proposed project as it relates to noise and vibration. The methods used to determine the potential project-related impacts, as well as the thresholds of significance used to conclude whether or not an impact would be significant, are described below. Measures that would mitigate (i.e., avoid, minimize, rectify, eliminate, or compensate for) significant impacts are included within each impact discussion where they have been deemed necessary and appropriate.

### 4.10.2.1 Thresholds of Significance

California Environmental Quality Act (CEQA) Guidelines Appendix G (14 California Code of Regulations [CCR] 15000 et seq.) identifies significance criteria to be considered for determining whether a project could have significant impacts on existing noise and vibration. Would the project result in:

- Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
- Generation of excessive ground-borne vibration or ground-borne noise levels?
- For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, will the project expose people residing or working in the project area to excessive noise levels?

### 4.10.2.2 Methods for Analysis

As described in Section 4, *Environmental Impact Analysis*, subsequent to the drafting of this EIR, the applicant indicated that the residential units associated with proposed project would increase by 10, from 964 to 974 units. As described therein, the analysis presented throughout this EIR adequately accounts for the potential environmental impacts of the 974 new residential units.

This noise impact analysis evaluates the temporary noise increase associated with project construction activities, operational noise generated by sound-generating equipment, and traffic noise associated with project-related changes in traffic patterns.

Noise impacts associated with on-site demolition and construction were evaluated using the noise calculation method and construction equipment noise data in the Federal Highway Administration (FHWA) Roadway Construction Noise Model. The data includes the A-weighted  $L_{max}$ , measured at a distance of 50 feet from the construction equipment, and the utilization factors for the equipment. The utilization factor is the percentage of time each piece of construction equipment is typically operated at full power over the specified time period. It is used to estimate  $L_{eq}$  values from  $L_{max}$  values. For example, the  $L_{eq}$  value for a piece of equipment that operates at full power over 50 percent of the time is 3 dB less than the  $L_{max}$  value.<sup>6</sup> The individual and combined construction equipment noise was evaluated for its potential to exceed either of the two noise limitations outlined in the City's Community Noise Ordinance, as discussed under *Regulatory Setting*.

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<sup>6</sup> Federal Highway Administration. 2006. *FHWA Roadway Construction Noise Model User's Guide*. FHWA-HEP-05-054. January. Available: <https://www.placer.ca.gov/DocumentCenter/View/8271/FHWA-2006-Roadway-Construction-Noise-Model-User-Guide-PDF>. Accessed: February 28, 2020.

With respect to vibration impacts, guidelines developed by Caltrans to assess potential vibration-related damage and annoyance effects are used as guidelines for determining if impacts would occur.

Direct noise impacts associated with increased traffic volumes from project buildout were quantitatively evaluated for the following conditions:

- Existing
- Existing + Project

Quantitative modeling of traffic noise from the project was conducted using a spreadsheet tool based on the FHWA Traffic Noise Model (TNM), version 2.5. The spreadsheet calculates the traffic noise level at a fixed distance from the centerline of a roadway, based on the traffic volume, roadway speed, and vehicle mix that is predicted to occur under each condition. Traffic volumes for each analyzed scenario and existing truck volume percentages were provided by the traffic consultant retained for the project.

As discussed previously in the *Overview of Noise and Sound* section, a change of 3 dB is barely noticeable, a change of 5 dB is clearly noticeable, and a change of 10 dB is perceived as doubling or halving the sound level as it increases or decreases. Consequently, an increase in traffic noise levels of 3 dB or more (considered “barely noticeable”) along roadway segments would be considered a significant increase.

Traffic noise impacts on future on-site noise-sensitive uses were analyzed in accordance with the *California Building Industry Association v. Bay Area Air Quality Management District* (CBIA v. BAAQMD) case,<sup>7</sup> which establishes that the effects of the environment on a project are not considered impacts, unless a project exacerbates the hazard or worsens the noise effect. Because development of the project would result in an increase in traffic noise on new roadways, the potential for future on-site sensitive receptors to be exposed to traffic noise is considered in the analysis. For train- and railroad-related noise, however, the project would not result in a change in the level of noise generated from these sources because the project itself would not result in increased rail-related activity. For this reason, this analysis does not evaluate the effects of existing train and railroad noise sources on future on-site receptors. Nevertheless, Title 24 standards with respect to sound transmission would apply to the new residential buildings and would ensure that exterior noise sources would not exceed 45 dB in any habitable room.

Operational noise impacts associated with the proposed on-site activities and stationary sources of noise were also evaluated, based on the proposed site plan layout and the types of noise-generating equipment and activities that would occur with buildout of the project. To not exceed applicable Union City Municipal Code limits, noise from project sources was evaluated for the potential to cause an increase of 10 dB above ambient levels in residential areas and 12 dB above ambient levels in commercial or industrial areas.

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<sup>7</sup> *California Building Industry Association v. Bay Area Air Quality Management District*, Supreme Court Case No. S213478.

### 4.10.2.3 Issues Not Evaluated Further

**For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, will the project expose people residing or working in the project area to excessive noise levels.**

The nearest aviation facilities are Hayward Executive Airport, approximately 6.3 miles northwest of the project site, and Palo Alto Airport, approximately 11 miles southwest. Therefore, the project site is not within any Airport Influence Areas. Thus, the project site is not located within the 2-mile reference distance from a private airstrip and is not located within an airport land use plan. Additionally, CEQA does not require the evaluation of how existing environmental impacts would affect a proposed project, unless the project would exacerbate the existing impacts. Because the project is more than two miles from and would not affect aircraft noise at Hayward Executive Airport or any other airport, no evaluation of the effects of aircraft noise at the project site is necessary and the proposed project would have *no impact*. This topic is not addressed further in this EIR.

**Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? (Train Horn Noise)**

Regarding train horn noise, the NOP comments expressed concern that train horn noise may increase relative to existing conditions due to the increased pedestrian and vehicle traffic that the project would result in. Train horn noise is a regular source of noise in the project area because train operators are required to operate the train horns at right-of-way crossings. If people or vehicles are present at the Decoto Road right-of-way crossing and are not appropriately yielding to the train, the train operator may operate the horn for longer or for additional intervals to provide further warning. However, these types of scenarios are not considered typical conditions. The crossing site is currently equipped with gates, lights, and bells to prevent scenarios where vehicles or pedestrian could interfere with train traffic. As such, determining the incremental noise effect of additional train horns due to increased pedestrian or vehicle traffic would be speculative and cannot be reasonably approximated. In addition, for the purposes of this analysis, it is assumed that the proposed railway improvements would include features that would generate a similar amount of noise to the existing equipment at the crossing site. This topic is not addressed further in this EIR.

### 4.10.2.4 Impacts and Mitigation Measures

**Impact NOI-1: The project could generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. (Less than Significant with Mitigation)**

#### Construction

Construction of the project is scheduled to commence in mid-2021 and end in late 2025, a period of approximately 4.5 years; the first occupancy would be in 2023. First, the existing structures and parking lots on the project site would be demolished and trees would be removed. Then, grading and street and utility construction would occur.

“Horizontal” construction would include all major streets on the entire project site as well as required off-site street improvements. “Vertical” construction would include construction of the buildings as well as private lanes and alleys for access to individual residential units. “Vertical” construction is anticipated to occur in two phases: Phase 1 and Phase 2. Phase 1 of “vertical” construction would include the 683 residential units in PAs 1, 2, 3, 5, 7, 9 and 11A as well as the 30,800 sf of commercial space in PA 1 and PA 2. Phase 2 of “vertical” construction would include the 281 residential units in PAs 4, 6, 8 and 10. After the grading and demolition stage, both phases of construction would include the following stages: (1) “horizontal” construction, (2) home/retail construction for Phase 1 or home construction for Phase 2, (3) paving, and (4) architectural coatings. An additional activity involving the railway improvements would also occur separately from the two primary construction phases.

Demolition and construction activities would generate noise and temporarily increase noise levels at adjacent land uses. The significance of potential noise impacts resulting from demolition and construction depends on the noise generated by the various pieces of construction equipment, the timing and duration of noise-generating activities, and the distance between construction noise sources and noise-sensitive receptors. Potential construction noise impacts are typically more substantial when construction occurs during noise-sensitive times of the day (e.g., early morning, evening, nighttime hours near residential uses), the construction occurs in areas immediately adjoining noise-sensitive land uses, or the construction lasts for extended periods of time.

As previously discussed, the City’s Community Noise Ordinance restricts construction to the hours of 8:00 a.m. to 8:00 p.m. on weekdays, 9:00 a.m. to 8:00 p.m. on Saturdays, and 10:00 a.m. to 6:00 p.m. on Sundays and holidays. Construction of the project would occur for approximately 8 hours per day and would be limited to the allowable hours specified in the City’s Community Noise Ordinance.

The specific construction equipment expected to be used for project construction is included in Table 4.10-7. This list of equipment was generated through the CalEEMod program, which was used for the analysis in Section 4.1, *Air Quality*, and represents typical construction equipment for a project of this type and scale. Table 4.10-7 shows the corresponding  $L_{max}$  and  $L_{EQ}$  sound levels at 50 feet and the typical acoustical use factors for each piece of construction equipment expected to be used during construction of the project. The acoustical use factor, or utilization factor, is the percentage of time each piece of construction equipment is assumed to be operating at full power (i.e., the noisiest condition) during construction. It is used to estimate  $L_{EQ}$  values from  $L_{max}$  values. For example, the  $L_{EQ}$  value for a piece of equipment that operates at full power 50 percent of the time (acoustical use factor of 50) is 3 dB less than the  $L_{max}$  value.

The noise generated by the construction equipment is provided in Table 4.10-7.

As previously discussed, the City’s Community Noise Ordinance states one of two noise restrictions must be met. The first restriction states that no individual piece of equipment shall produce a noise level exceeding 83 dBA at a distance of 25 feet. The  $L_{max}$  noise levels associated with typical construction equipment at a distance of 25 feet and the types of equipment that would exceed the noise ordinance limit are indicated in bold underline in Table 4.10-7. As shown in the table, noise levels from equipment could be up to 96  $L_{max}$  for a concrete saw at a distance of 25 feet, which exceeds the 83 dBA  $L_{max}$  limit. Additionally, most other types of equipment used during construction could also exceed 83 dBA  $L_{max}$  at a distance of 25 feet. Therefore, the project would not comply with the Community Noise Ordinance restriction that limits individual equipment noise to 83 dBA at 25 feet.

**Table 4.10-7. Construction Noise Equipment Data for Each Construction Phase**

Equipment and Phase	L <sub>max</sub> at 50 feet (dBA) <sup>a</sup>	L <sub>eq</sub> at 50 feet (dBA) <sup>b</sup>	Acoustical Usage/ Utilization Factor	L <sub>eq</sub> at 25 feet (dBA) <sup>c</sup>
<b>Demolition (Construction Phase 1)</b>				
Concrete/Industrial Saws	90	83	20%	<b><u>96</u></b>
Excavators	81	77	40%	<b><u>87</u></b>
Rubber Tired Dozers	82	78	40%	<b><u>88</u></b>
<b>Grading (Construction Phase 1)</b>				
Excavators	81	77	40%	<b><u>87</u></b>
Graders	85	81	40%	<b><u>91</u></b>
Rubber Tired Dozers	82	78	40%	<b><u>88</u></b>
Scrapers	84	80	40%	<b><u>90</u></b>
Tractors/Loaders/Backhoes	84	80	40%	<b><u>90</u></b>
<b>Site Preparation (Construction Phases 1 and 2)</b>				
Rubber Tired Dozers	82	78	40%	<b><u>88</u></b>
Tractors/Loaders/Backhoes	84	80	40%	<b><u>90</u></b>
<b>Paving (Construction Phases 1 and 2)</b>				
Pavers	77	74	50%	83
Paving Equipment	90	83	20%	<b><u>96</u></b>
Rollers	80	73	20%	<b><u>86</u></b>
<b>Building Construction (Construction Phases 1 and 2)</b>				
Cranes	81	73	16%	<b><u>87</u></b>
Forklifts <sup>d</sup>	84	80	40%	<b><u>90</u></b>
Generator Sets	81	78	50%	<b><u>87</u></b>
Tractors/Loaders/Backhoes	84	80	40%	<b><u>90</u></b>
Welders	74	70	40%	<b><u>80</u></b>
<b>Architectural Coating (Construction Phases 1 and 2)</b>				
Air Compressors	78	74	40%	<b><u>84</u></b>
<b>Rail Crossing</b>				
Tractors/Loaders/Backhoes	84	80	40%	<b><u>90</u></b>

## Notes:

- a. These values represent the loudest noise levels generated by each equipment type at a distance of 50 feet.  
b. These values represent the average noise levels generated by each equipment type at a distance of 50 feet.  
c. These values represent the loudest noise levels generated by each equipment type at a distance of 25 feet. Noise levels at 25 feet that would exceed the City's Community Noise Ordinance are bolded and underlined.  
d. Represented by "tractor" from the Federal Highway Administration's *User's Guide*.

Source: Federal Highway Administration. 2006. *FHWA Roadway Construction Noise Model User's Guide*. FHWA-HEP-05-054. January. Available: [http://www.fhwa.dot.gov/environment/noise/construction\\_noise/rcnm/rcnm.pdf](http://www.fhwa.dot.gov/environment/noise/construction_noise/rcnm/rcnm.pdf). Accessed: February 28, 2020.



The second restriction in the City's Community Noise Ordinance states that noise levels at any point outside the property plane<sup>8</sup> of the project shall not exceed 86 dBA. As noted above in *Regulatory Setting*, only one of the two restrictions must be met for construction to comply with the ordinance. To provide a conservative and reasonable worst-case analysis of potential noise impacts from the use of construction equipment during project construction, it was assumed that the three loudest pieces of equipment for each construction phase would operate simultaneously in the same location on the project site. The noise levels from the three loudest pieces of equipment were combined for each phase, and the results of this analysis are shown in Table 4.10-8 for increasing distances.

Using the noise levels from Table 4.10-8, the distance at which the noise ordinance limit of 86 dBA would be reached has been calculated in Table 4.10-9. The values in Table 4.10-9 represent the distances for each construction sub-phase where the noise generated would meet and not exceed the construction noise ordinance limit of 86 dBA. For example, between zero and 91 feet of the construction equipment, demolition activity would exceed 86 dBA. Beyond 91 feet, the noise would be below 86 dBA. The values in Table 4.10-9 are based on  $L_{max}$  noise levels for the three loudest pieces of equipment for each sub-phase.

Based on the values in Table 4.10-9, the combined noise levels for most of the sub-phases of construction could exceed 86 dBA  $L_{max}$  at areas that are beyond the property plane of the project. For example, grading activity would likely occur throughout the project site, including near the boundaries of the site; therefore, the grading activity would likely occur less than 69 feet from the boundary of the property plane, and the noise ordinance limit of 86 dBA would be exceeded outside of the property plane. Additionally, because certain areas of the project site (e.g., Phase 1 areas) may be occupied by new residents while construction is occurring in other areas (e.g., Phase 2), construction noise may also exceed the limit of 86 dBA at new project residences and would be an exacerbation of current noise levels. Therefore, construction noise associated with the proposed project would exceed the Union City Municipal Code restriction of 86 dBA at the property plane.

Project construction is therefore not expected to comply with the first restriction (limiting noise levels from individual pieces of equipment to 83 dBA  $L_{max}$  at a distance of 25 feet) or with the second restriction of the noise ordinance (noise levels outside the property plane). This impact could be significant. Implementation of Mitigation Measure NOI-1a, Construction Noise Control Plan, and compliance with the allowable hours of noise-producing construction activity stated in Union City Municipal Code Section 9.40.053 would reduce short-term construction noise such that the activity would be in compliance with the City's Community Noise Ordinance. Therefore, this impact would be ***less than significant with mitigation***.

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<sup>8</sup> For the purposes of this analysis, the "property plane" is assumed to be the boundaries of the project site.

**Table 4.10-8. Construction Noise Equipment Data for Each Project Phase (L<sub>max</sub> and L<sub>eq</sub>)**

Distance Between Source and Receiver (feet)	Demolition <sup>a</sup>	Grading <sup>b</sup>	Site Preparation <sup>c</sup>	Paving <sup>d</sup>	Building Construction <sup>e</sup>	Architec- tural Coating <sup>f</sup>	Rail- way Im- prove- ments <sup>g</sup>
50	91	89	89	93	89	78	89
100	85	83	83	87	83	72	83
200	79	77	77	81	77	66	77
300	76	74	73	78	73	62	73
400	73	71	71	75	71	60	71
500	71	69	69	73	69	58	69
600	70	68	67	72	67	56	67
700	68	66	66	70	66	55	66
800	67	65	65	69	65	54	65
900	66	64	64	68	64	53	64
1,000	65	63	63	67	63	52	63
Noise Levels - L <sub>eq</sub>							
50	85	85	85	86	85	74	85
100	79	79	79	80	79	68	79
200	73	73	73	74	73	62	73
300	70	70	69	71	69	58	69
400	67	67	67	68	67	56	67
500	65	65	65	66	65	54	65
600	64	64	63	65	63	52	63
700	62	62	62	63	62	51	62
800	61	61	61	62	61	50	61
900	60	60	60	61	60	49	60
1,000	59	59	59	60	59	48	59

Geometric attenuation based on 6 decibels per doubling of distance. This calculation does not include the effects, if any, of local shielding.

L<sub>eq</sub> noise is presented in dBA units, which approximate the frequency response of the human ear.

- a. For this activity, the three loudest pieces of equipment are a concrete saw and two rubber tired dozers.
- b. For this activity, the three loudest pieces of equipment are a grader, a scraper, and a tractor.
- c. For this activity, the three loudest pieces of equipment are all tractors.
- d. For this activity, the three loudest pieces of equipment are two paving equipment items (e.g., a pavement scarifier) and one roller.
- e. For this activity, the three loudest pieces of equipment are all forklifts.
- f. For this activity, the only equipment is an air compressor.
- g. For this activity, the three loudest pieces of equipment are all tractors.

**Table 4.10-9. Construction Noise Levels – Distances to Meet the Noise Ordinance Property Plane Limit**

<b>Construction Sub-Phase</b>	<b>Distance to Meet Noise Ordinance Limit (feet)<sup>a</sup></b>
Demolition	91
Grading	69
Site Preparation	72
Paving	115
Building Construction	69
Architectural Coating	20
Rail Crossing	69

Notes:

<sup>a</sup> These values represent the distances for each construction sub-phase where the noise generated would meet and not exceed the construction noise ordinance limit of 86 dBA. For example, between zero and 91 feet of the construction equipment, demolition activity would exceed 86 dBA. Beyond 91 feet, the noise would be below 86 dBA. These values are  $L_{max}$

**Mitigation Measure NOI-1a: Construction Noise Control Plan**

Prior to demolition or grading permit issuance, the project applicant shall submit a noise control plan to reduce construction noise levels such that project construction noise would be in compliance with the City's Community Noise Ordinance, as determined by a qualified acoustical consultant, for approval by the Economic and Community Development Department. The plan shall require one of the following measures in order to achieve this result:

- Noise producing construction activities shall be restricted to the hours of 8:00 a.m. to 8:00 p.m. during weekdays; 9:00 a.m. to 8:00 p.m. on Saturdays; and 10:00 a.m. to 6:00 p.m. on Sundays and holidays. In addition, permitted construction activities shall meet at least one of the following noise limitations:
    - No individual piece of equipment shall be permitted to produce a noise level exceeding 83 dBA as measured at a distance of 25 feet. This could be achieved in a variety of ways, including but not limited to, selecting quieter equipment that generates noise levels of less than 83 dBA  $L_{max}$  at a distance of 25 feet, or incorporating sound muffling devices on construction equipment;
- OR
- The noise levels at any point outside the property plane<sup>9</sup> of the project shall not exceed 86 dBA. This could be achieved in a variety of ways, including, but not limited to, ensuring equipment is operating at sufficient distances from the edge of the project site property line, incorporating sound muffling devices on construction equipment, or utilizing temporary noise barriers to reduce construction noise when construction equipment must be in proximity to the edge of the property line (particularly near noise-sensitive land uses).

<sup>9</sup> For the purposes of this analysis, the "property plane" is assumed to be the boundaries of the project site.

- All construction equipment shall have appropriate sound muffling devices, which shall be properly maintained and used at all times such equipment is in operation.
- The project contractor shall place all stationary construction equipment so that emitted noise is directed away from the closest off-site sensitive receptors.
- The construction contractor shall locate on-site equipment staging areas so as to maximize the distance between construction-related noise sources and the noise-sensitive receptors closest to the project construction areas.
- A publicly visible sign shall be posted with the telephone number and contact information for the designated on-site construction manager available to receive and respond to noise complaints. This person shall report all complaints to the City of Union City Public Works Department.

## Traffic

The project would result in increased traffic volumes on existing roadways in the project area, because new residences and places of employment would be added to the project site. Future residents, employees, and visitors would travel to and from the site on existing roadways, potentially increasing traffic noise levels in the area. Using the average daily traffic volumes provided by the traffic consultant, traffic noise levels were quantified for two scenarios: existing conditions and existing plus project conditions. The difference in noise between these two scenarios represents the project's incremental contribution to noise levels in the area. Table 4.10-10 shows the results of the noise modeling analysis for existing roadways.

**Table 4.10-10. Existing Roadways – Traffic Noise Impacts**

<b>Roadway Segment</b>	<b>Existing (CNEL)</b>	<b>Existing + Project (CNEL)</b>	<b>Increase (dB)</b>	<b>Significant Impact?<sup>a</sup></b>
7 <sup>th</sup> Street Between Decoto Road and Mission Boulevard	66.7	68.4	1.7	No
7 <sup>th</sup> Street Between Decoto Road and Mission Boulevard	66.7	67.3	0.6	No
11 <sup>th</sup> Street Between Decoto Road and Green Street	60.2	60.3	< 0.1	No
Decoto Road Between Mission Boulevard and 11 <sup>th</sup> Street	68.6	69.1	0.5	No
Decoto Road Between 11 <sup>th</sup> Street and Alvarado-Niles Road	68.6	69.4	0.8	No
Alvarado-Niles Road between H Street and Decoto Road	70.0	70.0	0.1	No
Alvarado-Niles Road between Decoto Road and Union Square	67.6	67.6	< 0.1	No

Notes:

- <sup>a</sup>. A 3 dB or less change in noise levels traffic would not constitute a significant impact, because such a change in noise is considered just noticeable.

As shown in Table 4.10-10, the maximum increase in the existing plus project scenario relative to the existing scenario is 1.7 dB, which would occur on 7<sup>th</sup> Street between Decoto Road and Mission Boulevard. As noted above, a change of 3 dB is just noticeable, so a change of 1.7 dB would not be noticeable. Consequently, the project would not cause existing traffic noise to increase by a noticeable amount. Therefore, this impact would be *less than significant*.

In addition to affecting the noise levels on existing roads in the project area, the project would also affect noise on roadways that are not currently built but would be when the project is completed. These new roadways would intersect the project site, affecting proposed noise-sensitive land uses, but would not be in close proximity to any existing noise-sensitive uses.

In accordance with the CBIA v. BAAQMD case, it is only necessary to evaluate the environmental impacts on proposed project uses if the project itself would worsen existing noise. Thus, with respect to these not-yet-constructed roadways, it is necessary to determine if the project-generated traffic would exacerbate noise levels in the area. For the two new roadways, the existing plus project noise levels are shown in Table 4.10-11.

**Table 4.10-11. New Roadways – Traffic Noise Impacts**

<b>Roadway Segment<sup>a</sup></b>	<b>Traffic-Only Existing + Project (CNEL)</b>	<b>Background Noise in Project Area (CNEL)<sup>b</sup></b>	<b>Overall Existing + Project Noise in Project Area (CNEL)<sup>c</sup></b>	<b>Increase (dB)</b>	<b>Significant Impact?<sup>d</sup></b>
Zwissig Way Extension – between Bradford Way and Decoto Road <sup>b</sup>	55.0	67.4 – 72.5	67.6 - 72.6	0.1 – 0.2	No
9 <sup>th</sup> Street Extension between Bradford Way and Decoto Road <sup>b</sup>	54.2	67.4 – 72.5	67.6 - 72.6	0.1 – 0.2	No

Notes:

- a. These roadways are future roadway segments that have not yet been constructed.
- b. These values are the long-term measurements from Table 4.10-5.
- c. These values represent the existing plus project noise combined with the background noise, through decibel addition.
- d. There is no significant impact, because the effect of the traffic-only noise would only increase the background noise levels by a less-than-perceptible increment.

As shown in Table 4.10-11 (column 2), existing plus project noise levels on the two new roadways would be 55 dBA CNEL or less. In the vicinity of the project area, the existing noise level ranges from 67.4 to 72.5 dBA CNEL, as shown in Table 4.10-5. These noise levels in Table 4.10-5 represent the existing noise environment and do not include the future effect of the new roadways. When the effect of the future roadways is summed with the background noise levels based on decibel addition, as shown in Table 4.10-11 (column 4), the ambient levels would increase to 67.6 to 72.6 dBA CNEL, an increase of 0.1 to 0.2 dB. Such an increase in noise is well below the limit of perceptibility for humans, and so the project's traffic on the new roadways would not exacerbate existing noise in the project area. Thus, it is not necessary to evaluate the effect of ambient noise levels on the project's proposed noise-sensitive land uses.

## Operation

### Stationary Equipment

The new buildings at the project site would include heating, ventilation, and air-conditioning (HVAC) systems. HVAC units would be installed either on the building roofs or on the ground. A diesel-powered emergency generator, which would be tested for 15 minutes approximately once per month, would be located in PA-1. The project would also include a trash compactor contained within a garage. Because the trash compactor would be enclosed by the garage walls, it is not anticipated to be an appreciable source of noise outside of the garage.

HVAC equipment at the project site would be installed either on the building rooftops<sup>10</sup> or partially on the ground and partially on the roof.<sup>11</sup> HVAC equipment can produce sound levels in the range of about 70 to 75 dBA at 50 feet, depending on the size of the equipment.<sup>12</sup> During some hours of the night and early morning, noise levels in the project area can be from the low to mid 50s decibel range.<sup>13</sup> Under a worst-case scenario, HVAC noise could produce noise of 75 dBA at a distance of 50 feet, which may be outside of the project's property line and a greater than 10 dB increase over ambient levels. HVAC units on the roof would be covered by screens to reduce noise but not fully enclosed. However, the rooftop units on the new buildings would be three to five stories above the surrounding existing buildings and would not likely be located directly at the building perimeter. Therefore, roof-mounted HVAC equipment would not generally have a direct line of sight to adjacent buildings, which would result in reduction of noise, and further reduction would also occur in the vertical distance between the building rooftops and the nearest existing buildings. Units on the ground would be partially screened with landscaping, such as hedges, and noise from the equipment would be reduced. Nevertheless, it could be possible for HVAC equipment to generate noise greater than 10 dBA over ambient levels, and this impact could be significant. Implementation of Mitigation Measure NOI-1b, Operational Noise Control Plan, would ensure that equipment noise would be in compliance with the City's Community Noise Ordinance. Therefore, this impact would be ***less than significant with mitigation***.

The emergency generator would be located near the parking garage at PA-1 and at least 450 feet away from the nearest off-site residence. The generator would make engine idling-type noise while it is being tested; however, the operating noise would not likely be noticeable to any existing sensitive land uses, because there is no direct line-of-sight from the generator to the nearest residences. The generator would be located within the interior of PA-1, and thus the buildings in PA-1 that are adjacent to exterior streets would shield noise from the generator, in addition to any shielding that may be outfitted on or around the generator itself. Additionally, any noise would be substantially reduced, by about 20 dB,<sup>14</sup> over the distance of 450 feet to the nearest off-site residence. Therefore, this impact would be ***less than significant***.

On-site residences would be exposed to the generator noise as well and would be located much closer to the generator than 450 feet. The impact on new, on-site residences is not considered substantial, however, because the generator would be tested for a brief period of time, 15 minutes,

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<sup>10</sup> HVAC systems at PA-1, 2, 3, 4, and 9 would be roof mounted.

<sup>11</sup> HVAC systems at PA-5, 6, 7, 8, and 11A would be ground and roof mounted.

<sup>12</sup> Hoover and Keith. 2000. *Noise Control for Buildings, Manufacturing Plants, Equipment, and Products*. Houston, TX.

<sup>13</sup> Refer to **Appendix 4.10** for the full noise measurement dataset.

<sup>14</sup> This attenuation value is based on geometric attenuation of 6 dB per doubling of distance for point sources.

once per month. This interval of testing would not substantially increase the ambient noise level in the area. This conclusion is in accordance with the outcome of the *CBIA v. BAAQMD* case, which determined that it is only necessary to evaluate the environmental impacts on new project uses if the project would worsen existing noise.

### **Mitigation Measure NOI-1b: Operational Equipment Noise Control Plan**

An Operational Equipment Noise Control Plan shall be prepared prior to issuance of the first City-issued building permit for the proposed development for approval by the Public Works Department and Building Division. The plan shall include a noise analysis for the project that evaluates HVAC and other stationary mechanical equipment with the potential to generate noise levels in excess of ambient noise levels by 10 dB on new residential properties and by 12 dB on new commercial properties.

The analysis shall be prepared by persons qualified in acoustical analysis and/or engineering and demonstrate with reasonable certainty that the operational noise sources associated with the project would not result in a noise level that would be in excess of the Community Noise Ordinance. All recommendations from the acoustical analysis necessary for ensuring that noise sources would meet applicable requirements of the noise ordinance and would not result in 10 dB (for sources on residential properties) or 12 dB (for sources on commercial properties) increases in ambient noise levels shall be incorporated into plans submitted for building permit issuance and building operation.

### **Other Project Uses**

The project would include an outdoor amphitheater that may be used for group gatherings, but the amphitheater would not include any built-in public address or amplification system. In addition, three community parks, very likely including at least one children's play area (i.e. a tot lot), would be constructed. These uses would result in noise generated at the project site, primarily human voices that may have varying degrees of volume. The amphitheater and community parks are, for the most part, located within the interior of the project site, such that any noise generated that could be heard outside the project site would be largely shielded by the project's buildings. Community Park C may have some unobstructed lines-of-sight to existing land uses surrounding the project site, but the distances from this park to the nearest existing sensitive land uses would be at least approximately 300 feet. Over that distance, noise would be reduced by about 16 dB, based on geometric attenuation. Given that noise in the project area is governed primarily by vehicle traffic and trains, any noise from parks or the amphitheater at the project site would not be noticeable from 300 feet away.

On-site residences would be located much closer to the parks and amphitheater than 300 feet, with some residences being adjacent to the parks. While the parks may generate noise that could be audible at new residences at the project site, the effect of this noise is not likely to be substantial. Given that the project site is located in an urban area dominated by traffic, rail, and fire station (i.e., siren) noise, the noise from the parks would not be an appreciable contribution to the existing noise environment. As shown in Table 4.10-5, ambient noise ranges from 67.4 to 72.5 in the project area, which is typical for urban areas. As such, the parks and amphitheater would not cause an increase of more than 10 dB above ambient conditions at the new residences, consistent with the City's Community Noise Ordinance. This impact would be *less than significant*.

## **Impact NOI-2: The project would not generate excessive ground-borne vibration or ground-borne noise levels. (Less than Significant)**

Construction activity is a main cause of vibration effects. The two main concerns associated with construction-generated vibration are structural damage and annoyance. The potential for construction-related vibration impacts depends on the proximity of construction activities to sensitive receptors, how many pieces of construction equipment are operating and the types, and the duration of construction.

In certain instances, land uses in which ground-borne vibration could potentially interfere with operations or equipment, such as research, manufacturing, hospitals, and university research operations, are considered “vibration-sensitive.”<sup>15</sup> The degree of sensitivity depends on the specific equipment that would be affected by the ground-borne vibration. Based on a review of the project area, there is no highly vibration-sensitive equipment located near the project site.

### **Building Damage**

With regard to potential vibration-related damage impacts, the damage threshold for the primary type of building in the project vicinity, older residential buildings, is 0.3 PPV. No pile driving is anticipated for use in project construction. However, it is likely that large ground-disturbing equipment would be necessary for construction of the proposed project. A large bulldozer (the most vibration-intensive equipment likely to be used for project construction) operating near the edge of the project site closest to the nearest residence (80 feet, as noted above in *Existing Land Uses*) could result in vibration levels of less than 0.0171 PPV,<sup>16</sup> per Table 4.10-2. This level of vibration is below the damage threshold for all structures and buildings, as shown in Table 4.10-3. Therefore, vibration impacts related to building damage would be *less than significant*.

### **Annoyance**

Excessive levels of ground-borne vibration of either a regular or an intermittent nature can result in annoyance in people, especially those at residential uses. As shown in Table 4.10-4, a vibration level of 0.04 PPV is considered “distinctly perceptible” for continuous/frequent intermittent sources of vibration (e.g., construction activity). Vibration that is distinctly perceptible at a residential land use is considered excessive and would result in a potentially significant impact related to vibration annoyance.

The nearest residence is approximately 80 feet from the construction areas of the proposed project, as noted above in *Existing Land Uses*. A large bulldozer has the potential to generate vibration levels of less than 0.0171 PPV at a distance of 80 feet, as noted above, which would be above the “barely perceptible” threshold but well below the “distinctly perceptible” threshold (0.04 PPV) defined in Table 4.10-4. Thus, no residential land uses would be exposed to vibration levels in excess of the “distinctly perceptible” threshold, even at the worst-case distance of 80 feet. Most of the time, construction equipment would be operating more than 80 feet from adjacent uses, and vibration would likely be lower than 0.0171 PPV. Therefore, vibration impacts related to annoyance would be *less than significant*.

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<sup>15</sup> Federal Transit Administration. 2006. *Transit Noise and Vibration Impact Assessment*. May. Available: [https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA\\_Noise\\_and\\_Vibration\\_Manual.pdf](https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Noise_and_Vibration_Manual.pdf). Accessed: February 28, 2020.

<sup>16</sup> This is the value generated by a large bulldozer at 75 feet, which would cause slightly more vibration than a bulldozer at 80 feet. Refer to Table 4.10-2 for the vibration levels by equipment.



## Cumulative Impacts

### **Impact C-NOI-1: The project could result in a cumulatively considerable contribution to significant cumulative noise and vibration impacts. (Less than Significant with Mitigation)**

The cumulative geographic context for noise and vibration is the City. The approach to cumulative impacts is described in Section 4, *Environmental Impact Analysis*.

As concluded in the *2040 Union City General Plan Update Environmental Impact Report*<sup>17</sup> (General Plan EIR), buildout of the General Plan would result in significant and unavoidable construction noise for some individual projects. Thus, this would be a significant cumulative impact in some areas at some times in the City. However, noise from construction is highly localized and intermittent and would stop once construction is complete. Implementation of Mitigation Measure NOI-1a, Construction Noise Control Plan, and compliance with the allowable hours of noise-producing construction activity stated in Union City Municipal Code Section 9.40.053 would reduce the project's short-term construction noise such that the activity would be in compliance with the City's Community Noise Ordinance. With implementation of Mitigation Measure NOI-1a, the project's construction noise impact would be less than significant and the project's contribution to cumulative construction noise impacts would be less than cumulatively considerable. Therefore, the cumulative impact would be ***less than significant with mitigation***.

With respect to vibration impacts from construction activity, the General Plan EIR reached a similar conclusion as the conclusion for construction noise (i.e., buildout of the General Plan would cause significant and unavoidable impacts). The General Plan EIR determined that construction vibration could cause disturbance and building damage in some scenarios. As discussed under Impact NOI-2, the project would result in ground-borne vibration that is considered less than "distinctly perceptible," and, like noise, ground-borne vibration is highly localized. Consequently, the project's contribution to cumulative construction vibration impacts would be less than cumulatively considerable. of vibration would not be a substantial contribution to the significant cumulative impact identified in the General Plan EIR. Therefore, the cumulative impact would be ***less than significant***.

The General Plan EIR concluded that buildout of the General Plan would not cause traffic noise levels to increase such that the noise would be perceptible. Based on this conclusion, CEQA does not require an evaluation of the project's contribution to the impact. Nevertheless, the following analysis is required to further demonstrate the conclusions. To evaluate the project's contribution to cumulative traffic noise levels, 2040 traffic volumes provided by the traffic consultant were analyzed to determine the resulting noise increase and the project's contribution to traffic volumes. For currently existing roadways and one future roadway that would be constructed with or without buildout of the project, traffic noise levels are presented in Table 4.10-12.

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<sup>17</sup> Rincon Consultants, Inc. *2040 Union City General Plan Update Environmental Impact Report*. November 2019.

**Table 4.10-12. Cumulative Traffic Noise Levels**

<b>Roadway Segment</b>	<b>2040 No Project (CNEL)</b>	<b>2040 + Project (CNEL)</b>	<b>Increase (dB)</b>	<b>Significant Impact?<sup>a</sup></b>
7 <sup>th</sup> Street Between Decoto Road and Mission Boulevard	64.4	67.1	2.8	No
7 <sup>th</sup> Street Between Decoto Road and Mission Boulevard	68.8	69.4	0.6	No
11 <sup>th</sup> Street Between Decoto Road and Green Street	65.6	65.6	< 0.1	No
Decoto Road Between Mission Boulevard and 11 <sup>th</sup> Street	69.9	70.3	0.4	No
Decoto Road Between 11 <sup>th</sup> Street and Alvarado-Niles Road	69.5	70.1	0.6	No
Alvarado-Niles Road between H Street and Decoto Road	71.3	71.4	< 0.1	No
Alvarado-Niles Road between Decoto Road and Union Square	68.1	68.1	< 0.1	No
East-West Connector between Mission Boulevard and Quarry Lakes Drive <sup>b</sup>	72.6	72.7	0.1	No

Notes:

a. A 3 dB or less change in noise levels traffic would not constitute a significant impact, because such a change in noise is considered just noticeable.

b. This is a future roadway segment that would be constructed by 2040 with or without buildout of the project.

As shown in Table 4.10-12, the maximum increase in the existing plus project scenario relative to the existing scenario is 2.8 dB, which would occur on 7<sup>th</sup> Street between Decoto Road and Mission Boulevard. As noted above, a change of 3 dB is just noticeable, so a change of 2.8 dB would not be noticeable. Consequently, the project would not cause existing traffic noise to increase by a noticeable amount, which is consistent with the conclusion reached in the General Plan EIR. The project's contribution to cumulative traffic noise impacts would be less than cumulatively considerable. Therefore, the cumulative impact would be ***less than significant***.

For project operational noise, the General Plan EIR concluded that on-site operational noise would be less than significant because new development would be constructed in accordance with the applicable policies from the General Plan, which are included in *Regulatory Setting*. Based on the project-level analysis under Impact NOI-1, which determined that operational noise impacts would be less than significant with mitigation, the project would not contribute to nor cause a significant cumulative impact. Implementation of Mitigation Measure NOI-1b, Operational Noise Control Plan, would ensure that the proposed project's equipment noise would be in compliance with the City's Community Noise Ordinance. With implementation of Mitigation Measure NOI-1b, the project's operational noise impact would be less than significant and the project's contribution to cumulative operational noise impacts would be less than cumulatively considerable. Therefore, the cumulative impact would be ***less than significant with mitigation***.

## 4.11 Population and Housing

This section describes the environmental and regulatory setting for population and housing. It also describes impacts on population and housing that would result from implementation of the project and mitigation for significant impacts where feasible and appropriate.

No comments related to population and housing were received in response to the Notice of Preparation (NOP).

### 4.11.1 Existing Conditions

#### 4.11.1.1 Environmental Setting

This section provides a discussion of existing conditions related to population and housing on the project site, in the City of Union City, and in Alameda County (county).

##### Project Site

The project site (assessor's parcel numbers [APNs] 87-21-5-2, 87-21-13-1, 87-21-13-2, 87-23-12, 87-23-10, and 87-23-13-2) is currently occupied by existing and vacant industrial uses, surface parking lots, asphalt or concrete storage lots, a roadway, and railroad spur improvements; and vacant unpaved areas, including agricultural, annual grassland, landscaped, and ruderal areas. There are approximately five to eight employees working at the project site on any given day at APN 87-23-12; there are no employees within any other portions of the project site. There are no existing residents within the project site.

##### Population

In 2018, the population of the City was approximately 73,105,<sup>1,2</sup> and the population of the county was 1,662,730.<sup>3</sup> Between 2018 and 2040 there will be an increase in population in the county amounting to approximately 25.8 percent, growing to 2,092,370. During that same period, the population in the City is projected to increase by approximately 9.2 percent, growing to 79,845. Table 4.11-1 presents the anticipated population and job growth projections for the City and county between 2018 and 2040.

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<sup>1</sup> California Department of Finance (CDOF). 2020. Table 2: E-4 Population Estimates for Cities, Counties, and State 2011-2020 with 2010 Benchmark. May. Available: <http://www.dof.ca.gov/Forecasting/Demographics/Estimates/e-4/2010-20/>. Accessed: June 1, 2020.

<sup>2</sup> The population estimate provided by the California Department of Finance is slightly higher than the population estimate provided in the *2040 Union City General Plan Update Environmental Impact Report*. For purposes of this analysis, the data provided by the California Department of Finance was used to maintain consistency and accuracy.

<sup>3</sup> CDOF. 2019. Table 1: E-2 California County Population Estimates and Components of Change. December. Available: <http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-2/>. Accessed: June 1, 2020.

**Table 4.11-1. Union City and Alameda County Population and Job Growth Projections, 2018–2040**

	2018	2040 <sup>1</sup>	Net Increase	Percent Change
<b>Population<sup>2,3</sup></b>				
Union City	73,105	79,845	6,740	9.2
Alameda County	1,662,730	2,092,370	429,640	25.8
<b>Jobs<sup>4,5</sup></b>				
Union City	19,528	37,333	17,805	91.0
Alameda County	796,952	952,940	155,988	19.6

## Sources:

- 1 Association of Bay Area Governments (ABAG). 2019. *Projections 2040*. Available: <http://projections.planbayarea.org/>. Accessed: March 11, 2020.
- 2 CDOF. 2020. Table 2: E-4 Population Estimates for Cities, Counties, and State 2011-2020 with 2010 Benchmark.
- 3 CDOF. 2019. Table 1: E-2 California County Population Estimates and Components of Change.
- 4 City of Union City. 2019. *2040 Union City General Plan Update, Draft Environmental Impact Report (SCH# 2018102057)*. Available: <http://www.uc2040.com/wp-content/uploads/2019/06/2040-Union-City-General-Plan-Update-Draft-EIR-master.pdf>. Accessed: March 31, 2020.
- 5 U.S. Census Bureau. 2020. *2018 American Community Survey 1-Year Estimate, Table S0802*. Available: [https://data.census.gov/cedsci/table?q=Employment&g=1600000US0681204\\_0500000US06001&tid=ACSST1Y2018.S0802&t=Employment&vintage=2018&hidePreview=true](https://data.census.gov/cedsci/table?q=Employment&g=1600000US0681204_0500000US06001&tid=ACSST1Y2018.S0802&t=Employment&vintage=2018&hidePreview=true). Accessed: June 1, 2020.

Note: The population, projection, and job estimates provided in the *2040 Union City General Plan Update Environmental Impact Report* are slightly different than the population, projections, and job estimates provided by the California Department of Finance, ABAG, and U.S. Census Bureau, respectively. For purposes of this analysis, the data provided by the California Department of Finance ABAG, and U.S. Census Bureau, were used to maintain consistency and accuracy.

## Housing

In 2018, there were 21,501 housing units in the City.<sup>4</sup> Between 2018 and 2040, the City's total number of housing units is expected to increase to 21,865, a net increase of 364, or approximately 1.7 percent.<sup>5</sup> The county had 601,967 housing units in 2018,<sup>6</sup> and is projected to have a 20.1 percent increase, or 723,130 total housing units, in 2040.<sup>7</sup>

In 2018, there were 19,990 households in the City.<sup>8</sup> As shown in Table 4.11-2, the Association of Bay Area Governments (ABAG) projects that the number of households in the City will increase by approximately 2.5 percent between 2015 and 2040. The number of households in the county is projected to increase approximately 25.5 percent between 2015 and 2040.

<sup>4</sup> CDOF. 2020. Table 2: E-5 City/County Population and Housing Estimates (2018). May. Available: <http://www.dof.ca.gov/Forecasting/Demographics/Estimates/e-5/>. Accessed: June 1, 2020.

<sup>5</sup> Association of Bay Area Governments. 2019. *Projections 2040*. Note: The number of projected housing units was calculated by adding the projected number of single-family housing units (16,430) and multi-family housing units (5,435) in 2040.

<sup>6</sup> CDOF. 2020. Table 2: E-5 City/County Population and Housing Estimates (2018). May.

<sup>7</sup> Association of Bay Area Governments. 2019. *Projections 2040*. Note: The number of projected housing units was calculated by adding the projected number of single-family housing units (369,180) and multi-family housing units (353,950) in 2040.

<sup>8</sup> U.S. Census Bureau. 2020. *2018 American Community Survey 1-Year Estimate, Households and Families*. Available: <https://data.census.gov/cedsci/table?q=Households%20and%20Families&g=1600000US0681204&tid=ACSDP1Y2018.DP02&hidePreview=true>. Accessed: June 1, 2020.

**Table 4.11-2. Union City and Alameda County Household Growth Projections, 2015–2040**

Year	City of Union City Households	Percent Change		Alameda County Households	Percent Change	
		Incremental	Cumulative		Incremental	Cumulative
2015	22,280	—	—	585,475	—	—
2020	22,450	0.8	0.8	614,965	5.0	5.0
2025	22,630	0.8	1.6	637,395	3.6	8.9
2030	22,865	1.0	2.6	668,285	4.8	14.1
2035	22,910	0.2	2.8	696,370	4.2	18.9
2040	22,830	-0.3	2.5	734,210	5.4	25.5

Source: Association of Bay Area Governments. 2019. Projections 2040. Available: <http://projections.planbayarea.org/>. Accessed: March 11, 2020.

In 2018, the average household size in the City was 3.55.<sup>9</sup> The average household size is expected to decrease slightly to approximately 3.47 persons per household by 2040.<sup>10</sup> The county had an average household size of approximately 2.84 persons<sup>11</sup> per household in 2018, and is expected to decrease slightly to 2.78 persons per household in 2040.<sup>12</sup>

## Employment

As shown in Table 4.11-1, between 2018 and 2040 there will be an increase in the number of jobs in the county amounting to approximately 19.6 percent, growing from 796,952 to 952,940.<sup>13</sup> During that same period, the number of jobs in the City is projected to increase by approximately 91.0 percent, growing from 19,528 to 37,333.<sup>14</sup> In December 2019, the unemployment rate was 2.5 percent in the county and 2.6 percent in the City.<sup>15</sup>

Approximately three percent of the jobs in the county are located in the City. This trend is projected to slightly increase until 2040. Since 2010, the City has had more employed residents than jobs, and in 2018, the City had a ratio of 0.95 jobs per housing unit.<sup>16</sup> This means that some employees who live in the City work elsewhere and are out-commuting. The county also has more employed residents than jobs. This trend is expected to change by 2040, when the City is projected to have a jobs-housing ratio of 1.50.

<sup>9</sup> CDOF. 2020. *Table 2: E-5 City/County Population and Housing Estimates (2018)*. May.

<sup>10</sup> Association of Bay Area Governments. 2019. *Projections 2040*. Available: <http://projections.planbayarea.org/>. Accessed: March 11, 2020.

<sup>11</sup> CDOF. 2020. *Table 2: E-5 City/County Population and Housing Estimates (2018)*. May.

<sup>12</sup> Association of Bay Area Governments. 2019. *Projections 2040*. Available: <http://projections.planbayarea.org/>. Accessed: March 11, 2020.

<sup>13</sup> Ibid.

<sup>14</sup> City of Union City. 2019. *2040 Union City General Plan Update, Draft Environmental Impact Report (SCH# 2018102057)*. Available: <http://www.uc2040.com/wp-content/uploads/2019/06/2040-Union-City-General-Plan-Update-Draft-EIR-master.pdf>. Accessed: March 31, 2020.

<sup>15</sup> California Employment Development Department. 2019. *Monthly Labor Force for Cities and Census Designated Places (CDP)—Alameda County*. Available: <https://www.labormarketinfo.edd.ca.gov/data/labor-force-and-unemployment-for-cities-and-census-areas.html>. Accessed: March 11, 2020.

<sup>16</sup> City of Union City. 2019. *2040 Union City General Plan Update, Draft Environmental Impact Report (SCH# 2018102057)*. Available: <http://www.uc2040.com/wp-content/uploads/2019/06/2040-Union-City-General-Plan-Update-Draft-EIR-master.pdf>. Accessed: March 31, 2020.

### 4.11.1.2 Regulatory Setting

#### Regional

##### ABAG Regional Housing Needs Allocation

The Regional Housing Needs Allocation (RHNA) process addresses the need for housing in communities throughout the State. To ensure that adequate housing is available for all income groups, the California Department of Housing and Community Development determines the regional need in coordination with ABAG, which is required to distribute the region's share of statewide need to cities and counties within its jurisdiction. The purpose of the RHNA is to allocate a "fair share" of the Bay Area's projected housing need to cities and counties by household income group, categorized as "very low," "low," "moderate," and "above moderate." According to the 2015–2023 RHNA, ABAG determined that Union City's fair share of regional housing need for the current 2015 to 2023 period would be 1,106 units. Approximately 689 of these units would be allocated as affordable housing.<sup>17</sup>

#### Local

##### City of Union City 2040 General Plan

The *City of Union City 2040 General Plan* (General Plan) includes the following goals and policies associated with population and housing:

**Goal ED-1:** Ensure Union City's fiscal solvency by encouraging economic development activities that generate sales tax, property tax, and other revenues that help sustain municipal services.

**Policy ED-1.2: Balance Jobs and Housing.** The City of Union City (City) shall support economic growth that provides high-quality employment opportunities in order to balance Union City's jobs with its housing supply.

**Goal LU-1:** Strategically support infill development and redevelopment to transform Union City into a distinctive community with a dynamic, transit-oriented City center, attractive shopping and entertainment areas, and thriving and innovative work places.

**Policy LU-1.1: Healthy Balance of Land Uses.** The City shall promote and support the development of a healthy balance of residential, commercial, open space, institutional, and industrial businesses within the City.

**Policy LU-1.2: Promote Infill and Enhance Neighborhoods.** The City shall promote infill development and redevelopment of underutilized parcels while maintaining or enhancing the positive qualities of the surrounding neighborhood.

**Policy LU-1.3: Strategic Infill Areas.** The City shall encourage redevelopment and infill in strategic areas such as the Historic Alvarado District, along Union City Boulevard and Mission Boulevard, and at Union Landing and the Greater Station District.

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<sup>17</sup> Association of Bay Area Governments. 2013. *Regional Housing Need Plan—San Francisco Bay Area*. Available: [https://abag.ca.gov/sites/default/files/2015-23\\_rhna\\_plan.pdf](https://abag.ca.gov/sites/default/files/2015-23_rhna_plan.pdf). Accessed: March 12, 2020.

**Goal LU-2:** Provide a land use framework that promote transit-oriented development and walkable communities and reduces reliance on cars.

**Policy LU-2.1: Becoming a More Transit-Oriented City.** The City shall plan for Union City's transition to a community that includes a mix of established lower-density residential neighborhoods and new higher-density mixed-use neighborhoods with access to high-quality transit.

**Policy LU-2.5: Mixed-use and Higher-Density Development around Transportation Nodes.** The City shall support mixed-use development, pedestrian-friendly environments, and high density around the major transportation nodes and corridors.

**Goal LU-3:** Encourage development that integrates a mix of commercial, office and/or residential uses in appropriate areas, enabling residents to live close to businesses and services.

**Policy LU-3.1: Encourage Mixed-Use Development.** The City shall implement a land use pattern that facilitates the development of projects that mix housing, commercial, or employment uses to enable residents to live close to businesses and employment; promote walking, biking, and transit use; and increase opportunities for community gathering and social interaction.

**Goal SA-1:** To continue to transform the Greater Station District into a dynamic, transit-oriented district with a diversity of uses that create a vibrant atmosphere where people live, work, and socialize.

**Policy SA-1.1: Mix of Uses.** The City shall create opportunities for a mix of uses within the Greater Station District, including flex industrial, office, commercial, high-density mixed-income residential, and community uses so that people can live close to transit, work, shopping, and service activities.

**Policy SA-1.2: Transit-Oriented Design of Greater Station District.** The City shall require that development within the Greater Station District use best practices for transit-oriented development, including transit-supportive densities, pedestrian-friendly design with wide sidewalks and lighting, and street and circulation designs that emphasize walking and bicycling and access to transit facilities.

**Goal SA-4:** To transform the Station East area into a vibrant, 21<sup>st</sup>-century employment district that is a center of prosperity and innovation, focused on providing a quality experience for those who live and work in Union City.

### **City of Union City Housing Element**

The City of Union City Housing Element Update 2015–2023 includes plans and policies to address the housing needs of the City. The relevant polices are:

**Goal A:** To provide for a broad range of housing types to meet the needs of all Union City residents.

**Policy HE-A.2:** The City shall encourage residential infill development on vacant and underutilized land that are properly zoned and planned for residential uses within the City limits.

**Policy HE-A.8:** The City shall encourage the development of new mixed-income and mixed-use development projects as a means of increasing the housing supply while promoting diversity and neighborhood vitality.

**Goal B:** To encourage construction and maintenance of affordable housing in Union City.

**Policy HE-B.3:** The City shall ensure, through conditions of approval, that residential units that are required to sell or rent at below-market rates and are included within a housing development are similarly produced simultaneously with market-rate housing.

**Goal C:** To assist Union City households in obtaining and maintaining adequate housing.

**Goal D:** To maintain healthy neighborhoods by improving the condition of the existing housing stock and by ensuring new development is compatible with the existing character and integrity of residential neighborhoods.

**Goal G:** To encourage energy efficiency and appropriate weatherization in all new and existing housing.

**Policy HE-G.3:** The City shall continue to encourage transit-oriented development as a means for creating walkable, transit-friendly communities that reduce reliance on the automobile.

### **Decoto Industrial Park Study Area Specific Plan**

The *Decoto Industrial Park Study Area Specific Plan* (DIPSA Specific Plan) (most recently amended in July 2006) includes the following goals and policies associated with population and housing:

#### **Section III**

**Goal Land Use-1:** Encourage and support timely redevelopment of the DIPSA as an area of high-quality residential, commercial, office, research-and-development, light-industrial, and service commercial industries and uses, with appropriate uses such as transportation links, parks, schools, etc.

**Goal Land Use-2:** Encourage a variety of densities and types of residential uses in the area to help achieve City housing goals, ensure proper relationships to adjoining lands, and support existing and future commercial uses within and near the DIPSA.

**Objective a:** Medium to high density residential uses should be located close to the BART station, and, where necessary, provide a transition from existing or planned lower density residential land uses to new office, light industrial and service commercial areas and/or retail commercial areas.

**Objective c:** Housing development should provide sufficient variety to accommodate different family sizes, including sufficient number of rental and for-sale units for larger families.

**Goal Land Use-3:** Provide, or ensure the provision of, affordable housing in concert with the goals, policies, and standards of the adopted Union City Housing Element and Redevelopment Area requirements.

**Objective a:** All residential development in the DIPSA shall demonstrate conformance with the Union City General Plan Housing Element as well as the housing requirements of the Revised and Restated Redevelopment Plan.

#### **Section IV**

**Goal Land Use-1:** The DIPSA shall be a place of mixed uses, including residential uses of varying densities and designs, both local and regional-serving commercial development, business offices, and special industrial and major transportation facilities. These uses shall be supported by necessary services and facilities, including recreation, school, and open space areas.



**Goal Land Use-2:** All new development within the DIPSA shall be of high quality and integrated with existing and anticipated development so that the area has cohesiveness and its significant land use potential is achieved.

**Goal Land Use-5:** All new residential development, whether single-family detached or multi-family units, should be designed to the highest-quality standards, and the design of units as well as site planning should be oriented to achieve a sense of neighborhood and enhance the place of the development in the greater Union City community.

**Policy Residential-1:** Housing types will vary according to subarea. Multi-family housing should be located in those subareas closest to Bay Area Rapid Transit (BART) and within the station district area. Single-family residential uses should be located farther away from the commercial/business center of the DIPSA. The General Plan identifies the location of single-family and multi-family distribution in the DIPSA.

**Goal Housing-1:** All residential development in the DIPSA shall demonstrate conformance with the Union City General Plan Housing Element as well as the housing requirements of the revised and restated redevelopment plan.

#### **Union City Municipal Code, Chapter 18.33, Affordable Housing**

The purpose of the Union City Municipal Code Affordable Housing Ordinance (Chapter 18.33) is to increase the production of residential units in the City that are affordable to households of very low, low, and moderate income; ensure that affordable units are distributed throughout the City's neighborhoods; enhance the public welfare by ensuring that future residential developments contribute to the attainment of the affordable housing goals set forth in the Housing Element of the General Plan; and facilitate a cooperative effort between the City and the housing development community for the provision of affordable housing to all economic segments of the community. In addition, the code provides general requirements to help address affordable housing within the City, such as requiring all new housing developments consisting of seven or more units to make 15 percent of those units available to, and affordable to, very low-, low-, and moderate-income households, and requiring proportional in-lieu fees for housing developments that are six units or less.

## **4.11.2 Environmental Impacts**

This section contains the impact analysis for the proposed project as it relates to population and housing. The methods used to determine the potential project-related impacts, as well as the thresholds of significance used to conclude whether or not an impact would be significant, are described below. Measures that would mitigate (i.e., avoid, minimize, rectify, eliminate, or compensate for) significant impacts are included within each impact discussion where they have been deemed necessary and appropriate.

### **4.11.2.1 Thresholds of Significance**

California Environmental Quality Act CEQA Guidelines Appendix G (14 California Code of Regulations [CCR] 15000 et seq.) identifies significance criteria to be considered for determining whether a project could have significant impacts on existing population and housing. Would the project:

- Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?
- Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

#### 4.11.2.2 Methods for Analysis

As described in Section 4, *Environmental Impact Analysis*, subsequent to the drafting of this EIR, the applicant indicated that the residential units associated with proposed project would increase by 10, from 964 to 974 units. As described therein, the analysis presented throughout this EIR adequately accounts for the potential environmental impacts of the 974 new residential units.

Criteria from Appendix G of the State CEQA Guidelines were used to determine whether the proposed project would have a significant impact related to population and housing. Impacts related to population and housing were assessed based on consultation with the Union City Economic and Community Development Department staff, and review of applicable documents (e.g., the General Plan and *2040 Union City General Plan Update Environmental Impact Report*<sup>18</sup> [General Plan EIR]), as well as other local planning documents. Identifying the project's impacts on population and housing involves a review of ABAG's *Projections 2040*,<sup>19</sup> data provided by the California Department of Finance and General Plan, then measuring that project's population-growth impact against the data.

#### 4.11.2.3 Issues Not Evaluated Further

##### **Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.**

There are no existing residents within the project site; no people or housing units would be displaced by the proposed project. Thus, because the project would not displace a substantial number of existing people or housing, the proposed project would have **no impact** with regards to necessitating the construction of replacement housing elsewhere. This topic is not addressed further in this EIR.

#### 4.11.2.4 Impacts and Mitigation Measures

##### **Impact POP-1a: The project would not induce substantial unplanned population growth in an area directly (for example, by proposing new homes and businesses). (Less than Significant)**

There are no existing residents within the project site. The proposed project would redevelop approximately 26.5 acres with up to 964 residential units (40 studios, 334 one-bedroom units, 382 two-bedroom units, 128 three-bedroom units, and 80 four-bedroom units). After full buildout, there would be approximately 2,420 residents at the project site.<sup>20</sup> Therefore, the proposed project would result in 964 units and 2,420 residents on the site compared with existing conditions.

<sup>18</sup> Rincon Consultants, Inc. *2040 Union City General Plan Update Environmental Impact Report*. November 2019.

<sup>19</sup> Association of Bay Area Governments. 2019. *Projections 2040*. Available: <http://projections.planbayarea.org/>. Accessed: March 11, 2020.

<sup>20</sup> According to the General Plan EIR, chapter 2, *Project Description*, 2.51 persons are expected to live in each new multi-family residential unit.

Rincon Consultants, Inc. *2040 Union City General Plan Update Environmental Impact Report*. November 2019.  
Mintier Harnish. *Union City General Plan Buildout Methodology Memorandum [draft]*. 2018.

The General Plan and ABAG's *Projections 2040* reflect the trend of continued growth in the City and the county. From 2018 to 2040, ABAG's *Projections 2040* anticipate a population increase in the City amounting to 6,740 new residents, with 429,640 new residents in the county. The net population generated by the project (2,420 net new residents) represents approximately 36 percent of the projected growth in the City and 0.6 percent of the projected growth in the county. Therefore, the project would be within ABAG population projections through 2040. Because it is accounted for in the General Plan and ABAG projections, the growth proposed under the project represents planned growth. Therefore, the project would not induce substantial unplanned growth.

Because the number of housing units and estimated direct population increase associated with the project would be within the planned growth accounted for in the General Plan and ABAG projections, direct impacts from population and housing growth would be ***less than significant***.

**Impact POP-1b: The project would not induce substantial unplanned population growth in an area indirectly (for example, through extension of roads or other infrastructure). (Less than Significant)**

## **Construction**

The proposed project is anticipated to temporarily employ between 10 and 915 employees during construction, resulting in a temporary increase in the number of construction-related job opportunities in the local area. However, the opportunities provided by project construction would most likely not result in construction workers relocating their households to the project vicinity because these jobs would be temporary. It is expected that construction workers would be drawn from the construction labor force already residing in the City and the surrounding communities. However, the construction jobs would be new jobs and would slightly alter the balance of jobs to employed residents in the City. However, this effect would not be permanent and would not change the current ratio of 0.95 job per housing unit. Accordingly, employment opportunities provided during project construction would not generate substantial indirect population growth. Therefore, this impact would be ***less than significant***.

## **Operation**

### **Employment-Related Housing Demand**

Approximately five to eight individuals per day are currently employed on the project site at any given time. During normal operations, after full buildout, the proposed project is anticipated to employ approximately 75 employees, a net increase of 67 to 70 employees. The net increase in jobs generated by the project (up to 70 new jobs) represents approximately 0.4 percent of the projected job growth in the City and 0.04 percent of the projected growth in the county between 2018 and 2040. Although the increase in the number of jobs in the City would be negligible, it would help to balance the number of jobs to residents in the City. In addition, it is reasonable to assume that a number of the future employees would live in the residential units proposed by the project, which would further reduce any indirect growth that may occur as a result of the project. The project would be within the ABAG employment projections through 2040. Because it is accounted for in the General Plan and ABAG projections, the growth proposed under the project represents planned growth. Therefore, the employment-related housing demand generated by the project would not induce substantial indirect unplanned growth. This impact would be ***less than significant***.

## Infrastructure

The proposed project would require the extension of certain utilities (e.g., connections to existing water mains and sewer mains). In addition, five new internal roads are proposed as part of the project. These types of infrastructure improvements often indirectly induce growth in adjacent areas. However, in this instance, the proposed project is an infill project involving redevelopment. As shown in Figure 3-2 in Chapter 3, *Project Description*, the project site is surrounded by a variety of land uses, including industrial uses to the east and south, agricultural uses to the south, mixed-use commercial areas to the southwest, and residential areas on all sides of the site. In addition, the proposed infrastructure would be sized to meet the needs of the proposed project. Furthermore, the new infrastructure and roadways that would be incorporated as part of the proposed project, would ultimately improve pedestrian circulation throughout the project site and surrounding area. Thus, the proposed infrastructure improvements would not lead to unplanned indirect population growth or the need for additional housing beyond what is expected to be generated under full project buildout. This impact would be *less than significant*.

## Cumulative Impacts

### **Impact C-POP-1: The project, in combination with past, present, and reasonably foreseeable future projects, would not result in a significant cumulative impact on population and housing. (Less than Significant)**

The cumulative geographic context for population and housing is the City and county. The approach to cumulative impacts is described in Section 4, *Environmental Impact Analysis*.

The cumulative setting for population and housing is the City and county. The City anticipates that population and employment growth in the City will be consistent with the analysis in the General Plan EIR. The General Plan EIR estimates there will be approximately 84,477 people in the City in 2040, an increase of approximately 11,486 from 2018 levels. As shown in Table 4.11-1, ABAG estimates there will be a population increase of 429,640 in the county between 2018 and 2040. Therefore, the General Plan EIR and ABAG population projections reflect a trend toward continued growth in both the City and the county.

The General Plan EIR found that the City's population projections would exceed ABAG's projection forecasts by approximately 5.5 percent. However, with application of policies that promote infill development or redevelopment, development of underutilized parcels, and housing growth in areas identified as having high growth or redevelopment potential, the General Plan EIR found there would be no significant cumulative impact related to population and housing projections. The cumulative impact would be *less than significant*.

## 4.12 Public Services and Recreation

This section describes the environmental and regulatory setting for public services and recreation. It also describes impacts on public services and recreation that would result from implementation of the project and mitigation for significant impacts where feasible and appropriate.

In response to the Notice of Preparation (NOP), comments were received that identified concerns that increased pedestrian activity within and surrounding the project site during project operation could lead to trespassing into the Union Pacific Railroad (UPRR) right-of-way as well as potential illegal activities such as tagging (graffiti), which could result in an increased need for police services to address these activities. The comments are addressed in the environmental analysis in this section.

### 4.12.1 Existing Conditions

#### 4.12.1.1 Environmental Setting

##### Police Protection

According to the Union City Police Department (UCPD), the department consists of 77 sworn officers, more than 25 civilian staff members, and additional volunteers. The UCPD Support Services and Patrol Divisions provide community safety services throughout the City. The UCPD headquarters is located at 34009 Alvarado-Niles Road, approximately 0.5 mile southeast of the project site.<sup>1</sup>

The UCPD participates in Region II (Alameda, Del Norte, Humboldt, Mendocino, Lake, Sonoma, Napa, Solano, Marin, Contra Costa, San Mateo, Santa Clara, Santa Cruz, San Benito, and Monterey Counties) of the California State Mutual Aid System, with Alameda County acting as the regional coordinator. The California State Mutual Aid System allows inter-jurisdictional police force collaboration for emergency services. In addition, the UCPD is supported by the Alameda County Sheriff's Department, which provides the City with police support services during large events and emergencies. The Alameda County Sheriff's Department consists of 1,500 staff members, approximately 1,000 of whom are sworn officers. Furthermore, the California Highway Patrol provides highway and traffic safety services on State roads in the City, including Interstate 880.<sup>2</sup>

The City of Union City 2040 General Plan (General Plan) bases its police-to-citizen staffing ratio goals off of the average staffing ratio of other cities in Alameda County; in 2017, this average staffing ratio was 2.1 police staff members per 1,000 City residents.<sup>3</sup> The City's current police services staffing-to-population ratio of 1.4 UCPD staff members (1.1 sworn officers and 0.3 civilian staff members)<sup>4,5</sup> per 1,000 residents, based on the City's 2018 population of 73,105,<sup>6</sup> is therefore below

<sup>1</sup> City of Union City. No Date. *Police*. Available <https://www.unioncity.org/197/Police>. Accessed July 2, 2020.

<sup>2</sup> City of Union City. 2019. *Union City 2040 General Plan*. Available: [http://www.uc2040.com/wp-content/uploads/2020/01/UCGPU\\_PD\\_Adopted\\_Reduced.pdf](http://www.uc2040.com/wp-content/uploads/2020/01/UCGPU_PD_Adopted_Reduced.pdf). Accessed: July 2, 2020

<sup>3</sup> Ibid.

<sup>4</sup> Sworn officer service ratio =  $\frac{77 \text{ sworn officers}}{73,105 \text{ residents}} \times 1,000 = 1.1 \text{ officers per } 1,000 \text{ residents}$

<sup>5</sup> Civilian staff service ratio =  $\frac{25 \text{ civilian staff}}{73,105 \text{ residents}} \times 1,000 = 0.3 \text{ civilian staff per } 1,000 \text{ residents}$

<sup>6</sup> California Department of Finance (CDOF). 2020. *Table 2: E-4 Population Estimates for Cities, Counties, and State 2011-2020 with 2010 Benchmark*. May. Available: <http://www.dof.ca.gov/Forecasting/Demographics/Estimates/e-4/2010-20/>. Accessed: June 1, 2020.

this County-based standard. The General Plan also identifies a need to increase police staffing to meet service ratio goals based on increased demands and expectations associated with the City's growing population in accordance with staffing studies.<sup>7</sup>

## Fire Protection

Since 2010, the City has contracted with Alameda County Fire Department (ACFD) for fire services. The total service area of the ACFD covers approximately 508 square miles and is supported by 27 fire stations, 456 personnel, and 100 reserve firefighters. Battalion 7 of the ACFD Fire Prevention Branch now provide fire prevention and protection services, as well as emergency medical response services, throughout the City.<sup>8,9</sup> The fire stations within the City, as well as their proximities to the project site, are listed in Table 4.12-1. Fire Station 33, which serves the project site, is across the street from the project site at 33942 7<sup>th</sup> Street.

In Fiscal Year 2017–2018 (the most recent data), approximately 70 to 80 percent of ACFD's emergency responses throughout its service area were for medical assistance, and ACFD responded to 41,683 calls throughout its service area, 5,350 of which were in the City. Based on the City's 2018 population of 73,105,<sup>10</sup> this equates to approximately one ACFD service call per 13.7 people in the City. The ACFD response time in the City averages 5.9 minutes.<sup>11</sup>

## Schools

The New Haven Unified School District (NHUSD) consists of 14 public schools, serving the cities of Union City and Hayward. Of the public schools in the NHUSD in the City, six are elementary schools, two are middle schools, one is a high school, and two are adult and independent schools. The project site is served by three of these schools, as shown in Table 4.12-2.

In recent years, the NHUSD has been facing slightly declining enrollment numbers. District-wide enrollment has been decreasing from 12,459 enrolled students in the 2014–2015 school year to 11,281 students in the 2018–2019 school year.<sup>12</sup> NHUSD, however, has capacity for approximately 17,160 students.<sup>13</sup> The student generation rate for NHUSD is 0.7 students per single family residence.<sup>14</sup>

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<sup>7</sup> Ibid.

<sup>8</sup> ACFD. 2018. *Department Organization Chart*. Available: [https://www.acgov.org/fire/about/org\\_chart.htm](https://www.acgov.org/fire/about/org_chart.htm). Accessed: July 2, 2020.

<sup>9</sup> ACFD. 2019. *General Information*. Available: <https://www.acgov.org/fire/about/>. Accessed: July 2, 2020.

<sup>10</sup> California Department of Finance (CDOF). 2020. *Table 2: E-4 Population Estimates for Cities, Counties, and State 2011-2020 with 2010 Benchmark*. May. Available: <http://www.dof.ca.gov/Forecasting/Demographics/Estimates/e-4/2010-20/>. Accessed: June 1, 2020.

<sup>11</sup> Center for Public Safety Management. n.d. *Fire Services Analysis Report: Union City, California*. Available: [https://www.unioncity.org/DocumentCenter/View/2864/VI\\_Union\\_City\\_Report-2?bidId=](https://www.unioncity.org/DocumentCenter/View/2864/VI_Union_City_Report-2?bidId=). Accessed: July 2, 2020.

<sup>12</sup> Education Data Partnership. 2020. *New Haven Unified*. Available: <http://www.ed-data.org/district/Alameda/New-Haven-Unified>. Accessed: March 12, 2020.

<sup>13</sup> Douglas Herring & Associates. 2017. *Station District Block 7 Medical/Office Building Project Initial Study/Mitigated Negative Declaration*.

<sup>14</sup> City of Union City. 2019. *2040 Union City General Plan Update Draft Environmental Impact Report*. Prepared by Rincon Consultants. Available at <http://www.uc2040.com/wp-content/uploads/2019/06/2040-Union-City-General-Plan-Update-Draft-EIR-master.pdf>. Accessed May 26, 2020.

**Table 4.12-1. Alameda County Fire Department Stations Serving the City of Union City**

<b>Fire Station</b>	<b>Station Services</b>	<b>Distance (miles) and Direction from Project Site</b>
Fire Station 31 Central Union City 33555 Central Avenue Union City, CA 94587	<ul style="list-style-type: none"> <li>• Three firefighters</li> <li>• Truck 31</li> <li>• One reserve fire engine</li> </ul>	1.2 miles west
Fire Station 32 Alvarado District 31600 Alvarado Boulevard Union City, CA 94587	<ul style="list-style-type: none"> <li>• Three firefighters</li> <li>• Engine 32</li> <li>• One reserve fire engine</li> </ul>	3.2 miles west
Fire Station 33 Decoto District 33942 7 <sup>th</sup> Street Union City, CA 94587	<ul style="list-style-type: none"> <li>• Three firefighters</li> <li>• Two fire engines</li> </ul>	< 0.1 mile north (across the street from the project site)

Source: City of Union City. 2019. Union City 2040 General Plan. Available: [http://www.uc2040.com/wp-content/uploads/2020/01/UCGPU\\_PD\\_Adopted\\_Reduced.pdf](http://www.uc2040.com/wp-content/uploads/2020/01/UCGPU_PD_Adopted_Reduced.pdf). Accessed: March 13, 2020.

**Table 4.12-2. New Haven Unified School District Schools Serving the Project Site**

<b>School</b>	<b>Distance and Direction from Project Site</b>	<b>2018–2019 Enrollment</b>
Guy Emanuele Jr. Elementary School	0.2 mile east	569 students
Cesar Chavez Middle School	1.7 miles west	1,210 students
James Logan High School	0.5 mile west	3,635 students

Source: DataQuest. 2019. 2018–2019 Enrollment by Grade. New Haven Unified Report (01-61242). Available: <https://dq.cde.ca.gov/dataquest/dqcensus/EnrGrdLevels.aspx?cds=0161242&agglevel=district&year=2018-19>. Accessed: February 17, 2020.

## Parks

Thirty parks in the City are managed by the City's Community and Recreation Services Department, as well as additional recreational facilities such as regional parks and school athletic fields that are not managed by the City's Community and Recreation Services Department.<sup>15</sup> Approximately 58 percent of the City's total land area (7,150 total acres, 1,800 of which are publicly accessible) consists of recreational facilities; this value includes recreational facilities not managed by the City's Community and Recreation Services Department (e.g., East Bay Regional Parks District facilities).

Table 4.12-3 lists the recreational facilities within approximately one mile of the project site, excluding facilities associated with school campuses. Currently, the City's parkland ratio is 1.8 acres of parkland per 1,000 residents.<sup>16</sup>

<sup>15</sup> City of Union City. 2019. *Union City 2040 General Plan*. Available: [http://www.uc2040.com/wp-content/uploads/2020/01/UCGPU\\_PD\\_Adopted\\_Reduced.pdf](http://www.uc2040.com/wp-content/uploads/2020/01/UCGPU_PD_Adopted_Reduced.pdf). Accessed: March 13, 2020.

<sup>16</sup> Ibid.

**Table 4.12-3. Recreational Facilities within Approximately One Mile of the Project Site**

<b>Recreational Facility</b>	<b>Distance from Project Site (miles)</b>	<b>Managing Agency</b>
Shorty Garcia Park	< 0.1	Union City Community and Recreation Services Department
Willow Park	0.1	Union City Community and Recreation Services Department
Charles F. Kennedy Community Center Park	0.2	Union City Community and Recreation Services Department
Fred Castro Park	0.3	Union City Community and Recreation Services Department
Decoto Plaza Park	0.4	Union City Community and Recreation Services Department
Seven Hills Park	0.7	Union City Community and Recreation Services Department
Union City Skate Park	0.7	Union City Community and Recreation Services Department
Drigon Dog Park	0.5	Union City Community and Recreation Services Department
Arroyo Park	0.8	Union City Community and Recreation Services Department
California Terrace*	1.0	City of Fremont Recreation Services
Alameda Creek Trail	1.0	East Bay Regional Parks District
Quarry Lakes Regional Recreational Area*	1.2	East Bay Regional Parks District

Source: City of Union City. 2019. Union City 2040 General Plan. Available: [http://www.uc2040.com/wp-content/uploads/2020/01/UCGPU\\_PD\\_Adopted\\_Reduced.pdf](http://www.uc2040.com/wp-content/uploads/2020/01/UCGPU_PD_Adopted_Reduced.pdf). Accessed: March 13, 2020

\* Indicates the recreational facility is in the City of Fremont but within the approximate one-mile radius of the project site.

The City also has four community centers to support community programs and events. These include the Holly Community Center, the Kennedy Community Center, the Ralph & Mary Ruggieri Senior Center, and the Mark Green Sports Center. The Kennedy Community Center is the closest community center to the project site, located approximately 0.3 mile to the southwest, while the Ralph & Mary Ruggieri Senior Center is approximately 0.7 mile southwest of the project site.

## Libraries

The Union City Library, approximately 0.7 mile southwest of the project site, is part of the Alameda County Library system. The Alameda County Library has branches in 12 jurisdictions; the Union City Library also serves the neighboring cities of Fremont, Hayward, and Newark.<sup>17</sup> According to the *Alameda County Library Master Space Plan*, the Alameda County Library system has a facilities space

<sup>17</sup> Union City Library. No Date. *Alameda County Library Facts*. Available at <https://www.aclf2.org/union-city-library>. Accessed: July 2, 2020.



planning target of 0.45 (the threshold level) to 0.55 sf (the target level) per capita.<sup>18</sup> As of 2016, Alameda County Library facilities provided approximately 0.42 sf per capita, which is already below the recommended threshold level of 0.45 sf per capita. To address the deficiency in the library system, the Master Space Plan identified opportunities to improve service at each location within the system, including the Union City Library.

The Union City Library is an approximately 12,000-sf facility with a collection of over 100,000 items in many different languages, as well as a DVD and CD book collection.<sup>19,20</sup> Other services at the library include free internet and wireless access, laptop and iPad borrowing services, access to photocopiers, typewriters, and text enlargers, as well as a meeting room available for use by community groups.<sup>21</sup> As recommended by the Library Master Space Plan, the City is exploring options to expand the existing Union City Library to an approximately 50,000-sf facility. The City currently supports State and local library infrastructure bond measures for the construction of new libraries, which, if approved, would contribute to the library system and help to address the demand for library services in the City.

#### 4.12.1.2 Regulatory Setting

##### State

##### **Senate Bill 50, California Government Code 65995(b), Education Code Section 17620, and the Mitigation Fee Act**

Senate Bill (SB) 50 (funded by bonds sold under Proposition 1A, approved in 1998) limits the power of cities and counties to require mitigation of school facilities impacts as a condition of approving new development and provides instead for a standardized developer fee. SB 50 generally provides for a 50/50 State and local school facilities funding match. SB 50 also provides for three levels of statutory impact fees. The application level depends on whether State funding is available, whether the school district is eligible for State funding, and whether the school district meets certain additional criteria involving bonding capacity, year round school, and the percentage of moveable classrooms in use.

SB 50 amended the California Government Code Section 65995, which contains limitations on Education Code Section 17620, the statute that authorizes school districts to assess development fees within school district boundaries. Government Code Section 65995(b)(3) requires the maximum square footage assessment for development to be increased every two years, according to inflation adjustments. On January 24, 2018, the State Allocation Board approved increasing the allowable amount of statutory school facilities fees (Level I School Fees) to \$3.79 per square foot of assessable space for residential development of 500 square feet or more, and to \$0.61 per square foot of chargeable covered and enclosed space for commercial/industrial development.

Enacted as Assembly Bill (AB) 1600, the Mitigation Fee Act requires a local agency establishing, increasing, or imposing an impact fee as a condition of development to identify the purpose of the fee and the use to which the fee is to be put. The agency must also demonstrate a reasonable relationship between the fee and the purpose for which it is charged, and between the fee and the type of development plan on which it is to be levied. The act came into force on January 1, 1989.

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<sup>18</sup> Alameda County Library. 2016. *Alameda County Library Master Space Plan, Review Draft*. July 2016.

<sup>19</sup> *Ibid.*

<sup>20</sup> Rincon Consultants, Inc. *2040 Union City General Plan Update Environmental Impact Report*. November 2019.

<sup>21</sup> *Ibid.*

## Local

### City of Union City 2040 General Plan

The General Plan includes the following goals and policies associated with public services and recreation:

**Goal HQL-2:** Maintain, expand, and improve Union City's parks and recreation facilities to meet existing and future needs.

**Policy HQL-2.2: Parkland Dedication for Ownership Housing.** The City shall require new residential subdivisions (i.e., ownership housing) to dedicate parkland at a ratio of 3.0 acres per 1,000 new residents or pay an equivalent in-lieu fee to offset the increase in park needs resulting from new residents. Where on-site parkland is dedicated, it shall be improved by the developer and accessible to the general public. The City may use in-lieu fees to purchase land for new parks or to renovate or expand existing parks and recreation facilities.

**Policy HQL-2.3: Park Impact Fees for Rental Housing.** The City shall continue to collect Park Facilities Fees on new multifamily rental housing to offset the increase in park needs resulting from new residents. Park Facilities Fees shall only be used to build new parks.

**Policy HQL-2.17: Support Expansion of Regional Trail System.** The City shall support the expansion of a regional trail system in and around Union City, including the Bay Trail and the Ridge Trail. The City shall work with the appropriate regional agencies to improve access from Union City neighborhoods to these trails by improving existing trails and developing new trail connections, bike lanes, parking, and signage.

**Goal S-2:** Ensure efficient, effective, and coordinated response to natural and manmade disasters.

**Policy S-2.1: Ensure Emergency Access for New Construction.** The City shall not permit new construction in areas where emergency access cannot be adequately ensured.

**Policy PF-10.3: Development Fees.** The City shall require new development to build or fund its fair share of fire protection facilities, personnel, operations, and maintenance that, at a minimum, maintains the above service standards.

**Goal PF-1:** Ensure efficient, effective, and coordinated response to natural and manmade disasters.

**Policy PF-1.1: Ensure Adequate Facilities and Services.** The City shall ensure through the development review process that adequate public facilities and services are available to serve new development when required. The City shall not approve new development where existing facilities are inadequate to support the project unless the applicant can demonstrate that all necessary public facilities (including water service, sewer service, storm drainage, transportation, police and fire protection services) will be installed or adequately financed and maintained (through fees, special taxes, assessments, or other mean).

**Policy PF-1.3: Development Fair Share.** The City shall require, to the extent legally possible, that new development or major modification to existing development pays the fair share cost of providing new public facilities and services and/or the cost for upgrading existing facilities.

**Goal PF-9:** Provide exceptional public safety and crime reduction services to maintain a safe and secure community, and continue to uphold police-community trust, engagement, and collaboration.

**Policy PF-9.1: Police Staffing.** The City shall strive to maintain Police Department staffing levels in line with population growth by using a baseline staffing benchmark based on the average staffing-to-population ratio of cities within Alameda County (sworn officers and civilian support staff).

**Goal PF-10:** Ensure high quality fire and emergency response to prevent injury, loss of life, and property damage.

**Policy PF-10.1: Maintain Agreement with ACFD.** The City shall review and refine the agreement with ACFD, as needed. Levels of service provided under the contract, may be subject to budgetary limitations.

**Policy PF-10.3: Development Fees.** The City shall require new development to build or fund its fair share of fire protection facilities, personnel, operations, and maintenance that, at a minimum, maintains the above service standards.

**Policy PF-10.5: Fire Department Review of Development Projects.** The City shall engage fire personnel in the review of proposed development to identify necessary fire prevention and risk reduction measures.

**Policy PF-10.8: Emergency Medical Services.** The City shall ensure the provision of high-quality emergency medical response services, including paramedics and emergency medical techniques.

**Goal PF-11:** Ensure excellent schools that provide high-quality educational services, foster civic pride, and serve as neighborhood and community centers.

**PF-11.3: Engage NHUSD on Long Range Planning Efforts.** The City shall engage NHUSD in its long-range planning efforts to ensure the adequacy of existing school facilities to serve new development.

**Goal PF-12.3: Support Library Bond Measures.** The City shall support State and local library infrastructure bond measures for the construction of new libraries.

**Goal SA-2:** To transform the Station East area in to a vibrant, 21st century employment district that is a center of prosperity and innovation, focused on providing a quality experience for those who live and work in Union City.

**Policy SA-4.23: Parkland and Public Spaces.** New residential development within the Station East area shall contribute its fair share towards the development of parkland. The City shall consider allowing plazas, civic spaces, and other gathering spaces that contribute to the public realm as a contribution towards meeting parkland requirements. Recreational parkways may also be considered.

**Goal SA-4:** To transform the Station East area into a vibrant, 21st century employment district that is a center of prosperity and innovation, focused on providing a quality experience for those who live and work in Union City.

**Policy SA-4.22: Parkland and Public Spaces.** New residential development within the Station East area shall contribute its fair share towards the development of parkland. The City shall consider allowing plazas, civic spaces, and other gathering spaces that contribute to the public realm as a contribution towards meeting parkland requirements. Recreational pathways may also be considered.

**Goal SA-5:** To provide for a variety of housing opportunities and create additional open space and

**Goal HQL-2:** Maintain, expand, and improve Union City's parks and recreation facilities to meet existing and future needs.

**Policy HQL-2.1: Increase Parkland.** The City shall strive to increase the number and/or size of neighborhood and/or community parks.

**Policy HQL-2.2: Parkland Dedication for Ownership Housing.** The City shall require new residential subdivisions (i.e., ownership housing) to dedicate parkland at a ratio of 3.0 acres per 1,000 new residents or pay an equivalent in-lieu fee to offset the increase in park needs resulting from new residents. Where on-site parkland is dedicated, it shall be improved by the developer and accessible to the general public. The City may use in-lieu fees to purchase land for new parks or to renovate or expand existing parks and recreation facilities.

**Policy HQL-2.3: Park Impact Fees for Rental Housing.** The City shall continue to collect Park Facilities Fees on new multifamily rental housing to offset the increase in park needs resulting from new residents. Park Facilities Fees shall only be used to build new parks.

**Policy HQL-2.4: Acquire New Land for Parks and Recreational Facilities.** The City shall strive to meet growing recreational needs of residents and their neighborhoods through the acquisition of land for the addition of new parks and recreation facilities.

**Policy HQL-2.7: Park and Recreation Master Plan.** The City shall comprehensively update the Parks and Recreation Master Plan to take inventory of existing parks and recreational facilities; evaluate the recreational needs of Union City residents, workers, and visitors; and set priorities for the improvement of existing parks and development of new parks to accommodate the diverse needs of existing and future users.

**Policy HQL-2.8: Creative Approaches to Providing Parks and Open Space.** The City shall encourage creative approaches to expand parks and open space in the City, including the development of plazas, courtyards, pocket parks, parklets, pedestrian promenades, community gardens, rooftop patios, and civic spaces.

**Policy HQL-2.9: School Collaboration to Maximize Access to Recreational Facilities.** The City shall collaborate with the New Haven Unified School District to maximize public access to school recreational facilities and grounds, as appropriate.

**Policy HQL-2.14: Promote Park Stewardship.** The City shall promote pride of ownership in local parks by involving residents and neighborhood groups in park maintenance and improvements, recreation programs, community outreach, and special events.

**Policy HQL-2.16: Collaborate to Expand Regional Parks.** The City shall collaborate with the East Bay Regional Park District, Alameda County Flood Control District, and other regional agencies to expand access to regional parks and open space in and around Union City, promote greater public awareness of regional parkland, and improve access to regional park facilities. Policy

**Policy HQL-2.17: Support Expansion of Regional Trail System.** The City shall support the expansion of a regional trail system in and around Union City, including the Bay Trail and the Ridge Trail. The City shall work with the appropriate regional agencies to improve access from Union City neighborhoods to these trails by improving existing trails, and developing new trail connections, bike lanes, parking, and signage.

### **Decoto Industrial Park Study Area Specific Plan**

The *Decoto Industrial Park Study Area Specific Plan* (DIPSA Specific Plan) (most recently amended in July 2006) includes the following goals and policies associated with public services and recreation:

**General Policy 9:** Public facilities such as schools and parks should be conveniently located to assure convenient access for residents of the DIPSA.

**Financing Policy 3:** Mitigate any impacts of development upon public facilities located throughout the City.

**Policy 3.1** Development in the DIPSA should be responsible for paying any city-wide impact fees that fund city-serving community facilities.

**Policy 3.2** Development within the DIPSA should be responsible for the costs of mitigating adverse impacts on the City's existing infrastructure and capital equipment over and above costs covered by existing impact fees.

**Financing Policy 4:** Provide a basis for "fair share" allocation of costs to benefiting properties and entities.

**Policy 4.1** The full costs of the on-site and off-site public infrastructure and public services required to support development in the Specific Plan should be borne by development within the DIPSA, and from current DIPSA developers/landowners. Costs should be allocated according to the benefit received, except where specific existing City, county, State or other revenue sources are available or financial assistance from the Redevelopment Agency is justified.

### **Union City Municipal Code, Chapter 17.30**

The Union City Municipal Code (Chapter 17.30) describes fees that developers must pay to the City to offset potential development-related impacts on parks and recreational facilities in order to maintain desired parkland service ratios of 3 acres per every additional 1,000 project-generated residents.

### **New Haven Unified School District Resolution No. 050-1516**

Resolution No. 050-1516 establishes school facility fees in accordance with SB 50, discussed above. The resolution requires that developers pay fees to offset potential impacts on the NHUSD at a rate of \$4.60 per square foot of single-family detached, single-family attached, and multi-family unit residential developments. Commercial and industrial developments are subject to a fee of \$0.56 per square foot.<sup>22,23</sup>

<sup>22</sup> New Haven Unified School District. 2016. *Resolution No. 050-1516*. Resolution of the Governing Board of the New Haven Unified School District Establishing School Facility Fees in Accordance with the Provisions of Senate Bill 50 and Assembly Bill 695. Available: <https://1.cdn.edl.io/SJ0HRhouHTZNhxP32h0hoNVVhBprlN7yGcenXisMZmflK3pr.pdf>. Accessed: July 2, 2020.

<sup>23</sup> New Haven Unified School District. n.d. *Public Notices*. Available: [https://www.mynhusd.org/apps/pages/index.jsp?uREC\\_ID=411159&type=d&pREC\\_ID=963406](https://www.mynhusd.org/apps/pages/index.jsp?uREC_ID=411159&type=d&pREC_ID=963406). Accessed: October 26, 2020.

## 4.12.2 Environmental Impacts

This section contains the impact analysis for the proposed project as it relates to public services and recreation. The methods used to determine the potential project-related impacts, as well as the thresholds of significance used to conclude whether or not an impact would be significant, are described below. Measures that would mitigate (i.e., avoid, minimize, rectify, eliminate, or compensate for) significant impacts are included within each impact discussion where they have been deemed necessary and appropriate.

### 4.12.2.1 Thresholds of Significance

California Environmental Quality Act (CEQA) Guidelines Appendix G (14 California Code of Regulations [CCR] 15000 et seq.) identifies significance criteria to be considered for determining whether a project could have significant impacts on existing public services and recreation. Would the project:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:
  - Fire protection,
  - Police protection,
  - Schools,
  - Parks, or
  - Other public facilities?
- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?
- Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

### 4.12.2.2 Methods for Analysis

As described in Section 4, *Environmental Impact Analysis*, subsequent to the drafting of this EIR, the applicant indicated that the residential units associated with proposed project would increase by 10, from 964 to 974 units. As described therein, the analysis presented throughout this EIR adequately accounts for the potential environmental impacts of the 974 new residential units.

Criteria from Appendix G of the State CEQA Guidelines were used to determine whether the proposed project would have a significant impact related to public services and recreation. Potential project-related impacts were analyzed based on their potential to result in either physical degradation of public facilities, or a reduction of public service ratios such that construction of a new public service facility would be required to meet service ratio needs. Future service ratios anticipated under project conditions were compared to goal ratios identified in applicable documents (e.g., the General Plan and *2040 Union City General Plan Update Environmental Impact Report*<sup>24</sup> [General Plan EIR]), as well as other local planning documents, to identify the project's potential to result in impacts.

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<sup>24</sup> Rincon Consultants, Inc. *2040 Union City General Plan Update Environmental Impact Report*. November 2019.

### 4.12.2.3 Impacts and Mitigation Measures

#### **Impact PSR-1: The project would increase the demand for police service or fire protection service but not to such an extent that construction of new or expanded facilities would be required. (Less than Significant)**

As discussed in Section 4.11, *Population and Housing*, there are no existing residents within the project site. The proposed project would redevelop approximately 26.5 acres with up to 964 residential units (40 studios, 334 one-bedroom units, 382 two-bedroom units, 128 three-bedroom units, and 80 four-bedroom units). After full buildout, there would be approximately 2,420 residents at the project site.<sup>25</sup> Therefore, the proposed project would result in 964 units and 2,420 residents on the site compared with existing conditions.

#### **Police Service**

The City's current UCPD police services staffing-to-population ratio of 1.4 (1.1 sworn officers and 0.3 civilian staff members) per 1,000 residents does not meet the staffing goals identified in the General Plan (2.1 UCPD; 1.4 sworn officers and 0.7 civilian staff members) per 1,000 residents. The General Plan also identifies a need to increase police staffing to meet service ratio goals.<sup>26</sup>

The increased local population generated by the proposed project would likely result in a subsequent increase in police service calls to the project site compared to existing conditions, potentially resulting in the need for new police facilities. Adherence to Financing Policy 3 from the DIPSA Specific Plan would require developers within the project site to pay city-wide impact fees that would fund City-serving community facilities. Additionally, the General Plan includes goals and policies intended to improve police staffing city-wide to meet the desired service ratios. General Plan Policy PF-9.1 requires that the City strive to maintain Police Department staffing levels in line with population growth by using a baseline staffing benchmark based on the average staffing-to-population ratio of cities within Alameda County (sworn officers and civilian support staff). It is anticipated that the City will continue to strive to achieve its police service ratio goals in accordance with the General Plan, and potential project-related impacts will be offset by required developer fees.

According to the General Plan EIR, a new police station facility would not be required as a result of the proposed project. Therefore, police service impacts of the proposed project would be ***less than significant***.

#### **Fire Protection**

ACFD provides firefighting and emergency response services to the City. The project site will be served by Fire Station 33, which is across the street from the project site at 33942 7<sup>th</sup> Street. The increased local population generated by the proposed project would likely result in a subsequent increase in fire and emergency medical service calls to the project site compared to existing

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<sup>25</sup> According to the General Plan EIR, chapter 2, *Project Description*, 2.51 persons are expected to live in each new multi-family residential unit.

Rincon Consultants, Inc. 2040 Union City General Plan Update Environmental Impact Report. November 2019. Mintier Harnish. *Union City General Plan Buildout Methodology Memorandum [draft]*. 2018.

<sup>26</sup> Ibid.

conditions. However, consistent with General Plan Policy PF-10.2, *Fire Department Resources*, as future buildout occurs under the General Plan, the City and ACFD will continue to evaluate operations and deployment of services to maintain efficient use of resources. In addition, the ACFD includes a Fire Prevention Branch which reviews building, and facility plans through the City's Site Development Review process and building permit process to ensure that new development within the City complies with all applicable federal, State, and local regulations pertaining to fire protection services, such as adequate fire access, fire lows, and hydrants. Furthermore, according to the ACFD, Fire Prevention Branch personnel inspect new and remodeled buildings and facilities to ensure that the structures meet State and local fire codes and standards.

Fire Station 33, the closest station to the project site, currently operates three shifts with a minimum of three people per shift, and if an increase in staffing is needed as a result of buildout under the General Plan, Fire Station 33 can accommodate one additional engine company which would include 6 people and 1 Battalion Chief according to the ACFD. Therefore, it is not anticipated that a new fire station facility would be required as a result of the proposed project. As a result, fire protection impacts of the proposed project would be *less than significant*.

**Impact PSR-2: The project would not substantially increase student enrollment such that new or physically altered facilities would be required. (Less than Significant)**

As discussed in Section 4.11, *Population and Housing*, the proposed project would result in 964 units and 2,420 residents on the site compared with existing conditions. It is reasonably foreseeable that some of these units would support families with children that may attend NHUSD facilities. Using the NHUSD's student generation rate of 0.7 students per household, this would result in a total of up to 675 new students generated at the project site. NHUSD enrollment in the 2018-2019 school year was 11,281 students and the district currently has capacity for 17,160 students; thus, the 675 new students that could be generated by the project would not exceed the district's estimated capacity.<sup>27</sup> Additionally, the project applicant would be required to comply with SB 50, which mandates statutory school facilities fees for residential and commercial developments. Compliance with SB 50 would financially offset project-related impacts on NHUSD capacity and would provide funding for potential future school facility development needs associated with the project-related population increase. Therefore, due to available school capacity and compliance with SB 50, this impact would be *less than significant*.

**Impact PSR-3: The project would increase the use of existing neighborhood and regional parks or other recreational facilities, but would not result in substantial deterioration or physical degradation of such facilities or result in adverse physical environmental effects from development of new recreational facilities. (Less than Significant)**

As discussed in Section 4.11, *Population and Housing*, the proposed project would result in 964 units and 2,420 residents on the site compared with existing conditions, potentially resulting in an increase in the use of existing park and recreational facilities.

The project would include on-site open space to partially offset the increased demand on nearby parks resulting from population increases. Specifically, the proposed project would include a total of approximately 9.83 acres of open space, consisting of 1.83 acres of public parks and a paseo,

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<sup>27</sup> Douglas Herring & Associates. 2017. *Station District Block 7 Medical/Office Building Project Initial Study/Mitigated Negative Declaration*.



1.95 acres of private landscaping, 2.25 acres of semi-private and private open space, 0.96 acres of streetscape landscaping, 1.42 acres of bio-retention areas, and 1.42 acres of retail plazas and promenade.

The General Plan has various goals and policies to ensure adequate open space is provided within the City. Compliance with these General Plan policies, including Policies HQL-2.2 and HQL-2.3 which require developers pay in-lieu fees or dedicate parkland, would help ensure that the project offsets potential impacts to off-site open space areas. Therefore, this impact would be ***less than significant***.

**Impact PSR-4: The project would increase the demand for other public service and community facilities, but not to such an extent that construction of new or expanded facilities would be required. (Less than Significant)**

As discussed in Section 4.11, *Population and Housing*, the proposed project would result in 964 units and 2,420 residents on the site compared with existing conditions. The increased local population generated by the proposed project would likely use existing public service and community facilities within the City, including community centers, the Union City Library, and school spaces that could be used for community activities. In addition, the proposed project would include numerous areas that could serve as community facilities (i.e., areas where people could congregate), including the outdoor amphitheater in Community Park B, the urban plazas in PA 2 and PA 4, and the urban plaza and community room in PA 1. Furthermore, the City currently supports State and local library infrastructure bond measures for the construction of new libraries, which, if approved, would contribute to the library system located in the project area and help to address the demand for library services generated by the project. Thus, substantial degradation to such facilities, resulting in the need for existing facility expansion or new facility construction directly related to proposed project implementation, is not expected.

It is not anticipated that a new public service or community facility would be required as a result of the proposed project. However, in the event that a new facility is needed, construction of such a facility could result in subsequent environmental impacts; the specific impacts of which are not known at this time. It is likely that any new public service or community facilities necessary to serve the project and City would be located and constructed in an urbanized and developed area. For the most part, any potentially adverse physical effects from new public service or community facilities would be similar to those anticipated under the proposed project (e.g., noise; archaeological impacts; air quality impacts, such as dust and other pollutants; and temporary street closures or other vehicular traffic obstructions). Any such new facilities would require separate environmental analysis, and any necessary project-specific mitigation prior to being considered for approval. Therefore, the potential impacts of new public service or community facilities, should new facilities be required as a result of the proposed project, would be similar to those associated with the proposed project and would be analyzed in a separate environmental document. The potential impacts of the proposed project are addressed throughout the EIR. Therefore, public service and community facilities impacts of the proposed project would be ***less than significant***.

## Cumulative Impacts

### **Impact C-PSR-1: The project, in combination with past, present, and reasonably foreseeable future projects, would not result in a significant cumulative impact on public services and recreation. (Less than Significant)**

The cumulative geographic context for public services (i.e., police and fire protection services, public school facilities, recreational facilities, or other public service facilities) is the City. The approach to cumulative impacts is described in Section 4, *Environmental Impact Analysis*.

The General Plan identifies that anticipated population growth could generate a corresponding increase in demand for public services (i.e., police and fire protection services, public school facilities, recreational facilities, or other public service facilities) beyond their existing capacities. Although future development would result in increased demand, the General Plan EIR found there would be no significant cumulative impact related to public services and recreation. Similar to the proposed project, all cumulative projects would be required to pay fees to maintain public service ratios in the City and/or include adequate parkland onsite. Therefore, this impact would be ***less than significant***.

## 4.13 Tribal Cultural Resources

This section describes the environmental and regulatory setting for tribal cultural resources. As defined in California Environmental Quality Act (CEQA) Section 21074, tribal cultural resources are sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are listed or determined to be eligible for listing in a national, State, or local register of historical resources. Based on discussions with Native American tribal representatives in San Francisco, prehistoric archeological resources are presumed to be potential tribal cultural resources. This section also describes impacts on tribal cultural resources that would result from implementation of the project and mitigation for significant impacts where feasible and appropriate.

No comments related to tribal cultural resources were received in response to the Notice of Preparation (NOP).

### 4.13.1 Existing Conditions

#### 4.13.1 Environmental Setting

Information about ethnographic lifeways and the post-contact history of Native Americans who traditionally inhabited the vicinity of the project site is provided in Section 4.3, *Cultural Resources*.

#### 4.13.1.2 Regulatory Setting

##### State

Archaeological, paleontological, and historical sites are protected under to a variety of State policies and regulations, as enumerated under the California Public Resources Code (PRC). Tribal cultural resources, which are recognized as nonrenewable resources, receive additional protection under CEQA.

- PRC Section 5024 requires State agencies to identify and protect State-owned resources that meet the listing criteria of the National Register of Historic Places (NRHP), including significant tribal cultural resources. It further specifically requires the California Department of Transportation to inventory State-owned structures in its rights-of-way. Sections 5024(f) and 5024.5 require State agencies to provide notice to and consult with the State Historic Preservation Officer (SHPO) before altering, transferring, relocating, or demolishing State-owned historical resources that are listed or eligible for listing in the NRHP or registered or eligible for registration as California Historical Landmarks.
- California PRC Sections 5097.9–5097.991 provide protection to Native American historical and cultural resources as well as sacred sites and identify the powers and duties of the Native American Heritage Commission (NAHC). These sections also require notification to descendants of discoveries of Native American human remains and provide for treatment and disposition of human remains and associated grave goods.
- PRC Section 21084.2 outlines the key points of Assembly Bill (AB) 52 (Chapter 532, Statutes of 2014), which establishes a formal consultation process for California Native American tribes as part of CEQA and equates significant impacts on tribal cultural resources with significant environmental impacts.

## Local

### City of Union City 2040 General Plan

The *City of Union City 2040 General Plan* (General Plan) includes the following goals and policies associated with tribal cultural resources:

**Goal RC-4:** To protect, to the extent possible, the City's significant archeological and historical resources.

**Policy RC-4.1: Preserve Public Landmarks.** The City shall encourage the preservation of public landmarks.

**Policy RC-4.2: Support the Preservation and Rehabilitation of Historical Resources.** The City shall support public and private efforts to preserve, rehabilitate, and continue the use of historic structures and sites.

**Policy RC-4.3: Use Appropriate Standards to Evaluate Historical Resources.** The City shall use appropriate federal, State, and local standards in evaluating the significance of historical resources within the City.

**Policy RC-4.4: Incorporate Historical Resources into the Landmark and Historic Preservation Overlay Zone.** The City shall work with property owners to apply the Landmark and Historic Preservation Overlay Zone to properties or buildings of historic significance. The properties or buildings may be those that provide significant examples of architectural styles of the past, are landmarks in the history of architecture, are unique and irreplaceable assets to the City and its neighborhoods, or provide for future generations examples of the physical surroundings in which past generations lived.

**Policy RC-4.5: Support Union City Historical Museum.** The City shall continue to encourage and provide support for the Union City Historical Museum.

**Policy RC-4.6: Protection of Archeological Resources.** The City shall strive to ensure that significant archaeological resources are adequately identified and protected from destruction through avoidance where feasible. In the event that any previously unidentified cultural resources are uncovered during site preparation, excavation, or other construction activity, all such activity shall cease until these resources have been evaluated by a qualified archaeologist (or other qualified specialist as appropriate) and specific measures can be implemented to protect these resources in accordance with Sections 21083.2 and 21084.1 of the California PRC. Where such resources are Native American, the developer shall prepare the assessment in consultation with appropriate Native America tribe(s).

**Policy RC-4.7: Treatment of Remains.** Consistent with California Health and Safety Code Section 7050.5 and California PRC Section 5097.98, if human remains are encountered, no further disturbance shall occur until the county coroner has made the necessary findings as to origin. The remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the coroner determines the remains to be Native American, the NAHC shall be contacted within 24 hours. The NAHC must then immediately identify the "most likely descendant(s)" of receiving notification of the discovery. The most likely descendant(s) shall then make recommendations within 48 hours and engage in consultations concerning the treatment of the remains.

### **Decoto Industrial Park Study Area Specific Plan**

The *Decoto Industrial Park Study Area Specific Plan* (DIPSA Specific Plan) Specific Plan (most recently amended in July 2006) includes the following goals and policies associated with tribal cultural resources:

**Environmental Policy H7:** In the event that subsurface cultural deposits or features are encountered during any development within the DIPSA, work in the immediate vicinity of the find should be halted, a professional archaeologist should be consulted, and an appropriate course of action should be developed which is acceptable to all concerned parties. All such procedures should be conducted in conformance with the cultural resources management requirements of Appendix K of the State CEQA Guidelines.

## **4.13.2 Environmental Impacts**

This section contains the impact analysis for the proposed project as it relates to tribal cultural resources. The methods used to determine the potential project-related impacts, as well as the thresholds of significance used to conclude whether or not an impact would be significant, are described below. Measures that would mitigate (i.e., avoid, minimize, rectify, eliminate, or compensate for) significant impacts are included within each impact discussion where they have been deemed necessary and appropriate.

### **4.13.2.1 Thresholds of Significance**

California Environmental Quality Act (CEQA) Guidelines Appendix G (14 California Code of Regulations [CCR] 15000 et seq.) identifies significance criteria to be considered for determining whether a project could have significant impacts on existing tribal cultural resources. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- Listed or eligible for listing in the California Register of Historical Resources (CRHR) or in a local register of historical resources, as defined in PRC Section 5020.1(k), or
- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1? In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

### **4.13.2.2 Methods for Analysis**

As described in Section 4, *Environmental Impact Analysis*, subsequent to the drafting of this EIR, the applicant indicated that the residential units associated with proposed project would increase by 10, from 964 to 974 units. As described therein, the analysis presented throughout this EIR adequately accounts for the potential environmental impacts of the 974 new residential units.

## Native American Consultation

ICF contacted the NAHC on July 31, 2019, requesting a search of the Sacred Lands File (SLF) and a list of Native American individuals with an affiliation to the geographic region. The NAHC responded on August 8, 2019, stating that a search of the SLF failed to indicate the presence of Native American cultural resources on the project site. In addition, the NAHC provided a list of six individuals who may have knowledge of resources in the area. Letters containing the project description and location were sent to the following individuals on September 19, 2019:

- Monica Arellano, Chairperson – Muwekma Ohlone Indian Tribe of the San Francisco Bay Area
- Tony Cerda, Chairperson – Costanoan Rumsen Carmel Tribe
- Andrew Galvan – The Ohlone Indian Tribe
- Charlene Nijmeh, Chairperson – Muwekma Ohlone Indian Tribe of the San Francisco Bay Area
- Ann Marie Sayers, Chairperson – Indian Canyon Mutsun Band of Costanoan
- Irenne Zwierlein, Chairperson – Amah Mutsun Tribal Band of Mission San Juan Bautista

On October 23, 2019, ICF spoke with Ms. Zwierlein, Ms. Sayers, and Mr. Galvan. Ms. Zwierlein requested that the excavation crew receive sensitivity training and that an archaeologist be present on-site. Ms. Sayers asked who conducted the archaeological survey and if there were recorded resources within vicinity of the project site. ICF confirmed no pedestrian survey was conducted because of the lack of visible ground surface due to the amount of modern development in the project area and that no resources were identified during the records search. On October 1, 2020, a letter was sent to Ms. Zwierlein addressing her concerns regarding project construction, confirming that preconstruction cultural resources sensitivity training would be included as a mitigation measure, and confirming that additional mitigation measures would ensure any inadvertent discoveries are protected. Mr. Galvan had additional questions for an archaeologist. That same day, an ICF archaeologist left a voicemail regarding these additional questions and asked for a call back to discuss. To date, no other responses have been received. The Native American consultation materials are included in **Appendix 4.3-2**.

## Records Search

A review of existing literature at the Northwest Information Center (NWIC) on August 28, 2019, identified 15 studies that were conducted within 0.5 mile of the project site. These studies consisted of reconnaissance and evaluation studies for transportation, telecommunication, restoration, and development projects. Three<sup>1</sup> of the 15 studies were located within or directly adjacent to the project site (S-25018, S-12953, and S-33061); none of the 15 studies recorded any precontact resources within the project area.

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<sup>1</sup> Busby et al. 2001. *Cultural Resources Assessment - McKesson Property, Seventh Street and Decoto Road, Union City (S-25018)*. Prepared for the DeSilva Group, Inc., Dublin, CA; City of Fremont and Union City. 1980. *Section 106 Historic Property Survey Report of the Decoto Road Widening Project, Cities of Fremont and Union City, Alameda County (S-12953)*; and N. Sikes et al. 2006. *Cultural Resources Final Report of Monitoring and Findings for the Qwest Network Construction Project (S-33061)*. Prepared for Consumer Protection and Safety Division of the California Public Utilities Commission.

No previously recorded archaeological resources have been identified within the project site. Two informally recorded precontact resources, a surface lithic concentration and a composite deposit with stone tools, were located within the 0.5-mile buffer, north of the project site (C-1555 & C-1157).<sup>2</sup> Neither of these resources have been formally recorded on Department of Parks and Recreation series 523 forms or evaluated for inclusion in the NRHP or CRHR. However, the presence of a surface-level precontact archaeological resources in the vicinity of the project site heightens the potential for buried archaeological resources of the same nature near the project area. Buried precontact archaeological resources have the potential to be considered tribal cultural resources. The NWIC record search results are included in **Appendix 4.3-2**.

### 4.13.2.3 Impacts and Mitigation Measures

**Impact TCR-1: The project could cause a potentially substantial adverse change in the significance of a tribal cultural resource that is listed or eligible for listing in the CRHR, in a local register of historical resources (as defined in PRC Section 5020.1(k). This also includes tribal cultural resources determined to be significant by the lead agency in its discretion and supported by substantial evidence (as defined in subdivision (c) of Public Resources Code Section 5024.1). (Less than Significant with Mitigation)**

Although no known tribal cultural resources were identified during Native American consultation, the SLF search, or the NWIC records search, the project has the potential to encounter previously undocumented prehistoric archaeological resources. These resources, in turn, have the potential to be tribal cultural resources. Therefore, the potential exists for previously undiscovered tribal cultural resources (as defined in CEQA Section 21074.2) to be encountered during demolition or construction activities associated with the project. Furthermore, buried deposits may be eligible for listing in the CRHR. Therefore, this impact could be significant. However, implementation of Mitigation Measures CUL-2a (Preconstruction Archaeological Sensitivity Training), CUL-2b (Unanticipated Discovery Protocol), and CUL-3 (Handling of Human Remains) (as described in Section 4.3, *Cultural Resources*) would ensure that impacts related to tribal cultural resources are *less than significant with mitigation*.

#### Cumulative

**Impact C-TCR-1: The project could result in a cumulatively considerable contribution to significant cumulative tribal cultural resources impacts. (Less than Significant with Mitigation)**

The cumulative geographic context for tribal cultural resources is the vicinity of the project site. The approach to cumulative impacts is described in Section 4, *Environmental Impact Analysis*.

According to the General Plan EIR and the DIPSA Specific Plan, development associated with each plans' buildout would result in ground disturbances and could therefore result in impacts to potential to be tribal cultural resources. The cumulative projects may require excavation and grading as well as other activities that could affect unknown tribal cultural resources including

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<sup>2</sup> Patron, Ambro, and Belk. 2009. *C-1555*. Informal Resource on file at the Northwest Information Center, Rohnert Park, California; Patron. 2008. *C-1557 (/H)*. Information Resource on file at the Northwest Information Center, Rohnert Park, California.

precontact cultural resources and human remains. Cumulative projects in the project area that would include ground-disturbing activities have the potential to encounter sediments considered moderately sensitive for buried archaeological resources. Thus, cumulative projects have the potential to damage or destroy as-yet undocumented archaeological resources that have the potential to be eligible for listing in the California Register, and which may be considered of traditional importance to Native American tribes, which would be a significant cumulative impact. Implementation of Mitigation Measures CUL-2a (Preconstruction Archaeological Sensitivity Training), CUL-2b (Unanticipated Discovery Protocol), and CUL-3 (Handling of Human Remains) would reduce the project's impact on unknown tribal cultural resources, including precontact cultural resources and human remains, to a less-than-significant level. With implementation of Mitigation Measures CUL-2a, CUL-2b, and CUL-3, the project's contribution to cumulative tribal cultural resources impacts would be less than cumulatively considerable. Therefore, the cumulative impact would be ***less than significant with mitigation***.



## 4.14 Transportation

This section describes the environmental and regulatory setting for transportation. It also describes impacts on transportation that would result from implementation of the project and mitigation for significant impacts where feasible and appropriate. Furthermore, this section evaluates the impacts of the proposed project on vehicle miles traveled (VMT). It also determines if the project would conflict with adopted policies, plans, and programs regarding public transit and bicycle and pedestrian facilities, substantially increase hazards due to a design feature or incompatible uses, or result in inadequate emergency access.

In response to the Notice of Preparation (NOP), a comment letter was received that identified concerns with safety at the at-grade railroad crossings near the project site. The environmental analysis discussion in this section addresses that comment.

In recent months, travel behavior has changed at a global level due to the COVID-19 pandemic. In Union City and the surrounding areas, travel patterns (both amount and mode of trips) have changed significantly since the “shelter-in-place” order was issued on March 17, 2020 and subsequently modified. Unless otherwise noted, the existing conditions presented in this section, such as roadway volumes and transit schedules, are based on data collection or observations prior to the start of the pandemic. The impact analysis presented in this section is generally based on the assumption that long-term travel behavior characteristics would be similar to conditions prior to the start of the pandemic, because, at present, the medium- or long-term effects of the COVID-19 pandemic on travel behavior are uncertain and it would be speculative to estimate any potential long-term or permanent changes.

### 4.14.1 Existing Conditions

#### 4.14.1.1 Environmental Setting

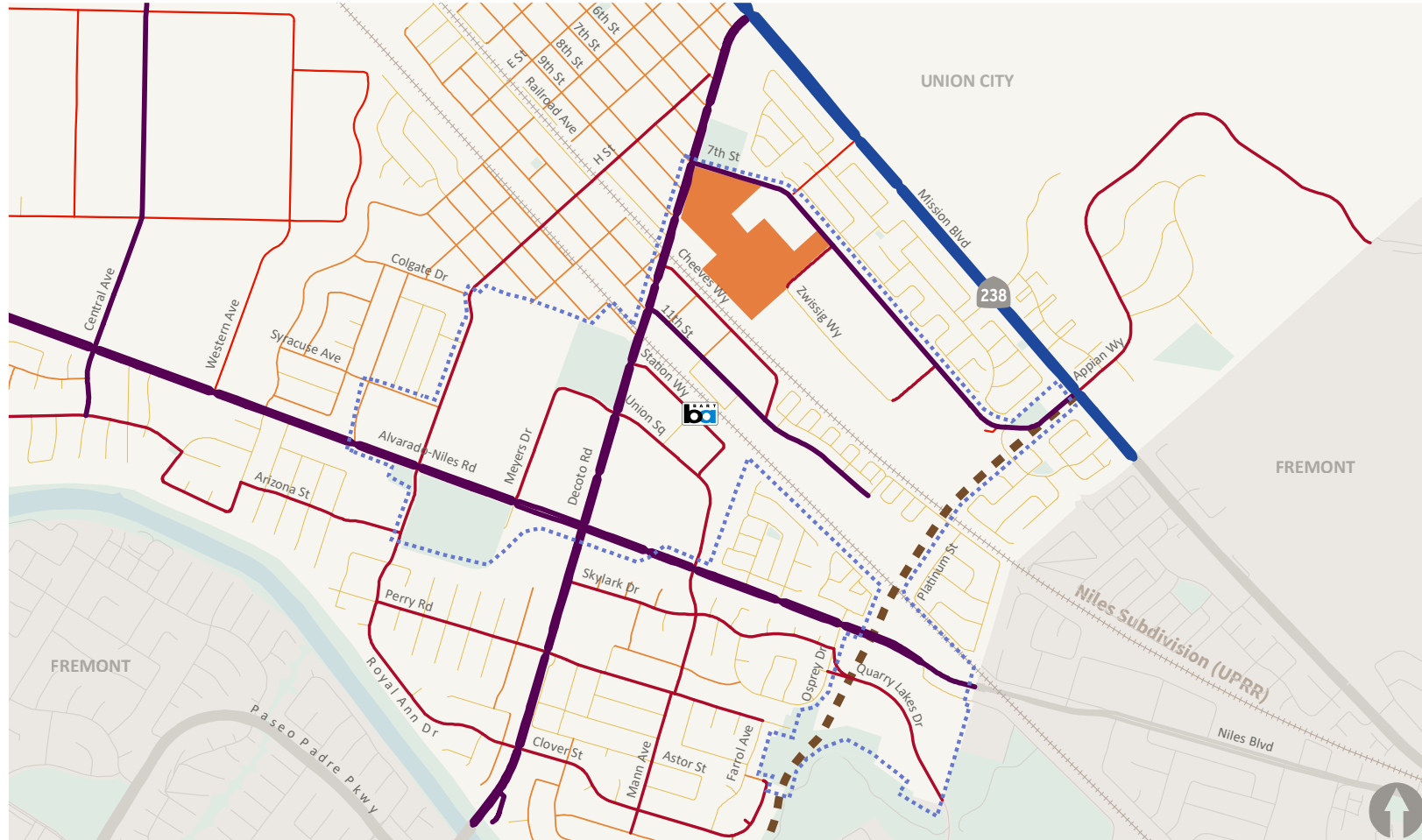
##### Circulation Network

The *City of Union City 2040 General Plan* (General Plan) classifies roadways as freeways, State highways, arterials, primary collectors, industrial roadways, residential collectors, and minor residential streets. The vehicle circulation network is shown in Figure 4.14-1, which is consistent with the circulation network evaluated for the General Plan’s Mobility Element. Descriptions of the streets in the project vicinity are provided below.

Generally, the street network in the project vicinity does not align with a north–south/east–west orientation. However, this analysis assumes that Decoto Road is an east–west roadway and 7<sup>th</sup> Street and Mission Boulevard are north–south roadways.

##### Freeways

As defined in the General Plan, freeways are limited-access, high-speed travel ways and part of the federal highway system. Freeway access is limited to designated interchanges; pedestrians and bicyclists are not permitted on freeways. The only freeway near the project site is listed below.



**Legend**

- State Highway
- Arterial
- Primary Collector
- Industrial Roadway
- Residential Collector
- Minor Residential Street
- Station District Boundary
- Union City BART Station
- Future Quarry Lakes Parkway
- Project Site

Source: Fehr & Peers, 2020.



**Figure 4.14-1  
Existing Circulation Network**

- **Interstate 880 (I-880)**—I-880 is a north–south freeway connecting the San José area to the south with downtown Oakland and the Bay Bridge to the north. The speed limit is 65 miles per hour (mph) near the project site. Near the City, I-880 provides four or five lanes in each direction, including a high-occupancy vehicle lane. The closest access between I-880 and the project site is provided from interchanges at Alvarado-Niles and Decoto Roads, which are both located more than 2 miles away.

### State Highways

State highways are intended to have limited access and moderate to high travel speeds. Limited direct access to industrial, commercial, and high-density residential uses is permitted from State highways, as approved through the City’s development review process. The following State route serves the project site.

- **Mission Boulevard (State Route [SR] 238)**—SR 238 is a four- to six-lane north–south road with a landscaped median. The speed limit is 50 mph south of Decoto Road and 40 mph north of Decoto Road. A sidewalk is provided on the west side of the street, and a Class II bicycle lane is provided in each direction south of Decoto Road. Mission Boulevard is one of the primary parallel routes to I-880. Along Mission Boulevard, Alameda-Contra Costa Transit District (AC Transit) operates bus Lines 99, 232, and 801, and Union City Transit (UC Transit) operates bus Route 4.

### Arterials

Arterials are moderate-speed-through streets that have various configurations. Limited direct access to industrial, commercial, and high-density residential uses are permitted as approved through the City’s development review process. The main arterial streets that serve the project site are listed below.

- **Decoto Road**—Decoto Road is a four-lane east–west road with a median and limited landscaping. The speed limit is 35 mph. A sidewalk is provided on both sides of the street, and a Class II bicycle lane is provided in each direction. Decoto Road connects Mission Boulevard to I-880. West of I-880, it continues as SR 84 over the Dumbarton Bridge. Decoto Road also provides access to the Union City’s Bay Area Rapid Transit (BART) station. Along Decoto Road, AC Transit operates Lines 99, 200, 232, and 801 and Union City Transit operates Routes 2, 4, 8, and 9.
- **Alvarado-Niles Road**—Alvarado-Niles Road is a four-lane north–south road with a landscaped median. The speed limit is 35 mph near the project site. A sidewalk is provided on both sides of the street, and a Class II bicycle lane is provided in each direction, although the interim sidewalk is at street grade between Osprey Drive and Lotus Pond Common. Alvarado-Niles Road extends between Dyer Street to the north and Niles Boulevard, which connects to Mission Boulevard, to the south. Along Alvarado-Niles Road, AC Transit operates Lines 97, and 216 and Union City Transit operates Routes 1, 3, 5, 8, and 9d.
- **7<sup>th</sup> Street**—7<sup>th</sup> Street is primarily a two-lane undivided north–south road with a two-way left-turn lane in some sections and a speed limit of 25 mph, except the segment between Bradford and Zwissig Ways where the speed limit is 35 mph. A sidewalk is generally provided on both sides of the street, except at the section on the east side of the street between Daggett Avenue and City’s Corporation Yard (Corpyard), which has no sidewalk. No bicycle facilities are designated along the road. Union City Transit operates Route 4 along 7<sup>th</sup> Street.

- **11<sup>th</sup> Street**—11<sup>th</sup> Street is a two to four-lane north–south road with a landscaped median. The speed limit is 35 mph in the 4-lane segment south of Decoto Road and 25 mph in the two-lane segment north of Decoto Road. A sidewalk is provided on both sides of the street, and a Class II bicycle lane is provided in each direction south of Decoto Road. No transit routes operate along 11<sup>th</sup> Street at this time although a transit loop road has been installed to serve transit after the BART station has access to the east following the impending construction of the pedestrian at-grade crossing.

### Primary Collectors

Primary collector streets are intended to carry traffic from collector and minor residential streets to an arterial. Primary collector streets are generally used as direct linkages to neighborhood shopping areas. The main primary collector streets that serve the project site are listed below.

- **Cheeves Way**—Cheeves Way is an undivided two-lane, mostly north–south road that extends between Decoto Road and 11<sup>th</sup> Street. The speed limit is 25 mph. There is currently only one section of sidewalk on the west side of the street near the south terminus although as blocks are developed, the sidewalks will be added on the west side of the street. There are no bicycle facilities designated along the road, and no transit routes operate along the road.
- **H Street**—H Street is an undivided two-lane, east–west road that extends between Alvarado-Niles and Decoto Roads. H Street continues east of Alvarado-Niles Road as Royal Ann Drive. The speed limit is 25 mph, and a sidewalk is provided on both sides of the street. H Street does not have any designated bicycle facilities, and no transit routes operate along the road.
- **Meyers Drive**—Meyers Drive is an undivided two-lane road that starts north–south from the Decoto Road/Union Square intersection and ends east–west at Alvarado-Niles Road. The speed limit is 25 mph, and a sidewalk is provided on both sides of the street. Meyers Drive does not provide any designated bicycle facilities, and no transit routes operate along the road.
- **Union Square**—Union Square is an undivided three-lane road with a two-way left-turn lane that starts north–south at Decoto Road and ends east–west at Alvarado-Niles Road. The speed limit is 25 mph. Union Square continues as Mann Avenue south of Alvarado-Niles Road. A sidewalk is provided on both sides of the street, and there is a Class II bicycle lane in each direction. Union Square is a primary access route to the Union City BART station. AC Transit Lines 97, 99, 200, 216, and 232 use Union Square to access the Union City BART station. In addition, Union City Transit Routes 2 and 4 operate along the road.
- **Zwissig Way**—Zwissig Way is an undivided two-lane road that starts east–west on 7<sup>th</sup> Street and ends north–south at Bradford Way. The speed limit is 25 mph, and a sidewalk is provided on both sides of the street. Zwissig Way does not provide any designated bicycle facilities, and no transit routes operate along the road.
- **Bradford Way**—Bradford Way is an undivided two-lane east-west road between 7<sup>th</sup> Street and Zwissig Way. The speed limit is 25 mph, and a sidewalk is provided on both sides of the street. Bradford Way does not provide any designated bicycle facilities, and no transit routes operate along the road.

### Residential Collectors

Residential collector streets are intended to carry moderate volumes of traffic from local streets to primary collectors and arterials. Several residential collector streets are near the project site north of Decoto Road.

## Minor Residential Streets

Minor residential streets are low-capacity streets serving primarily low-density residential uses. The primary barriers to local travel on minor residential streets near the project site are the at-grade Union Pacific Railroad (UPRR) tracks in the Niles and Oakland Subdivisions, which prevent direct travel on most of the streets across the tracks. Minor residential streets are provided in the residential neighborhoods in the project vicinity.

## Vehicle Miles Traveled

One performance measure used to quantify automobile travel is VMT, which refers to the amount of automobile travel attributable to a project as well as the distance traveled. In 2013, Governor Brown signed Senate Bill (SB) 743, which added Public Resources Code Section 21099 to the California Environmental Quality Act (CEQA). Public Resources Code Section 21099 changes the way transportation impacts are analyzed in transit priority areas, and aligns local environmental review methodologies with statewide objectives to reduce greenhouse gas (GHG) emissions, encourage infill mixed-use development in designated priority development areas, reduce regional sprawl, and reduce VMT in California (see Subsection 4.14.2, *Regulatory Framework*, for a more detailed description of SB 743 regulatory requirements).

Increased VMT leads to various direct and indirect impacts on the environment and human health. Among other effects, increased VMT on the roadway network leads to increased emissions of air pollutants, including GHGs, and increased energy consumption. The transportation sector is associated with more GHG emissions than any other sector in California. As documented in the City's *Climate Action Plan (CAP)*,<sup>1</sup> about 30 percent of Union City's GHG emissions are produced by local transportation. Reducing VMT is one of the most effective means for reducing the City's GHG emissions.

VMT is typically an output from travel demand models. Its calculation is based on the estimated number of vehicles multiplied by the distance traveled by each vehicle. This analysis uses total VMT per population where VMT includes all automobile trips with an origin and/or destination within the analyzed geographic area generated on a typical weekday. Population is defined as the total number of residents in the analyzed geographic area.

This analysis uses the Alameda County Transportation Commission (CTC) Countywide Travel Demand Model (Alameda CTC Model) to estimate VMT. The Alameda CTC Model includes data from 2020; therefore, the model approximates existing conditions. Bay Area regional average daily VMT per capita is 22.0; Union City citywide average daily VMT per capita is 18.6 under 2020 conditions.

## Existing Traffic Volumes

### Existing Roadway Average Daily Traffic

Existing roadway average daily traffic (ADT) volumes and vehicle classification counts were collected for a 72-hour period during November 2018 at the seven locations listed in Table 4.14-1. As shown in Table 4.14-1, ADT is between 3,000 and 39,700. Decoto and Alvarado-Niles Roads have the highest ADT volumes. The collected daily traffic counts indicate that the highest volumes generally occur in the morning between 7:00 and 9:00 a.m. and in the evening between 4:00 and 6:00 p.m.

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<sup>1</sup> City of Union City. 2010. *Union City Climate Action Plan*. November. Available: <https://www.unioncity.org/DocumentCenter/View/708/Union-City-Climate-Action-Plan-PDF?bidId=>. Accessed: March 17, 2020.

**Table 4.14-1. Existing Average Daily Traffic Volumes**

Roadway	Count Location	Average Daily Traffic (ADT) <sup>a</sup>	Average Truck %
7 <sup>th</sup> Street	Between fire station (No. 33) and R&S Manufacturing driveway (33955 7 <sup>th</sup> St.)	6,500	10%
7 <sup>th</sup> Street	Between Union City Corpyard and Union City Transit driveways	5,600	7%
11 <sup>th</sup> Street	Between Cheeves Way and Aquamarine Terrace	3,000	3%
Decoto Road	Between 6 <sup>th</sup> and 7 <sup>th</sup> Streets	18,000	5%
Decoto Road	Between Skylark Drive and Skylark Apartments driveway	39,700	4%
Alvarado-Niles Road	Between H Street and Meyers Drive	28,700	4%
Alvarado-Niles Road	Between Union Square and Flagstone Drive	18,900	5%

Source: Fehr &amp; Peers, 2020.

Notes:

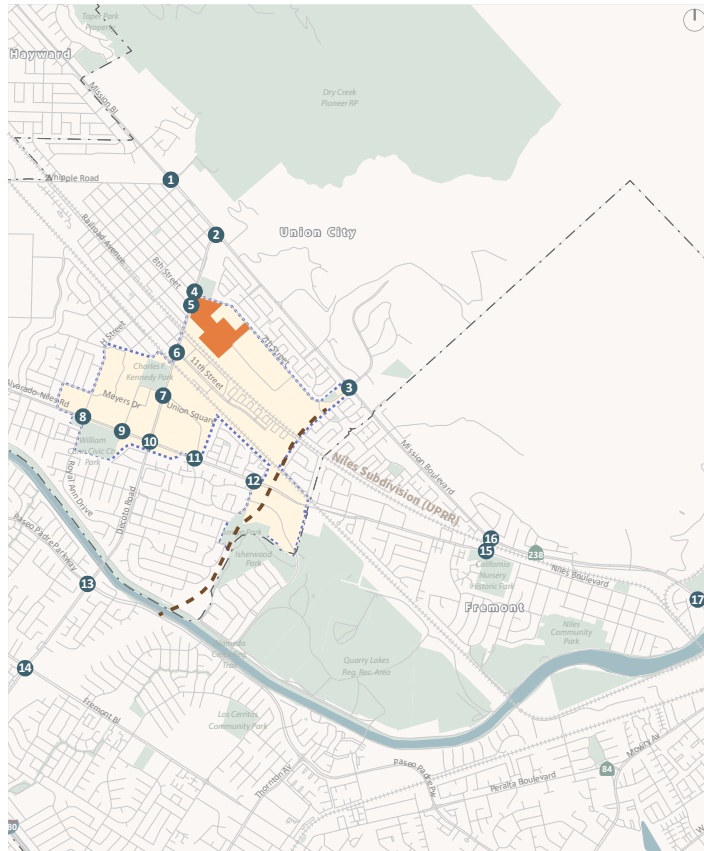
<sup>a</sup> Roadway segment counts were collected between Tuesday, November 6, 2018, and Thursday, November 8, 2018.**Existing Intersection Volumes**

Intersection vehicle turning-movement volumes, bicycle turning-movement volumes, and pedestrian crossing volumes were collected at the following 17 intersections in the project vicinity.

1. Whipple Road/Mission Boulevard/May Road
2. Decoto Road/Mission Boulevard
3. 7<sup>th</sup> Street/Appian Way/Mission Boulevard
4. Decoto Road/7<sup>th</sup> Street
5. Decoto Road/8<sup>th</sup> Street/Zwissig Way
6. Decoto Road/11<sup>th</sup> Street
7. Decoto Road/Meyers Drive/Union Square
8. Royal Ann Drive/H Street/Alvarado-Niles Road
9. Nidus Street/Meyers Drive/Alvarado-Niles Road
10. Alvarado-Niles Road/Decoto Road
11. Mann Avenue/Union Square/Alvarado-Niles Road
12. Osprey Drive/Monterra Terrace/Alvarado-Niles Road
13. Paseo Padre Parkway/Decoto Road
14. Fremont Boulevard/Decoto Road
15. Niles Boulevard/Nursery Avenue
16. Nursery Avenue/Mission Boulevard
17. Niles Boulevard/Niles Canyon Road/Mission Boulevard

Data were collected on Thursday, November 8, 2018, between 7:00 and 9:00 a.m. and between 4:00 and 6:00 p.m. Collection took place while area schools were in regular session, allowing the single hour with the highest traffic volumes during the count periods to be identified at the intersections listed above. The morning peak hour is generally from 7:30 to 8:30 a.m., and the evening peak hour is generally from 5:00 to 6:00 p.m.

Figure 4.14-2 shows peak-hour vehicle turning-movement volumes at these intersections, along with lane configurations and traffic controls at the intersections. Figure 4.14-3 shows peak-hour bicycle and pedestrian intersection volumes.



XX (YY) AM (PM) Peak Hour Traffic Volumes    [Signalized Intersection Symbol] Signalized Intersection    [Stop Sign Symbol] Stop Sign    [Study Intersection Symbol] Study Intersection

[Lane Configuration Symbol] Lane Configuration    [Station District Boundary Symbol] Station District Boundary    [Future Quarry Lakes Parkway Symbol] Future Quarry Lakes Parkway

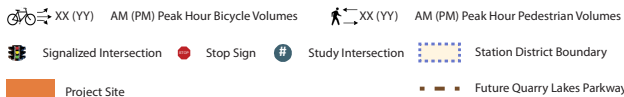
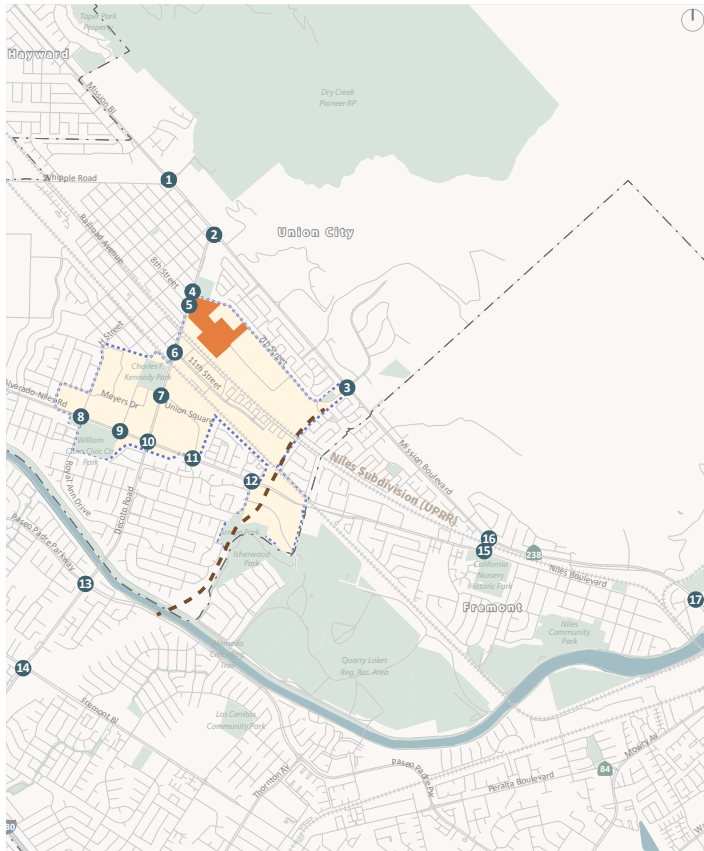
[Project Site Symbol] Project Site

<b>1. May Rd/Whipple Rd/Mission Blvd</b> 	<b>2. Decoto Rd/Mission Blvd</b> 	<b>3. Appian Way/7th St/Mission Blvd</b> 	<b>4. Decoto Rd/7th St</b> 	<b>5. Decoto Rd/8th St</b> 
<b>6. Decoto Rd/11th St</b> 	<b>7. Decoto Rd/Meyers Dr/Union Square</b> 	<b>8. H St/Royal Ann Dr/Alvarado-Niles Rd</b> 	<b>9. Meyers Dr/Nidas St/Alvarado-Niles Rd</b> 	<b>10. Decoto Rd/Alvarado-Niles Rd</b> 
<b>11. Union Square/Mann Ave/Alvarado-Niles Rd</b> 	<b>12. Monterra Terrace/Osprey Dr/Alvarado-Niles Rd</b> 	<b>13. Decoto Rd/Paseo Padre Pkwy</b> 	<b>14. Decoto Rd/Fremont Blvd</b> 	<b>15. Nursery Ave/Niles Blvd</b> 
<b>16. Nursery Ave/Mission Blvd</b> 	<b>17. Niles Canyon Rd/Niles Blvd/Mission Blvd</b> 			

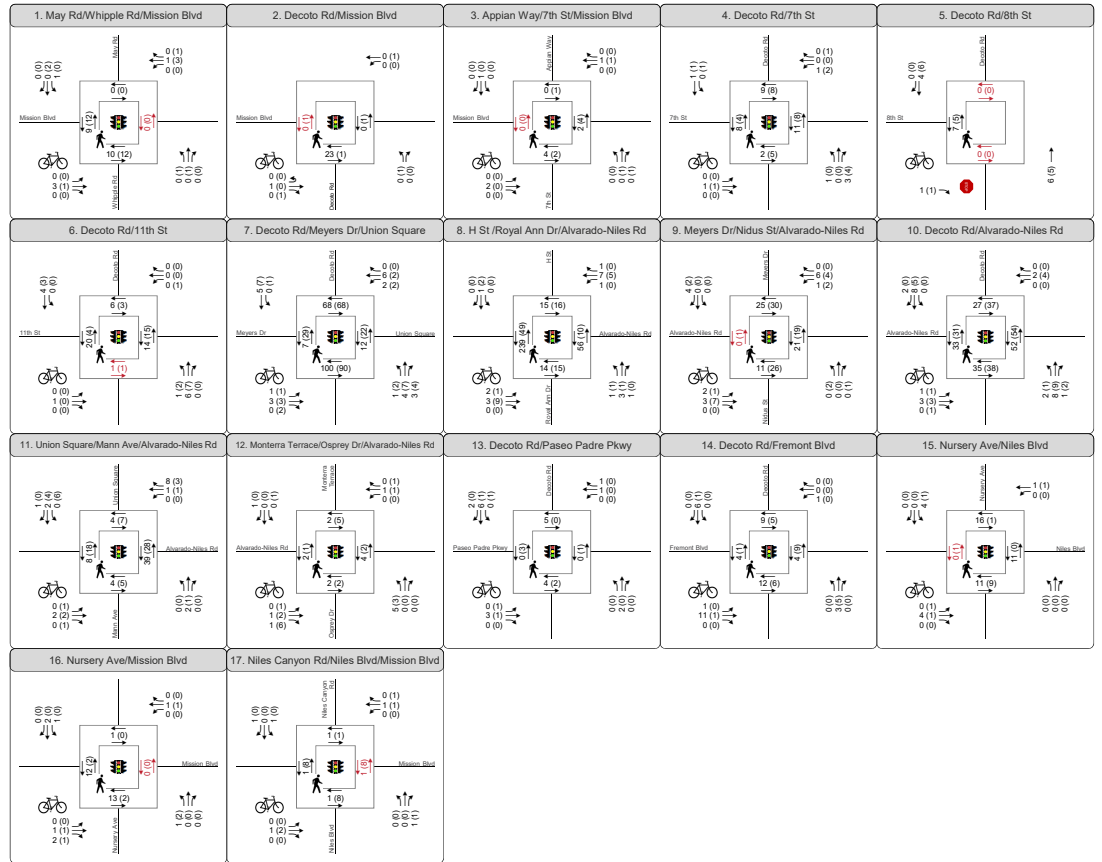
Source: Fehr & Peers, 2020.



Figure 4.14-2  
Existing Conditions Peak Hour  
Intersection Traffic Volumes, Lane Configurations and Traffic Controls



Note: Red indicates locations where either a painted crosswalk is not provided or pedestrian crossing is prohibited.



Source: Fehr & Peers, 2020.



**Figure 4.14-3**  
**Existing Conditions Peak Hour Bicycle and Pedestrian Volumes**



### Existing Public Transit System

Transit service near the project site is provided by Union City Transit, which provides local bus service; AC Transit, which provides regional bus service; Dumbarton Express (DBX), which provides a transbay bus service; and BART, which provides regional rail service.

Figure 4.14-4 lists the existing transit services in the project vicinity. Each transit service is described below.

#### AC Transit

AC Transit is the primary bus service provider in 13 Cities and adjacent unincorporated areas in Alameda and Contra Costa Counties, with transbay service to destinations in San Francisco, San Mateo, and Santa Clara Counties. AC Transit operates six bus lines near the project site, summarized in Table 4.14-2 and shown in Figure 4.14-4.

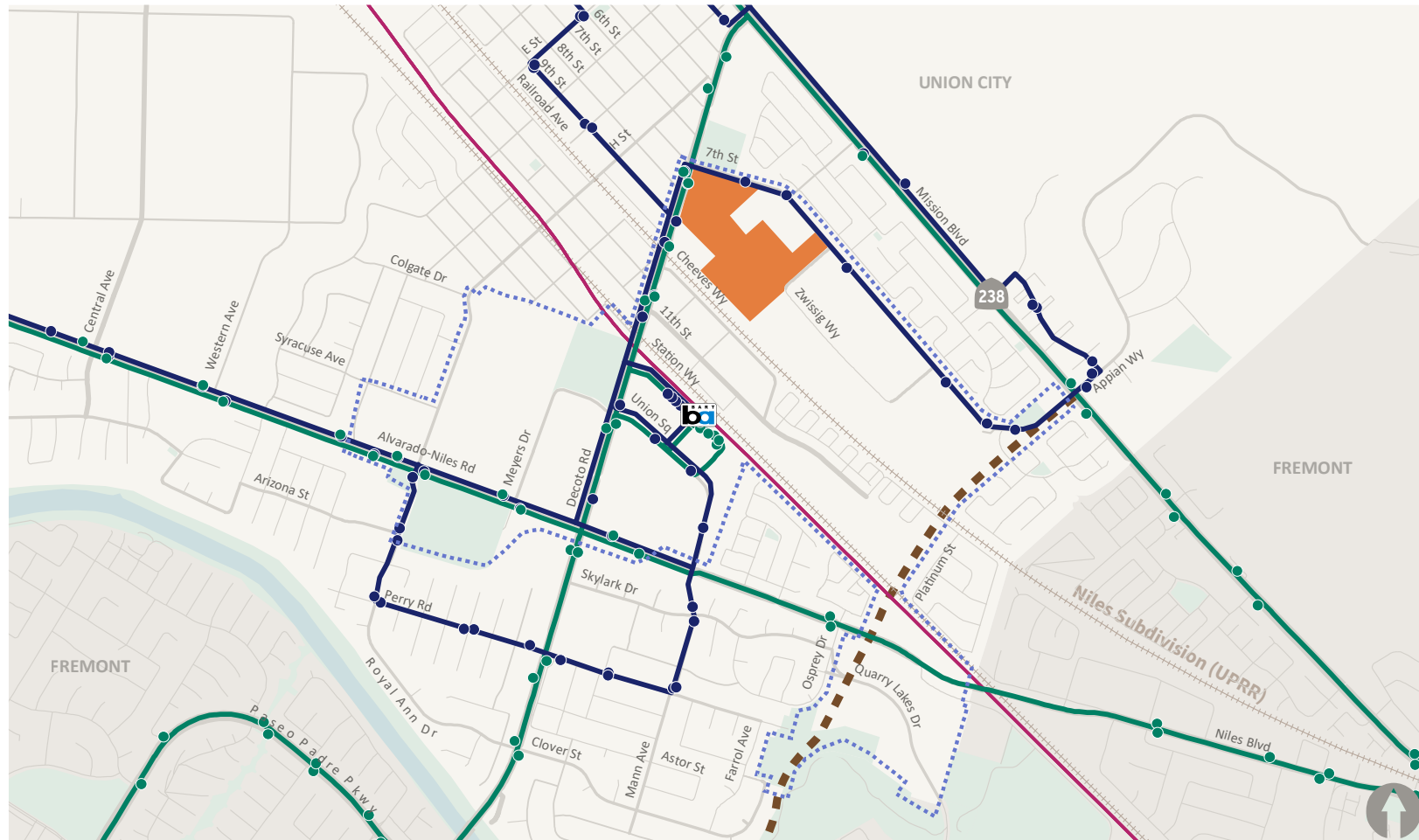
AC Transit also operates the Newark Flex service between the Union City BART station and select destinations in Newark. Flex is an on-demand service model in which transit riders book trips ahead of time and can be picked up or dropped off at selected bus stops. The current Flex model includes scheduled 30-minute departures from the Union City BART station that do not require reservations.

Table 4.14-3 summarizes AC Transit bus ridership data for lines in Union City. The nearest AC Transit bus stops to the project site are on Decoto Road just west of 7<sup>th</sup> Street (in both directions) and just west of Depot Road (in both directions). These stops serve Lines 99, 232, and 801.

**Table 4.14-2. AC Transit Service Summary**

Line	Description	Weekday Hours	Headway	Weekend Hours	Headway
97	Bayfair BART to Union City BART	5:55 a.m.– 11:55 p.m.	15–20 minutes	6:00 a.m.– 11:45 p.m.	30 minutes
99	Hayward BART to Fremont BART	5:00 a.m.– 7:00 p.m.	20 minutes	6:00 a.m.– 12:48 a.m.	30 minutes
200	Fremont BART to Union City BART	6:20 a.m.– 1:04 a.m.	30 minutes	7:29 a.m.– 1:19 a.m.	30 minutes
216	Union City BART to Ohlone Newark	6:10 a.m.– 8:58 p.m.	60 minutes	7:02 a.m.– 7:52 p.m.	60 minutes
232	Fremont BART to Ohlone Newark	5:09 a.m.– 7:58 p.m.	60 minutes	8:28 a.m.– 9:19 p.m.	60 minutes
801	12 <sup>th</sup> Street BART to Fremont BART	12:41 a.m.– 6:17 a.m.	60 minutes	12:41 a.m.– 9:20 a.m.	30 minutes
Flex	On-Demand Service between Union City and Newark	6:00 a.m. – 8:00 p.m.	30 minutes	No Weekend Service	

Source: AC Transit. 2019. AC Transit Map. November. Available: <http://www.actransit.org/maps/>. Accessed: November 1, 2019.



**Legend**

- AC Transit Routes and Stops
- UC Transit Routes and Stops
- Station District Boundary
- BART Tracks
- Future Quarry Lakes Parkway
- Project Site
- Union City BART Station

Source: Fehr & Peers, 2020.

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**Figure 4.14-4  
Existing Transit Network**

**Table 4.14-3. AC Transit Weekday and Weekend Ridership (within Union City)**

Line	Description	Weekday			Weekend Daily
		7:00– 9:00 a.m.	4:00– 6:00 p.m.	Daily	
97	Bayfair BART to Union City BART	38	60	298	147
99	Hayward BART to Fremont BART	10	20	91	53
216	Union City BART to Ohlone Newark	7	7	40	15
232	Fremont BART to Ohlone Newark	7	3	37	19

Source: AC Transit. 2020.October 2018 Ridership. Accessed: October 19, 2020.

### Union City Transit

The City operates Union City Transit, which provides bus service along nine routes. Five Union City Transit routes operate in the project vicinity, as summarized in Table 4.14-4 and as shown in Figure 4.14-4. Table 4.14-5 summarizes Union City Transit ridership in the project vicinity.

**Table 4.14-4. Union City Transit Service Summary**

Route	Description	Weekday Hours	Headway	Weekend Hours	Headway
1	Union City Boulevard/ Dyer Street to Union City BART	4:33 a.m.– 10:20 p.m.	30 minutes	7:45 a.m.– 6:29 p.m.	30 minutes
2	Union City Boulevard/ Whipple Road to Union City BART	5:16 a.m.– 9:03 p.m.	30 minutes	8:28 a.m.– 6:10 p.m.	30 minutes
3	Union Landing to Union City BART	6:34 a.m.– 8:29 p.m.	60 minutes	8:16 a.m.– 6:09 p.m.	60 minutes
4	Union City BART to Union Landing	6:41 a.m.– 8:36 p.m.	60 minutes	8:24 a.m.– 6:14 p.m.	60 minutes
5	Union City Boulevard/ Dyer Street to Union City BART	5:18 a.m.– 9:52 p.m.	30 minutes	8:15 a.m.– 5:59 p.m.	30 minutes

Source: Union City. 2020. Union City Transit. Available: <https://www.unioncity.org/170/Union-City-Transit>. Accessed: October 2, 2020.

**Table 4.14-5. Union City Transit Weekday and Weekend Ridership**

Route	Description	Weekday			Weekend Daily
		7:00– 9:00 a.m.	4:00– 6:00 p.m.	Daily	
1	Alvarado-Niles Road and Central Avenue to Union City BART	64	39	344	95
2	Whipple Road and Central Avenue to Union City BART	18	20	125	27
3	Alvarado-Niles Road and Central Avenue to Union City BART	25	10	93	36
4	Appian Way and Mission Boulevard to Union City BART	11	16	87	31

Source: Union City Transit, October 2018 ridership.

The nearest Union City Transit bus stops to the project site along Decoto Road are just west of 7<sup>th</sup> Street (in both directions), just west of 9<sup>th</sup> Street (eastbound only), and just west of Depot Road (westbound only). Additional stops on 7<sup>th</sup> Street are located adjacent to Fire Station 33 (southbound), just west of Daggett Avenue (northbound only), and just east of Bradford Way (southbound only). These stops serve Route 4.

### Dumbarton Express

DBX is the transbay service provider between the East Bay and the Peninsula. DBX operates two routes, both of which serve the Union City BART station via the Dumbarton Bridge. Table 4.14-6 summarizes the characteristics of the two DBX routes. The nearest DBX bus stop to the project site is on Station Way, adjacent to the Union City BART station.

**Table 4.14-6. Dumbarton Express Service Summary**

Route	Description	Weekday	
		Hours	Headway
DB	Stanford Oval to Union City BART	6:16 a.m.–8:43 p.m.	30 minutes
DB1	3475 Deer Creek Road to Union City BART	6:27 a.m.–8:36 p.m.	17–65 minutes

Source: Dumbarton Express. 2020. Commute with Us. Available: <https://dumbartonexpress.com/>. Accessed: October 2, 2020.

### Bay Area Rapid Transit

BART provides regional light rail service between San Francisco, northern San Mateo County and the East Bay. The BART station most likely to serve the project site is the Union City station, which is about 0.5 mile west of the site. All access to the Union City BART station is currently from the west because the UPRR tracks in the Niles and Oakland Subdivisions are east of the station and limit direct access. Two public roads provide access to the station: Station Way, which intersects Decoto Road and Union Square, and Union Square, which intersects BART Road. Only buses are permitted to enter Station Way from Decoto Road. There are sidewalks along all access roads. All access roads have bicycle lanes in both directions. There are transit stops for AC Transit, Union City Transit, and DBX adjacent to the station entrance. According to data provided by BART,<sup>2</sup> the station has 1,144 vehicle parking spaces and 170 bicycle parking spaces. The two vehicle parking lots are accessed from Union Square.

The Union City BART station is served by two BART lines: Richmond-Warm Springs/South Fremont and Daly City-Warm Springs/South Fremont.<sup>3</sup> As of January 2020, the Richmond-Warm Springs/South Fremont line operates as described below.

- Every 15 minutes from 4:00 a.m. to 7:00 p.m. on weekdays
- Every 20 minutes from 7:00 p.m. to 1:00 a.m. on weekdays
- Every 20 minutes from 6:00 a.m. to 1:00 a.m. on Saturdays

<sup>2</sup> Bay Area Rapid Transit. 2019. Station Parking Data provided by BART. October.

<sup>3</sup> Following the release in March 2020 of the Notice of Preparation for the project, BART service was extended to from Warm Springs/South Fremont to Barryessa/North San Jose. For consistency with the rest of this section, the description of BART service reflects the conditions at the time the Notice of Preparation was released.

- Every 20 minutes from 8:00 a.m. to 1:00 a.m. on Sundays

The Daly City-Warm Springs/South Fremont line operates as described below.

- Every 15 minutes from 5:00 a.m. to 7:00 p.m. on weekdays
- Every 20 minutes from 9:00 a.m. to 7:00 p.m. on Saturdays
- No operation on Sundays

On an average weekday, approximately 4,800 people exit BART at the Union City BART station.<sup>4</sup>

## Existing Bicycle System

The City's *Union City Pedestrian and Bicycle Master Plan*<sup>5</sup> classifies bicycle facilities according to a typology established by the California Department of Transportation (Caltrans).<sup>6</sup> Although the current *Pedestrian and Bicycle Master Plan* includes three facility types, the current Caltrans standards include four types. The Caltrans standards provide the following four distinct types of bikeway facilities.

- **Class I Multi-Use Path**—A completely separate right-of-way designated for exclusive use by bicyclists and pedestrians, with vehicle cross flow minimized.
- **Class II Bicycle Lane**—A restricted portion of the road pavement designated for use by bicyclists, with a striped and/or buffered bicycle lane on the street. Vehicle parking and vehicle/pedestrian cross flow are permitted.
- **Class III Bicycle Route**—A right-of-way designated by signs or pavement markings for shared use with motor vehicles.
- **Class IV Separated Bikeway**—For the exclusive use of bicyclists, with physical vertical separation between the bikeway and through vehicular traffic. The separation may include, but is not limited to, grade separation, flexible posts, inflexible posts, inflexible barriers, or on-street parking. This facility type is included in the current Caltrans *Highway Design Manual* and will be included in the City's updated *Pedestrian and Bicycle Master Plan*.

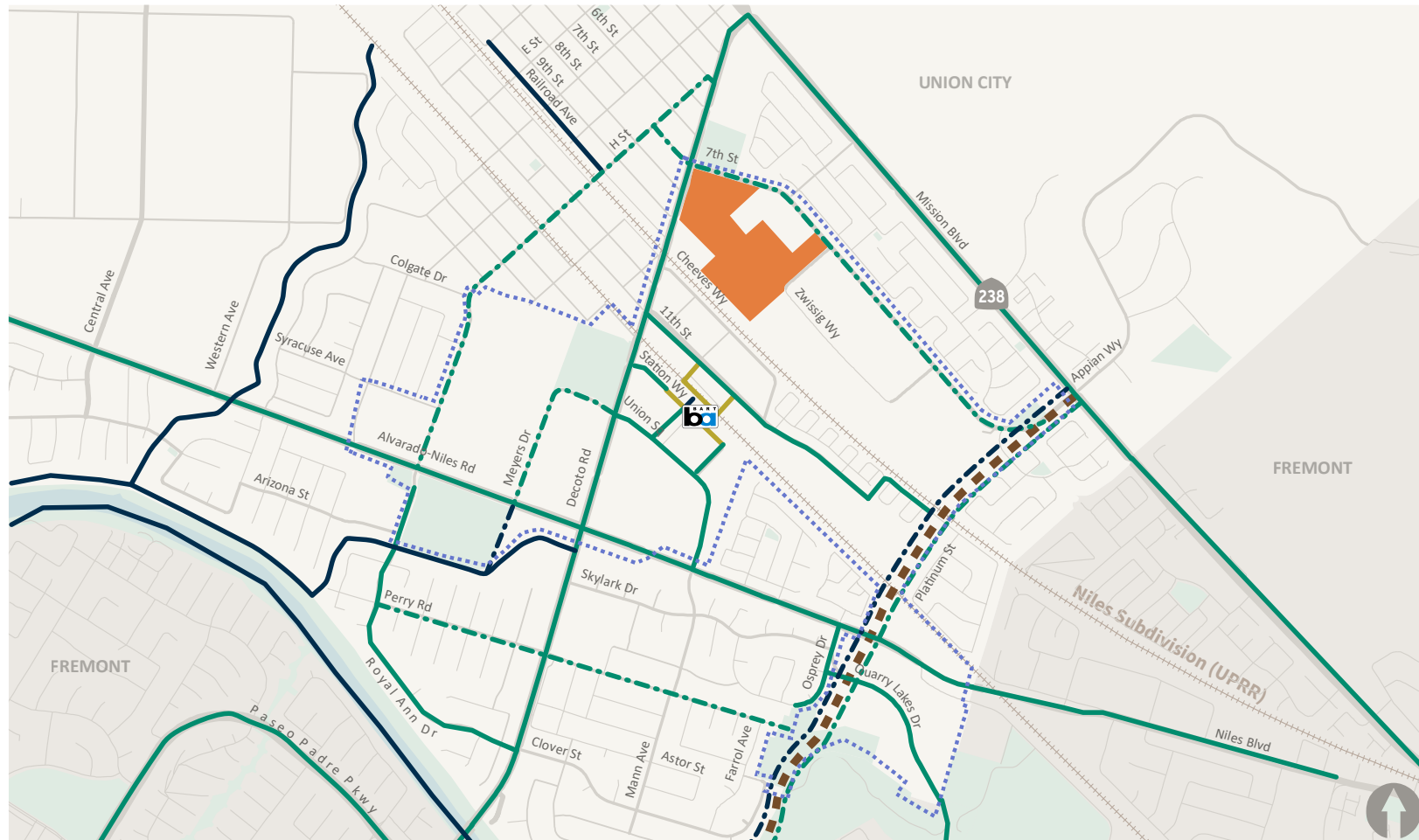
Bicycle access near the project site is characterized by the Class II bicycle lanes along most major roadways, with a few Class I multi-use paths in some areas.

Figure 4.14-5 shows existing and proposed bicycle facilities in the project vicinity.

<sup>4</sup> Bay Area Rapid Transit. 2020. *Ridership Reports*. Available: <https://www.bart.gov/about/reports/ridership>. Data from fiscal year 2019 (July 1, 2018–June 1, 2019). Accessed: October 19, 2020.

<sup>5</sup> City of Union City. 2012. *Union City Pedestrian and Bicycle Master Plan*. January. Available: <https://www.unioncity.org/DocumentCenter/View/1391/Pedestrian-and-Bike-Master-Plan?bidId=>. Accessed: October 2, 2020.

<sup>6</sup> California Department of Transportation. 2020. *Highway Design Manual*, sixth edition. Chapter 1000, Bikeway Planning and Design. July.



**Legend**

- Class I Multi-Use Path
- Class II Bicycle Lane
- Class III Bicycle Route
- - - Proposed Class I Multi-Use Trail
- - - Proposed Class II Bicycle Lane/  
Class III Bicycle Route
- ⋯ Station District Boundary
- ⋯ Union City BART Station
- ⋯ Future Quarry Lakes Parkway
- Project Site

Source: Source: City of Union City Pedestrian and Bicycle Master Plan (January 2012).

**Figure 4.14-5**  
**Existing and Proposed Bicycle Network**

The existing bicycle network in the project vicinity includes the following facilities:

- Class I multi-use paths along the Alameda Creek Trail
- Class I multi-use path parallel to Railroad Avenue between D and H Streets
- Class II bicycle lanes on Mission Boulevard south of Decoto Road
- Class II bicycle lanes on Decoto Road between Mission Boulevard and the I-880 Interchange
- Class II bicycle lanes on Alvarado-Niles Road between just east of the I-880 Interchange and City of Fremont. (The eastbound direction between Osprey Drive and the bridge at City limits with Fremont has Class IV lanes)
- Class II bicycle lanes for the length of Union Square between Decoto Road and Alvarado-Niles Road
- Class II bicycle lanes on 11<sup>th</sup> Street between Decoto Road and Green Street
- Class II bicycle lanes with buffers on Royal Ann Drive just west of Alvarado-Niles Road to Decoto Road
- Class II bicycle lanes on Osprey Drive between Alvarado-Niles Drive and Quarry Lakes Drive
- Class II bicycle lanes on Quarry Lakes Drive between Osprey Drive and Paseo Padre Parkway, with a gap near Roeding Avenue

Figure 4.14-3 shows the peak-hour intersection bicycle turning-movement volumes at intersections near the proposed project. Overall, bicycle volumes are generally low at these intersections. The intersections on Decoto Road at Meyers Drive/Union Square (#7) and Alvarado-Niles Road (#10) have the highest bicycle volumes relative to other study intersections; bicycle volumes are between 25 and 31 bicyclists per hour during the morning and evening peak hours at both intersections.

### **Existing Pedestrian System**

The Union City BART station is located within walking distance of the project site. The two major corridors near the Station are Decoto Road and Alvarado-Niles Road. Both corridors have continuous sidewalks on both sides of the roadway that are generally 6 feet wide. The five-lane cross sections of both corridors create long crossing distances, typically more than 85 feet in length. Crosswalks are typically spaced more than 500 feet apart, and in some areas in the project vicinity, such as on Decoto Road between 9<sup>th</sup> and 11<sup>th</sup> Streets and between Union Square and Alvarado-Niles Road, crosswalks can be spaced more than 1,000 feet apart. This can cause pedestrians to walk several hundred feet out of their way to cross in a marked crosswalk. Relatively few cross streets are found on 7<sup>th</sup> Street with no crosswalks between Decoto Road and Mission Boulevard. On 11<sup>th</sup> Street and Union Square, crosswalks are generally spaced about 500 feet apart.

One notable gap in the pedestrian network is between the Union City BART station and areas to the east because of the UPRR tracks at the Niles and Oakland Subdivisions.

Other major sidewalk gaps near the project site are listed below:

- The east side of 7<sup>th</sup> Street between Daggett Avenue and the Union City Corpyard.
- Both sides of Cheeves Way for most of its length
- The west side of Alvarado-Niles Road between Osprey Drive and Lotus Pond Common
- The east side of Mission Boulevard between O'Connell Lane and May Road
- The west side of Quarry Lakes Drive between Osprey Drive and Roeding Avenue

All intersections shown on Figure 4.14-3 provide marked crosswalks and Americans with Disabilities Act (ADA)- compliant ramps with truncated domes. However, the ramps are generally diagonal rather than directional and less comfortable for users as they enter the crosswalks because diagonal ramps direct users toward the middle of the intersection. Eight out of 17 intersections currently provide marked crosswalks on all approaches; the remaining nine intersections prohibit pedestrian crossings on at least one side of the intersection.

All signalized intersections in the project vicinity include pedestrian signal heads and standard push buttons; however, most intersections provide non-audible push buttons. None of the study intersections provide vibrotactile push buttons. Pedestrian countdown signals are provided at most study intersections in the vicinity of the project, except at the following locations.

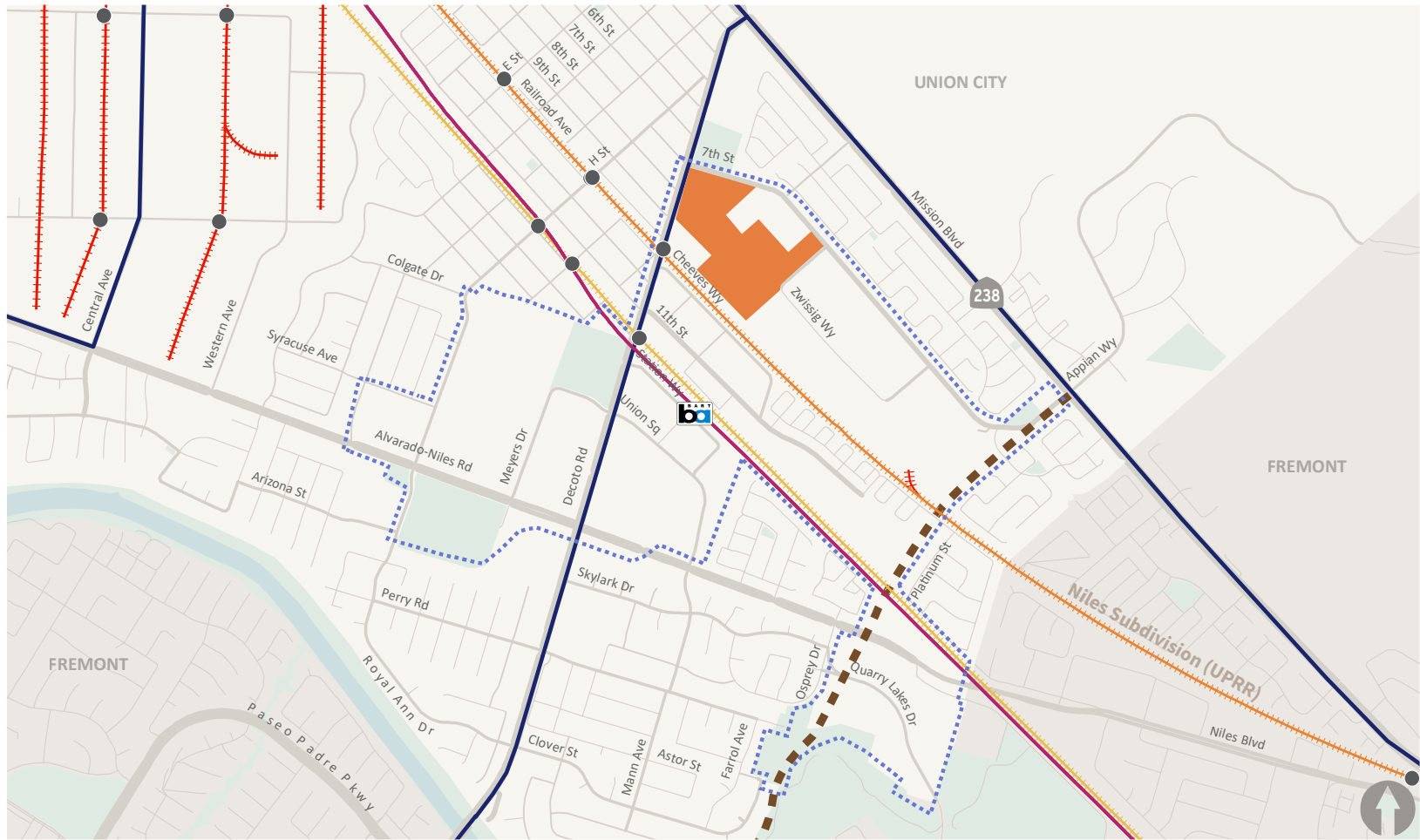
- Decoto Road/Mission Boulevard (intersection #2)
- 7<sup>th</sup> Street/Appian Way/Mission Boulevard (intersection #3)
- Mann Avenue/Union Square/Alvarado-Niles Road (intersection #11)
- Osprey Drive/Monterra Terrace/Alvarado-Niles Road (intersection #12)

Figure 4.14-3 shows the peak-hour intersection pedestrian crosswalk volumes. Overall, pedestrian volumes are higher at intersections near the Union City BART station and James Logan High School and lower at intersections that are farther away.

### **Existing Goods Movement Network**

Figure 4.14-6 shows the goods movement network in the project vicinity, which is composed of rail lines and designated truck routes. The UPRR lines are the primary freight and passenger rail lines near the project site, with two at-grade crossings on Decoto Road. The General Plan Mobility Element identifies Mission Boulevard (SR 238) and Decoto Road as designated truck routes in the project vicinity. Based on data collected in 2018 and summarized in Table 4.14-1, truck percentages vary between 3 and 10 percent for roadways. Furthermore, 7<sup>th</sup> Street has the highest truck percentage, at 10 percent (total vehicle volumes along 7<sup>th</sup> Street are lower than on nearby arterials), and 11<sup>th</sup> Street has the lowest truck percentage, at 3 percent.





**Legend**

- Truck Route
- Niles Subdivision (UPRR)
- Oakland Subdivision (UPRR)
- Spurs
- At-Grade Railroad Crossing
- Union City BART Station
- Station District Boundary
- BART Tracks
- Future Quarry Lakes Parkway
- Project Site

Source: Fehr & Peers, 2020.



**Figure 4.14-6**  
**Existing Goods Movement Network**

### Existing Railroad Pre-emption

Figure 4.14-6 shows the location of the two at-grade railroad crossings on Decoto Road as described below.

- The Niles Subdivision UPRR tracks, which cross Decoto Road just west of the project site and east of Cheeves Way
- The Oakland Subdivision UPRR tracks, which cross Decoto Road west of 11<sup>th</sup> Street and just east of the elevated BART tracks

The City evaluated the existing railroad crossings on Decoto Road in 2016, with results summarized in the *Final Traffic Analysis and Timing Memorandum for Decoto Road/11<sup>th</sup> Street Traffic Analysis and Decoto Road Traffic Signal Timing Study Memorandum*.<sup>7</sup> As part of that study, the consultant team collected 12-hour video recordings from the at-grade UPRR crossing at the Niles Subdivision on Decoto Road from 7:00 a.m. to 7:00 p.m. on Tuesday, March 15, 2016, and on Thursday, March 17, 2016. The March 2016 data showed 13 to 14 train crossings during the 12-hour observation period. The typical crossing duration was less than 1 minute, with a maximum observed duration of 1 minute and 26 seconds. Passenger trains activated a signal pre-emption approximately every hour; freight trains activated a signal pre-emption less frequently. Vehicle queues along Decoto Road extended past the railroad tracks from one to five times per day.

The 2016 study indicates that the railroad crossings at both the Niles and Oakland Subdivisions have signal pre-emption so that adjacent signals clear the tracks prior to a train's arrival. However, the Niles Subdivision crossing has simultaneous pre-emption, which notifies the traffic signal controller and railroad warning devices concurrently of an approaching train; the Oakland Subdivision has advanced pre-emption, which allows a notification to be received by the traffic signal controller prior to activation of the railroad warning devices, providing additional time for queues that extend past the railroad crossing to clear before the gates activate. The City's 2016 study recommended implementing advanced pre-emption at the Niles Subdivision crossing.

On June 18, 2020, a diagnostics field meeting was attended by City, California Public Utilities Commission (CPUC), Integral Communities (project applicant) team, City staff, and UPRR and their railroad consultants to discuss the required improvements to the railroad crossings due to the proposed project. It is expected that physical improvements in the vicinity of both sets of tracks, as well as advanced pre-emption at Niles Subdivision, and pre-emption of the proposed traffic signal at Decoto Road/9<sup>th</sup> Street intersection would be required.

### Planned Transportation Network Changes

Several changes are planned for various transportation modes near the project as described below; these changes include projects planned by the City and are not related to the proposed project; they would be implemented regardless of project implementation. Changes with reasonably foreseeable approval and funding are assumed in the analysis of future-year 2040 conditions. However, not all planned changes have final design plans, full approvals, and/or full funding. Planned changes for transportation modes are summarized below by primary travel category.

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<sup>7</sup> Kimley-Horn. 2016. Final Traffic Analysis and Timing Memorandum for Decoto Road/11<sup>th</sup> Street Traffic Analysis and Decoto Road Traffic Signal Timing Study Memorandum. June 24.

## Planned Roadway Changes

The following roadway changes are planned near the project site:

**Quarry Lakes Parkway**—The Metropolitan Transportation Commission (MTC) 2019 Transportation Improvement Program (TIP)<sup>8</sup> includes the proposed Quarry Lakes Parkway Project (also known as the East–West Connector), a 3-mile circulation and connectivity improvement project that would connect Paseo Padre Parkway to the west with Mission Boulevard to the east. Near the project site, the Quarry Lakes Parkway Project would construct a new four-lane roadway and a new multi-use path that would intersect Mission Boulevard, 7<sup>th</sup> Street, 11<sup>th</sup> Street, Alvarado-Niles Road, Quarry Lakes Drive, and Paseo Padre Parkway. All segments of Quarry Lakes Parkway would include continuous pedestrian sidewalks, buffered on-street bicycle lanes, and a parallel off-street, multi-use path for shared use by bicyclists and pedestrians. The Quarry Lakes Parkway Project is identified in the General Plan’s Mobility Element as a local and regional roadway improvement needed to accommodate future residential and employment growth while enhancing BART access. This analysis assumes completion of the Quarry Lakes Parkway Project by 2040.

**Whipple Road Widening**—Union City anticipates widening Whipple Road from two lanes to four lanes between Central Avenue and Mission Boulevard. This analysis assumes completion of the Whipple Road Widening Project by 2040.

**Mission Boulevard and Decoto Road Multimodal Improvements**—The Alameda CTC is in the process of identifying near-term and long-term multimodal improvements for Mission Boulevard and Decoto Road as part of the East 14<sup>th</sup> Street/Mission Boulevard and Fremont Boulevard Multimodal Corridor Project. The project is currently in the planning phase, and no preferred improvements have been identified. Therefore, these potential improvements are not assumed in the 2040 analysis for this project.

## Planned Transit Changes

**BART Silicon Valley Extension**—Construction is currently underway to expand the BART system in Alameda and Santa Clara Counties. The following stations will be constructed in the near future.

- The infill Irvington station has been approved and is fully funded; it is expected to open by 2026
- The BART extension to downtown San José, the Diridon station, and Santa Clara are currently in the design and engineering phase; construction is expected in 2022, and service is expected by 2030

This analysis assumes completion of the above improvements in the 2040 analysis:

**Union City Intermodal Station**—The General Plan includes goals and policies to add passenger rail to the Intermodal Station located within the Core Station District area, with connections to Amtrak, Altamont Corridor Express, and/or the Dumbarton Rail. However, there are no current plans to expand the Intermodal Station at this time to accommodate passenger rail and this improvement is not assumed as part of this analysis.

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<sup>8</sup> Metropolitan Transportation Commission. 2018. *2019 Transportation Improvement Program*. September Available: <https://mtc.ca.gov/our-work/fund-invest/transportation-improvement-program-tip/2019-tip>. Accessed: October 2, 2020.

### Planned Bicycle and Pedestrian Changes

The Quarry Lakes Parkway Project will provide Class II buffered bicycle lanes in both directions between Mission Boulevard and Paseo Padre Parkway. In addition, the project will implement a Class I multi-use path that connects Mission Boulevard to the existing Quarry Lakes Regional Park trail system.

The General Plan identifies a planned redesign of Decoto Road as a complete street, along with improvements to bicycle and pedestrian infrastructure near the project site. Currently, the City is planning to convert the existing Class II bicycle lanes on Decoto Road to buffered bicycle lanes as part of a repaving project. This analysis assumes no other bicycle or pedestrian infrastructure improvements along Decoto Road would be required, except upgrading the curb ramps to meet current ADA standards, where needed.

The City's *Pedestrian and Bicycle Master Plan* proposes the following bicycle network improvements near the proposed project, as shown in Figure 4.14-5.

- 7<sup>th</sup> Street between H Street and Mission Boulevard (Class II bicycle lanes/Class III bicycle route)
- Perry Road between the Union City Trail and Arroyo Park (Class II bicycle lanes/Class III bicycle route)
- H Street between Alvarado-Niles Road and 6<sup>th</sup> Street (Class II bicycle lanes/Class III bicycle route)
- Meyers Drive between Decoto Road and Alvarado-Niles Road (Class II bicycle lanes/Class III bicycle route) and between Alvarado-Niles Road and adjacent to the Civic Center (Class I multi-use trail)

The City's *Pedestrian and Bicycle Master Plan* also identifies a future Class I multi-use path connecting 7<sup>th</sup> Street to the Union City BART station via an undercrossing and/or overcrossing at the Niles and Oakland Subdivisions. The City has secured an at-grade crossing easement at the Oakland Subdivision tracks to provide non-motorized access on the east side of the Union City BART station. Construction of this project is anticipated to be underway in 2021 and assumed as part of the 2040 conditions for this project. However, neither final design nor full funding is available for a Class I path that crosses the Niles Subdivision tracks; therefore, the Niles Subdivision crossing is not included as part of 2040 conditions in this analysis.

In 2019, the City initiated a process to update the *Bicycle and Pedestrian Master Plan*, which is expected to be complete by mid to late 2021 and may result in a different set of bicycle network improvements. Because these improvements are not known at this time, they are not assumed as part of the 2040 conditions in this analysis.

#### 4.14.1.2 Regulatory Framework

##### State

##### Senate Bill 743

On September 27, 2013, California Governor Jerry Brown signed SB 743 into law and started a process that changed the way transportation impact analysis is conducted as part of CEQA compliance. With these changes, automobile delay, level of service (LOS), and other similar

measures of vehicular capacity or traffic congestion would no longer be the basis for determining significant impacts under CEQA.<sup>9</sup> According to SB 743, these changes are intended to “more appropriately balance the needs of congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of greenhouse gas emissions.”

In December 2018, the Governor’s Office of Planning and Research (OPR) completed an update to the CEQA Guidelines to implement the requirements of SB 743. The guidelines state that VMT must be the metric used to determine significant transportation impacts. The guidelines require all lead agencies in California to use VMT-based thresholds of significance in CEQA documents published after July 2020.

## Regional

### Metropolitan Transportation Commission

Most of the federal, State, and local financing available for transportation projects is allocated at the regional level by MTC, the transportation planning, coordinating, and financing agency for the nine-county Bay Area. Integrated with the Association of Bay Area Government’s (ABAG’s) regional land use plan, the current regional transportation plan, *Plan Bay Area 2040*,<sup>10</sup> was adopted by MTC and ABAG on July 26, 2017. *Plan Bay Area 2040* specifies a detailed set of investments and strategies for the region through 2040 to maintain, manage, and improve the surface transportation system and integrate transportation investments with projected housing and job growth. *Plan Bay Area 2040* specifies how anticipated federal, State, and local transportation funds will be allocated in the Bay Area through the 2017 TIP, which has since been updated to the 2019 TIP as adopted on September 26, 2018.

### Alameda County Transportation Commission

The Alameda CTC is a joint powers authority governed by a 22-member commission that comprises elected offices from each of the 14 Cities in Alameda County, the Alameda County Board of Supervisors, and elected representatives for AC Transit and BART. The Alameda CTC coordinates countywide transportation planning efforts and delivers projects and programs.

Alameda CTC also serves as the county’s congestion management agency. The Alameda CTC administers a Land Use Analysis Program, which is one of the legislatively required elements of the Alameda CTC Congestion Management Program.<sup>11</sup> Alameda CTC reviews local land use plans and projects with the potential to cause countywide or regional impacts. The CTC’s threshold for review is a determination of whether the project would cause a net increase amounting to 100 or more evening peak-hour vehicle trips. The purpose of the Alameda CTC’s review is to assess impacts of individual development actions on the regional transportation system and ensure that significant impacts are appropriately mitigated. Alameda CTC guidelines state that impacts on all modes should be considered, as follows.

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<sup>9</sup> Governor’s Office of Planning and Research. 2020. SB 743 Frequently Asked Questions. Available: <https://opr.ca.gov/ceqa/updates/sb-743/faq.html#general-plans-with-los>. Accessed: October 28, 2020.

<sup>10</sup> Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG). 2017. *Plan Bay Area 2040 Final Plan*. July. Available: <http://2040.planbayarea.org/>. Accessed: October 2, 2020.

<sup>11</sup> Alameda County Transportation Commission. 2019. *Congestion Management Program*. September. Available: [https://www.alamedactc.org/wp-content/uploads/2019/11/2019\\_Alameda\\_County\\_CMP\\_FINAL.pdf](https://www.alamedactc.org/wp-content/uploads/2019/11/2019_Alameda_County_CMP_FINAL.pdf). Accessed: October 2, 2020.

- **Transit**—Effects of vehicle traffic on mixed-flow transit operations, transit capacity, transit access/egress, the need for future transit service, consistency with adopted plans, and circulation element needs.
- **Bicycles**—Effects of vehicle traffic on bicyclist conditions, site development and roadway improvements, and consistency with adopted plans.
- **Pedestrians**—Effects of vehicle traffic on pedestrian conditions, site development and roadway improvements, and consistency with adopted plans.
- **Other Impacts and Opportunities**—Noise impacts for projects near State highway facilities and opportunities to clear access improvements environmentally for transit-oriented development projects.

## Local

### City of Union City 2040 General Plan

Streets around the project site are generally under City's jurisdiction, except for Mission Boulevard (i.e., SR 238), which is under Caltrans jurisdiction. The *City of Union City 2040 General Plan* (General Plan)<sup>12</sup> includes the following goals and policies associated with transportation:

**Goal M-1:** Design and maintain streets to be safe and accessible for all categories of users.

**Policy M-1.8: Consider automobile lane or width reductions to accommodate other modes.** Where appropriate, the City shall consider reducing the number and/or width of automobile lanes on major streets to accommodate bus lanes, bicycle lanes, or carpool lanes when major resurfacing projects occur.

**Policy M-1.9: Redesign Decoto Road as a complete street.** The City shall redesign and implement improvements to transform Decoto Road into a complete street and hallmark gateway into the Greater Station District.

**Policy M-1.10: Vision Zero policy.** The City shall work to eliminate traffic fatalities and serious injuries, while increasing safe, healthy, and equitable mobility for all.

**Goal M-2:** To provide a robust and interconnected bicycle and pedestrian circulation system throughout Union City.

**Policy M-2.2: Prioritize bicycle and pedestrian improvements, connecting neighborhoods to the greater Station District.** The City shall give priority to bicycle and pedestrian improvements that connect neighborhoods and job centers to the Greater Station District.

**Policy M-2.3: Integrate planned bicycle network with regional network.** The City shall integrate, where feasible, its planned bicycle route network with the Alameda Countywide Bicycle network and existing bicycle facilities in Fremont, Hayward, and Newark.

**Policy M-2.8: Secure bicycle parking.** The City shall require secure, safe, and convenient bicycle parking for all new or modified public and private developments; and support secure, low-cost bike parking at the BART station.

<sup>12</sup> City of Union City. 2020. *Union City 2040 General Plan Update*. Adopted: December 2019. Chapter 6: Safety Element. Available: <http://www.uc2040.com/documents/>. Accessed: March 25, 2020.

**Goal M-3:** Provide an accessible, sustainable, efficient, and convenient public transit system for residents, workers, and visitors in Union City.

**Policy M-3.2: Transit-first policy.** The City shall continue to encourage and promote the use of public transit as an alternative to single-occupancy vehicles by implementing transit improvements, such as designated transit lanes, improved signalization for transit vehicles, and improved transit stops.

**Policy M-3.5: Continue development of intermodal station.** The City shall take the lead in working with regional partners and seek grants and other transportation funding to continue the development of the Intermodal Station, centered on the existing BART station. The City shall continue to explore options for the potential expansion of services at the Intermodal Station to include intercity, regional, and commuter rail.

**Policy M-3.9: Upgrade existing BART station.** The City shall continue to work with BART to upgrade and expand the BART Station to accommodate future demand from the BART extension to the South Bay and accommodate passenger rail service.

**Policy M-3.13: Comfortable and convenient bus stops.** The City shall work with BART, AC Transit, Dumbarton Bridge Regional Operations Consortium (Dumbarton Express Bus), and Union City Transit to ensure that bus stops and shelters are sited in appropriate locations and are designed to maximize rider comfort and safety.

**Policy M-3.14: Support last-mile strategies.** The City shall support last-mile solutions (e.g., shuttle service, share-ride services) to connect public transit riders at the Intermodal Station to their ultimate destinations.

**Goal M-4:** Establish a safe, convenient, and efficient street network that facilitates vehicle travel throughout Union City.

**Policy M-4.3: LOS standards.** The City shall strive to achieve a traffic LOS D at all signalized intersections on arterial and collector streets during peak commute hours, with the exception of intersections on major regional routes, including Interstate 880 and Mission Boulevard (SR 238). If maintaining the LOS standards would, in the City's judgment, be infeasible and/or conflict with the achievement of other goals, LOS E or F conditions may be accepted provided that provisions are made to improve the overall system, promote non-vehicular transportation, and/or implement vehicle trip reduction measures as part of a development project or a City-initiated project.

**Policy M-4.4: Use VMT threshold to evaluate project impacts.** The City shall use vehicle miles traveled (VMT) to evaluate the transportation impacts of new development proposals under CEQA

**Policy M-4.11: Support Quarry Lakes Parkway.** The City shall pursue the timely construction of Quarry Lakes Parkway as a partially depressed and at grade parkway from Mission Boulevard to Interstate 880 to resolve current circulation deficiencies, improve the area's regional access and visibility, and stimulate the market for region serving retail, light industrial/ service commercial, and office uses.

**Policy M-4.18: Designate loading and drop-off areas for car services.** The City shall designate conveniently located short-term parking areas in the Greater Station District, popular commercial areas, and larger employment centers to allow for passenger loading and drop-off by taxis and transportation network companies (e.g., Uber, Lyft).

**Policy M-4.19: Electric-vehicle charging stations.** The City shall support electric vehicles and other low-emissions/ zero-emissions vehicles by working with third-party vendors to provide easily accessible charging stations within the City.

**Goal M-5:** To reduce VMT through strategies that reduce automobile dependency.

**Policy M-5.1: Transportation demand management.** The City shall work with landowners and employers in existing and emerging employment centers to implement transportation demand management (TDM) strategies that may include, but are not limited to:

1. Transit vouchers;
2. Van and car pool programs;
3. Car-sharing and bike-sharing programs;
4. Shuttles to BART;
5. Secure bike lockers/parking and showers;
6. Convenient and weather protected transit stops and shelters; and
7. Flexible work hours that start and end outside of the traditional work schedule

**Goal M-6:** Provide for an efficient and effective parking system that serves the needs of residents and businesses while supporting alternative modes of transportation.

**Policy M-6.1: Variable off-street parking standards.** The City shall continue to implement variable parking standards that reflect expected level of parking demand based on such factors as land use, proximity to transit, type of occupancy (e.g., seniors, multigenerational families), and intensity. Parking standards should reflect the City's goal of reducing vehicle miles traveled.

**Policy M-6.5: Shared parking arrangements and common parking facilities.** The City shall promote shared parking arrangements and facilitate development of common public or private parking facilities and structures in the City's major employment and shopping areas or in areas where expansion of parking is being considered.

**Policy M-6.7: Station District paid parking program.** The City shall continue to implement and enforce a paid parking program in the Station District and surrounding area to ensure that parking for the Intermodal Station does not negatively impact surrounding neighborhoods and shopping centers.

**Policy M-6.9: Parking demand and autonomous vehicles.** As autonomous vehicle technology evolves, the City shall consider the impacts of this new technology on parking demand and consider changes to parking requirements, as appropriate.

**Goal M-7:** Encourage the safe and efficient movement of goods to support the local economy while minimizing impacts on residential neighborhoods and local traffic patterns.

**Policy M-7.4: Discourage freight rail on Oakland Subdivision.** The City shall discourage freight rail activity on the Oakland subdivision to minimize impacts to the circulation of the Station District and Decoto neighborhood, including impacts to pedestrians and bicyclists.

The General Plan also identifies numerous implementation programs that provide a path forward for achieving Mobility Element goals.



### City of Union City Pedestrian and Bicycle Master Plan

The City's *Pedestrian and Bicycle Master Plan* recommended improvements for pedestrian and bicycle connections in Union City. Recommended improvements in the vicinity of the project are described beginning on 4.14-13. In 2019, the City initiated a process to update the *Bicycle and Pedestrian Master Plan*, which is expected to be completed by mid to late 2021.

### Decoto Industrial Park Study Area Specific Plan

The *Decoto Industrial Park Study Area Specific Plan* (DIPSA) Specific Plan (most recently amended in July 2006) includes the following policies associated with transportation:

**Goal 13:** Develop an efficient circulation system to accommodate both locally generated and regional traffic along attractive travel routes.

**Objective e.** Design internal circulation for all residential areas to minimize through traffic but provide for needed emergency access.

**Objective g.** Eliminate the barriers to internal circulation created by the tracks of the two railroads and BART, which effectively split the areas of potential development.

**Goal 15.** Develop a safe, convenient bicycle and pedestrian circulation system, offering easy access to schools, recreational facilities, shopping and work areas, and the citywide and regional trail systems.

**Objective a.** Require development of a bicycle and pedestrian system that is part of an integrated circulation system.

**Objective c.** Link the local bicycle and pedestrian circulation system with the citywide and regional trail systems and provide for connections to the future hillside trails system.

## 4.14.2 Environmental Impacts

### 4.14.2.1 Thresholds of Significance

California Environmental Quality Act (CEQA) Guidelines Appendix G (14 California Code of Regulations [CCR] 15000 et seq.) identifies significance criteria to be considered for determining whether a project could have significant impacts on transportation. Would the project:

- Conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, and bicycle and pedestrian facilities
- Conflict or be inconsistent with CEQA Guidelines Section 15064.3, Subdivision (b)
- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible land uses (e.g., farm equipment)
- Result in inadequate emergency access

Consistent with the OPR's *Technical Advisory on Evaluating Transportation Impacts in CEQA*,<sup>13</sup> the following thresholds are used to determine if the proposed project would have a significant impact on VMT:

- For residential uses, the project would result in substantial additional VMT if it would exceed existing citywide household VMT per capita minus 15 percent
- For office uses, the project would result in substantial additional VMT if it would exceed the existing citywide VMT per worker minus 15 percent

## Analysis Approach

The methodology used to estimate trips and VMT generated by the project is described below.

### Trip Generation

*Trip generation* refers to the process of estimating the amount of vehicular traffic a project would add to the local roadway network. Trip generation for the project assumes the following maximum buildout scenario.

- 1,150 multi-family dwelling units
- 45,000 square feet of commercial space, with approximately 90 employees

The maximum buildout scenario assumed for project trip generation is larger than that described in Chapter 3, *Project Description*, to present a more conservative analysis of project impacts on the transportation system. As described in Section 4, *Environmental Impact Analysis*, subsequent to the drafting of this EIR, the applicant indicated that the residential units associated with proposed project would increase by 10, from 964 to 974 units. As described therein, the analysis presented throughout this EIR adequately accounts for the potential environmental impacts of the 974 new residential units.

### Residential Trip Generation

Trip generation for project components on a typical weekday, including both the morning and evening peak hours, was estimated using the trip generation data presented in the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 10<sup>th</sup> edition.<sup>14</sup> Trip generation for the residential component of the project was determined using the ITE *Trip Generation Manual's* land use categories for "Multi-Family Mid-Rise" (i.e., land use code 221).

Although the project would include approximately 123 affordable housing units, the trip generation estimate assumes that all residential units would be market-rate residential units. Research on the transportation impacts of affordable housing shows that lower-income households generate fewer automobile trips than moderate- and high-income households for a given home location and housing

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<sup>13</sup> Governor's Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December. Available: [http://opr.ca.gov/docs/20190122-743\\_Technical\\_Advisory.pdf](http://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf). Accessed: October 2, 2020.

<sup>14</sup> Institute of Transportation Engineers. 2017. *Trip Generation Manual*. 10th edition. September.

type.<sup>15</sup> It is likely that the residents of the income-restricted components of the project would drive less and use non-automobile modes to meet their transportation needs. However, to present a conservative analysis, the project trip generation is not adjusted to account for residents' income levels.

### **Retail Trip Generation**

Although specific tenants have not yet been identified for the retail component of the project, the site is expected to be occupied by a variety of retailers to serve the local neighborhood. The land use category "Shopping Center" (land use code 820) was used for the retail component of the project.

### **Trip Generation Adjustments**

ITE *Trip Generation Manual* data are collected at mostly single-use suburban sites that provide few alternatives to driving. Research has shown that ITE rates often over-estimate the number of automobile trips when applied to denser mixed-use developments near quality transit service. Therefore, the estimated number of trips generated by the residential and retail components of the project were adjusted to account for external non-automobile trips as well as internal trips to reflect the number of new automobile trips expected to be added to the external roadway network more accurately.

The mixed-use development trip generation methodology is a validated method developed by the U.S. Environmental Protection Agency through a national study of the trip generation characteristics of multi-use sites throughout the country. The methodology adjusts trip generation to account for external non-automobile trips as well as internal trips within a mixed-use development. External non-automobile trips consist of transit trips as well as bicycling and walking trips. Adjustments for such trips vary, based on time of day. Daily trips are reduced by 11 percent, and morning and evening peak-hour trips are reduced by 19 percent. Internal trips are those that occur within a site between the residential and retail uses. These trips are not considered new trips on the external roadway network because they are made within the project site. Based on the mixed-use development methodology, the internalization percentage for total trips generated by the project is about 4 percent. The internalization adjustment is applied after the mode split adjustments described above. In addition, pass-by adjustments were applied for retail uses. Pass-by trips are attracted to a site from adjacent roadways, representing an interim stop on the way to the ultimate destination. Pass-by trips consist of vehicles that would already be on the roadway network, regardless of the project; therefore, such trips result in changed travel patterns but do not add new vehicle trips to the roadway network. According to the *ITE Trip Generation Handbook*, second edition, the average weekday evening peak-hour pass-by reduction is 34 percent for retail uses (land use code 820). Morning peak-hour and daily pass-by reductions are not provided for ITE land use code 820. Because morning peak-hour and daily pass-by rates are not available, a pass-by reduction was not applied for the morning peak hour; a 17 percent reduction (half of the evening peak-hour pass-by reduction) was applied to daily trips generated by the retail uses.

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<sup>15</sup> Howell, A., K. Currans, G. Norton, and K. Clifton. 2018. "Transportation Impacts of Affordable Housing: Informing Development Review with Travel Behavior Analysis." *Journal of Transport and Land Use*, 11(1), doi:10.5198/jtlu.2018.1129. Available: <https://www.jtlu.org/index.php/jtlu/article/download/1129/986>. Accessed: October 2, 2020;  
Commuting in America. 2013. *The National Report on Commuting Patterns and Trends*. October. Available: <http://traveltrends.transportation.org/Documents/CA10-4.pdf>. Accessed: October 12, 2020.

**Net Project Auto Trip Generation**

Table 4.14-7 summarizes total project trip generation. The proposed project would generate a net 441 morning peak-hour trips, 532 evening peak-hour trips, and 8,080 daily trips.

**Table 4.14-7. Project Trip Generation**

Land Use	Size <sup>a</sup>	Daily Trips	Morning Peak-Hour Trips			Evening Peak-Hour Trips		
			In	Out	Total	In	Out	Total
Residential <sup>b</sup>	1,150 dwelling units	6,270	98	277	375	282	181	463
Retail <sup>c</sup>	45,000 square feet	3,500	109	66	175	144	157	301
	Trip generation sub-total	9,770	207	343	550	426	338	764
	Mode split adjustments (11% daily and 19% morning/evening) <sup>d</sup>	-1,060	-37	-67	-104	-80	-64	-144
	Vehicle trips after mode split adjustments	8,710	170	276	446	346	274	620
	Internalization adjustment (4% daily/morning/evening) <sup>d</sup>	-120	-3	-2	-5	-5	-4	-9
	Shopping center pass-by adjustment (17% daily/0% morning/34% evening) <sup>e</sup>	-510	0	0	0	-38	-41	-79
	<b>Project Net New External Vehicle Trips</b>	<b>8,080</b>	<b>167</b>	<b>274</b>	<b>441</b>	<b>303</b>	<b>229</b>	<b>532</b>

Source: Fehr & Peers, 2020.

**Notes:**

- <sup>a</sup> The maximum buildout scenario assumed for project trip generation is larger than that described in Chapter 3, *Project Description*, to present a more conservative analysis of project impacts on the transportation system.
- <sup>b</sup> ITE *Trip Generation Manual* (10<sup>th</sup> edition) Land Use Category 221 (Multi-Family Mid-Rise – Adj. Streets, 7–9 a.m., 4–6 p.m., General Urban/Suburban):  
Daily:  $T = 5.45 \cdot X - 1.75$   
Morning Peak Hour:  $L_n(T) = 0.98 \ln(X) - 0.98$  (26% in, 74% out)  
Evening Peak Hour:  $L_n(T) = 0.96 \ln(X) - 0.63$  (61% in, 39% out)
- <sup>c</sup> ITE *Trip Generation Manual* (10<sup>th</sup> edition) Land Use Category 820 (Shopping Center – Adj. Streets, 7–9 a.m., 4–6 p.m., General Urban/Suburban):  
Daily:  $L_n(T) = 0.68 \ln(X) + 5.57$   
Morning Peak Hour:  $T = 0.5 \cdot (X) + 151.78$  (62% in, 38% out)  
Evening Peak Hour:  $L_n(T) = 0.74 \ln(X) + 2.89$  (48% in, 52% out)
- <sup>d</sup> Based on application of the mixed-use development trip generation tool.
- <sup>e</sup> The shopping center peak-hour pass-by rates are based on data from the ITE *Trip Generation Handbook* (third edition). The morning peak-hour pass-by rate is assumed to be zero; the daily rate is assumed to be half of the evening rate.

**VMT Screening Thresholds**

According to the OPR's *Technical Advisory on Evaluating Transportation Impacts in CEQA*, screening thresholds can be used to identify projects that can be expected to cause a less-than-significant impact without conducting a detailed study. OPR's recommended screening thresholds applicable to the proposed project are described below.

- **Small Projects** – Projects that generate fewer than 110 trips per day generally may be assumed to cause a less-than-significant VMT impact.

- **Low-VMT Area** – Residential projects located in areas with low VMT (i.e., 15 percent below the citywide average), that incorporate similar features (i.e., density, mix of uses, transit accessibility), are expected to exhibit similarly low VMT and cause a less-than-significant VMT impact.
- **Near Transit Stations** – Projects located within 0.5-mile of an existing major transit stop<sup>16</sup> or an existing stop along a high-quality transit corridor<sup>17</sup> are expected to generate low VMT and cause a less-than-significant VMT impact. This presumption may not apply if project-specific or location-specific information indicates that the project would still generate significant levels of VMT. The presumption may not be appropriate if the project:
  - Has a Floor Area Ratio (FAR) of less than 0.75
  - Includes substantially more parking for use by residents than required by the jurisdiction or generated by the project
  - Is inconsistent with the applicable Sustainable Communities Strategy
  - Replaces affordable residential units with a smaller number of moderate- or high-income residential units

#### 4.14.2.2 Impacts and Mitigation Measures

**Impact TRA-1: The proposed project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. (Less than Significant)**

##### Construction

Construction activities could potentially interfere with programs, plans, ordinances, or policies if temporary closures impede roadways, bikeways, or pedestrian facilities in a way that prohibits the achievement of identified goals. Similarly, construction activities could have a detrimental impact on existing bicycle and pedestrian facilities if temporary closures impede the use of these facilities. Most construction activities would be within the project site with little or no effect on the public right-of-way.

The proposed project would include some construction activity within the existing public right-of-way, such as improvements related to the existing traffic signal at the Decoto Road/7<sup>th</sup> Street intersection, construction of a new signal at the Decoto Road/9<sup>th</sup> Street intersection, construction of a new signal on 7<sup>th</sup> Street and future L Street or the crossing improvements at the existing at-grade railroad crossing on Decoto Road at the Niles Subdivision railroad tracks. Construction activities within the public right-of-way may need partial or full temporary closure of roadways, bikeways, and/or pedestrian facilities. Any closures would be temporary and include appropriate

<sup>16</sup> According to the California Public Resources Code, § 21064.3, 'Major transit stop' is defined as a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.

<sup>17</sup> According to the California Public Resources Code, § 21155, a 'high-quality transit corridor' is defined as a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.

traffic control and detours for all users, including private vehicles, buses, bicycles, and pedestrians, to ensure access and circulation during the temporary closure. Thus, detours would be temporary and would not fully impede movement or have a sustained detrimental impact on existing transit, bicycle, or pedestrian facilities. Therefore, the project would not produce a detrimental impact on existing bicycle and pedestrian facilities during construction and construction-related conflicts with programs, plans, ordinances, or policies addressing the circulation system would be *less than significant*.

## Operation

### Transit

The proposed project would consist primarily of high-density residential uses adjacent to local transit service (i.e., AC Transit and Union City Transit) and near regional transit service (BART). As a result, it would generate more transit trips than typical suburban developments. The project's design features would facilitate walking or biking to adjacent bus stops and the nearby Union City BART station. The pedestrian network within the project would allow project residents, workers, and visitors to walk between the project site and the existing bus stops along Decoto Road and 7<sup>th</sup> Street. Pedestrians walking to and from the bus stops on westbound Decoto Road would need to cross Decoto Road, which is a four-lane arterial. The existing signal on Decoto Road at 7<sup>th</sup> Street and the proposed signal at 9<sup>th</sup> Street, included as part of the project, would accommodate signal-protected pedestrian crossings of Decoto Road and allow access between the project site and the bus stops along westbound Decoto Road.

The tracks at the Niles and Oakland Subdivisions prohibit direct access between the project site and the Union City BART station. As a result, access between the project site and the Union City BART station would be provided along Decoto Road for now. The City's *Pedestrian and Bicycle Master Plan* recommends a grade-separated crossing for the UPRR tracks at the Niles Subdivision, just southwest of the project site. An at-grade crossing of the tracks at the Oakland Subdivision is currently planned. The two railroad crossings combined would provide a more direct access route between the project site and the BART station, and encourage BART use.

The uses, density, and location of the project and the project's transportation circulation system would encourage use of both local and regional transit service, and would be consistent with the City's goal to provide an accessible, sustainable, efficient, and convenient public transit system (i.e., Goal M-3). It would also support the City's transit first policy (i.e., Policy M-3.2). Although the proposed non-motorized grade-separated crossing at the Niles Subdivision UPRR tracks would facilitate access between the project site and the BART Station, the project would be consistent with these policies regardless of the proposed improvement because the project would continue to have access to both the BART Station and the buses serving the project area, regardless of the grade-separated crossing. Therefore, the impact on transit would be *less than significant*.

### Roadways

The project would include new streets within the project area. The new streets would provide at least one automobile lane in each direction, with sidewalks on both sides the street and buffered bicycle lanes along 7<sup>th</sup> Street, 9<sup>th</sup> Street, and Bradford Way. The project's internal streets would have narrower travel lanes, on-street parking, bulb-outs at intersections, and mid-block neck-downs (i.e., the narrowing of the paved roadway by removing parking) to discourage speeding and through traffic. The internal project street system would be consistent with the General Plan goal to design

and maintain streets that are safe and accessible for all users (i.e., Goal M-1) as well as the General Plan policy to reduce automobile lane widths to accommodate other modes (i.e., Policy M-1.8). The project's circulation system would also be consistent with the DIPSA Specific Plan goal to provide an efficient circulation system that accommodates both local and regional traffic (i.e., Goal 13) and the objective that calls for an internal circulation network within residential areas that minimizes through traffic but provides for emergency access (i.e., Objective 13.e).

The project would not modify the existing right-of-way on Decoto Road or conflict with potential improvements identified for Decoto Road in the Alameda CTC's East 14<sup>th</sup> Street/Mission Boulevard and Fremont Boulevard Multimodal Corridor Project study, which is currently underway. Therefore, the impact on roadways would be *less than significant*.

### **Bicycle Facilities**

The project would expand the bicycle network by providing buffered bicycle lanes along 7<sup>th</sup> Street, 9<sup>th</sup> Street, and Bradford Way within the project area. The eastbound bicycle lane on Bradford Way would be without a buffer after completion of the project under interim conditions and before redevelopment of the parcels along the south frontage of the street by others. The project would also provide buffered bicycle lanes on both sides of 7<sup>th</sup> Street between Decoto Road and Bradford Way within the existing right-of-way by eliminating on-street parking on both sides of the street between Decoto Road and K Street, and by eliminating on-street parking on one side of the street between K Street and Bradford Way. South of Bradford Way, a two-way bicycle path that would be completed by others in the future would be provided on the east side of 7<sup>th</sup> Street by eliminating on-street parking on one side of the street. The proposed bicycle facilities on 7<sup>th</sup> Street would be consistent with the planned bicycle improvements for 7<sup>th</sup> Street as identified in the City's *Pedestrian and Bicycle Master Plan*.

The bicycle network within the project area would connect to the existing Class II bicycle lanes on Decoto Road, which are planned to be upgraded to buffered bicycle lanes by the City, and the proposed buffered bicycle lanes on Zwissig Way. The two-way bicycle path on 7<sup>th</sup> Street would be extended southward and connect to the planned multi-use path adjacent to the future Quarry Lakes Parkway. The bicycle network would also connect to the potential grade-separated non-motorized crossing for the tracks at the Niles Subdivision, as envisioned in the City's *Pedestrian and Bicycle Master Plan*. The crossing would be part of a continuous bicycle network, connecting the project area and neighborhoods to the east and south with the Union City BART station and other points to the west. The proposed bicycle network would be consistent with the City's General Plan goal to provide a robust and interconnected bicycle circulation system (i.e., Goal M-2) with connections to adjacent neighborhoods that integrates with the planned bicycle network (i.e., Policies M-2.2 and M-2.3).

The project would provide about 290 long-term bicycle parking spaces and 168 short-term bicycle parking spaces throughout the project area. The long-term bicycle spaces would consist mostly of bicycle rooms or lockers in the parking garages for the multi-family buildings within the project area. The short-term bicycle parking spaces would consist of bicycle racks, which would be scattered throughout the site generally along sidewalks near building entrances and public facilities, such as the community parks. The proposed bicycle parking supply would exceed the City's minimum bicycle parking requirements and would be consistent with the City's General Plan policy to provide secure bicycle parking (i.e., Policy M-2.8). Therefore, the impact on bicycle facilities would be *less than significant*.

## Pedestrian Facilities

The project would provide sidewalks on both sides of all streets within the project area. Sidewalks would generally be separated from the automobile right-of-way by landscaped areas. The intersections within the project area would generally provide bulb-outs on all corners to reduce pedestrian crossing distances and improve sight lines. The project would include an east-west paseo, which would provide a non-motorized connection between 9<sup>th</sup> and M Streets mid-block between L Street and Bradford Way. The paseo would also provide curb extensions at intersections to facilitate pedestrian crossings. The project pedestrian network would connect to existing sidewalks along Decoto Road, Zwissig Way, and other adjacent streets. The proposed project's pedestrian network would be consistent with the City's General Plan goal to provide a robust and interconnected pedestrian circulation system (i.e., Goal M-2).

The project pedestrian network would connect to the potential grade-separated non-motorized crossing for the tracks at the Niles Subdivision, as envisioned in City's *Pedestrian and Bicycle Master Plan*, to provide a shorter pedestrian connection to the Union City BART station. The existing signal on Decoto Road at 7<sup>th</sup> Street and the proposed signal at 9<sup>th</sup> Street would provide signal-protected pedestrian crossings on Decoto Road and connect the project area to neighborhoods north of Decoto Road. The proposed project's pedestrian network and existing and potential connections to adjacent neighborhoods would be consistent with the City's General Plan policy to provide pedestrian connections and integrate with the Station District (i.e., Policies M-2.2 and M-2.3).

The project would also relocate and widen sidewalks on Decoto Road that would cross the tracks at the Niles Subdivision, thereby improving conditions for pedestrians on Decoto Road. In general, the project would create a pedestrian-friendly circulation system that would encourage walking within the project area and to nearby destinations, including the Union City BART station. Therefore, the project would be consistent with the relevant goals and policies of the City's General Plan and the *DIPSA Specific Plan*. Therefore, the impact on pedestrian facilities would be *less than significant*.

### **Impact TRA-2: The proposed project would not be in conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). (Less than Significant)**

Consistent with the OPR's *Technical Advisory on Evaluating Transportation Impacts in CEQA*, the VMT generated by the residential and retail components of the project are evaluated separately and described below.

## Residential VMT

As described above, screening thresholds can be used to identify projects that can be expected to cause a less than significant impact without conducting a detailed study. OPR's recommended screening thresholds and their applicability to the proposed project are described below.

- **Small Projects** – Projects that generate fewer than 110 trips per day generally may be assumed to cause a less than significant VMT impact. As shown in Table 4.14-7, the project would generate more than 110 trips per day and would not meet this screening threshold.
- **Low-VMT Area** – Residential projects located in areas with low-VMT (i.e., 15 percent below the citywide average), that incorporate similar features (i.e., density, mix of uses, transit accessibility), are expected to exhibit similarly low VMT and cause a less than significant



VMT impact. Based on the results of the Alameda CTC Model, the project is not located in an area with VMT per capita below the threshold. Thus, the project is not located in a low-VMT area and does not meet this screening threshold.

- **Near Transit Stations** – Projects located within 0.5-mile of an existing major transit stop or an existing stop along a high-quality transit corridor that also meet certain conditions are expected to generate low VMT and cause a less than significant VMT impact. The portion of Decoto Road adjacent to the project site is served by AC Transit Lines 99 and 232 and Union City Transit Route 4. These bus routes have a combined 12-minute headway during peak commute hours at the bus stops just west of 7<sup>th</sup> Street. Since the combined headways are less than 15 minutes, Decoto Road is considered a high-quality transit corridor. The project meets the “Near Transit Stations” screening threshold because the entire project site would be within 0.5-mile walking distance of the existing bus stops on Decoto Road just west of 7<sup>th</sup> Street. In addition, the project would meet the following conditions, which indicate that the project would not generate significant levels of VMT:
  - The project would have an overall FAR of 1.59, which would exceed the minimum FAR of 0.75 as recommended by OPR.
  - The project would provide about 1,601 off-street parking spaces for 974 residential units, which is not more than the 2,078 that would be required under the City’s Code requirements for the RM, Multifamily Residential, and Commercial district. A new Station East Mixed Use (SEMU) district will be created that would require 1,522 off-street parking spaces. Although the project proposes 79 spaces or approximately 5 percent more, this is not considered substantially higher than the proposed future SEMU parking standard requirements.
  - The project is located in the Station District Priority Development Area as defined by Plan Bay Area and is, therefore, consistent with the region’s Sustainable Communities Strategy.
  - There are no existing residential uses on the project site and the project would not remove any existing affordable residential units.

Based on the above, the project would meet OPR’s screening thresholds and therefore, the project’s impact on VMT would be ***less than significant***.

## **Retail VMT**

According to the OPR’s *Technical Advisory on Evaluating Transportation Impacts in CEQA*, retail uses smaller than 50,000 square feet can be considered local-serving uses. It is presumed these uses would have a less-than-significant impact on VMT because they would generally serve surrounding neighborhoods and encourage fewer trips outside the local neighborhood. The proposed project may include up to 45,000 square feet of retail space. Therefore, the retail component of the project is considered local serving and would not have a significant impact on VMT. Therefore, the retail component of the project’s impact on VMT would be ***less than significant***.

## **Impact TRA-3: The proposed project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible land uses (e.g., farm equipment). (Less than Significant)**

The project would include new buildings and new streets within the project site and modifications to existing public rights-of-way, which may affect transportation safety. The new streets and new intersections in the project area would provide adequate sight distance, and would accommodate all modes of travel, thereby minimizing potential conflicts of transportation modes.

Although individual buildings in the project area have not yet been designed, their final design will be reviewed by the City. This will ensure that they meet the required standards for access and circulation, such as an adequate sight distance between vehicles entering and exiting the driveways and pedestrians on the adjacent sidewalk, as well as vehicles on the adjacent street. In addition, the project would include the following modifications to the street system adjacent to the project site.

- New traffic signal at the Decoto Road/9<sup>th</sup> Street intersection, including associated roadway improvements, such as left-turn pocket and traffic signal pre-emption to minimize queue spillbacks on Decoto Road across the Niles Subdivision railroad tracks.
- New traffic signal at 7<sup>th</sup> Street/future L Street intersection, including associated roadway improvements, including left turn pocket.
- Improvements to the existing signal at the Decoto Road/7<sup>th</sup> street intersection, including associated roadway improvements such as lengthening of turn pocket, improving the sidewalks adjacent to the intersection, and providing crosswalks across all intersection approaches.
- Improvements at the existing at-grade railroad crossing on Decoto Road at the Niles Subdivision (e.g., upgrading signal control equipment to provide advanced pre-emption at the adjacent signalized intersections on Decoto Road). The project would also relocate and widen the sidewalks that cross the railroad tracks. Therefore, the project would improve safety for both vehicles and pedestrians on Decoto Road while crossing the tracks at the Niles Subdivision.
- Bicycle facilities along 7<sup>th</sup> Street, consisting of buffered bicycle lanes between Decoto Road and Bradford Way would be installed by the project applicant. A protected intersection at Bradford Way to facilitate bicycle and pedestrian movements at the intersection and connect to a two-way bicycle path on the east side of the street between Bradford Way and the future Quarry Lakes Parkway that will be completed by others in the future.

The above-listed facilities have not been fully designed. Their design will be reviewed by the City to confirm compliance with applicable design standards, which will ensure that the improvements would not increase hazards.

The project proposes residential and commercial uses that would be generally consistent with existing and future uses to the north, west, and east. However, areas to the south are predominantly industrial. As a result, 7<sup>th</sup> Street has a high percentage of truck traffic, as documented in Table 4.14-1. Both the proposed buffered bicycle lanes north of Bradford Way and the two-way path south of Bradford Way would separate bicycle and truck traffic. In addition, implementation of the proposed bicycle facilities would reduce lane widths on 7<sup>th</sup> Street, which would lower travel speeds through the corridor and improve safety. Therefore, the project would not increase hazards substantially due to geometric design features. In addition, because the proposed project would include design features that result in traffic calming, the residential and commercial uses at the project site would be compatible with adjacent uses. Therefore, this impact would be ***less than significant***.

**Impact TRA-4: The proposed project would not result in inadequate emergency access. (Less than Significant)**

The nearest fire station to the project site is Alameda County Fire Station 33, across 7<sup>th</sup> Street, near the proposed K Street, which would provide access to the project site. It is expected that emergency response vehicles from this fire station would respond to most emergency calls at the project site. However, emergency vehicles from other locations may also respond to emergency calls.

Emergency vehicles would access the project site from Decoto Road at the proposed extensions of 8<sup>th</sup> and 9<sup>th</sup> Streets and the emergency vehicle access stub mid-block between 8<sup>th</sup> and 9<sup>th</sup> Streets, which would provide emergency access to adjacent buildings. Emergency vehicles would also access the project area from 7<sup>th</sup> Street at Bradford Way, the proposed K and L Streets, and an emergency vehicle access point east of K Street. Emergency vehicles approaching on 7<sup>th</sup> Street would also use Zwissig Way, which becomes 8<sup>th</sup> Street west of Bradford Way, to access the project site.

Emergency vehicles would use internal streets in the project area to access project buildings. The internal streets in the project area do not include cul-de-sacs, allowing each building to be accessed from at least two routes. Therefore, if one route is inaccessible, emergency vehicles could use another route to access a building. All internal streets in the project area would accommodate emergency vehicles, and all through streets would provide adequate space for other vehicles to pull over and allow emergency vehicles to pass without blocking the streets. Therefore, the impact on emergency access would be *less than significant*.

### Cumulative Impacts

The cumulative geographic context for transportation is the City. The approach to cumulative impacts is described in Section 4, *Environmental Impact Analysis*.

**Impact C-TRA-1: The project, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. (Less than Significant)**

Consistency of the construction and operation of the proposed project with the applicable programs, plans, ordinances, and policies addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities under cumulative conditions would be the same as the current conditions as discussed under Impact TRA-1. For these reasons, the proposed project in combination with past, present, and reasonably foreseeable future projects would not result in a significant cumulative impact related to a conflict with programs, plans, ordinances, or policies addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. The cumulative impact would be *less than significant*.

**Impact C-TRA-2: The project would not result in a cumulatively considerable contribution to significant cumulative impacts related to a conflict or inconsistency with CEQA Guidelines Section 15064.3, subdivision (b). (Less than Significant)**

Decoto Road adjacent to the project site would remain a high-quality transit corridor under cumulative conditions and all project components would remain within 0.5-mile walking distance of the existing bus stops on Decoto Road just west of 7<sup>th</sup> Street. The project would continue to meet the screening thresholds under cumulative conditions. Therefore, the project's impact on VMT would be *less than significant* under cumulative conditions.

Similar to 2020 conditions, the retail component of the project would remain smaller than 50,000 square feet and can be considered a local-serving use. Therefore, the retail component of the project's impact on VMT would be *less than significant* under cumulative conditions.

**Impact C-TRA-3: The project, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible land uses (e.g., farm equipment). (Less than Significant)**

Several transportation network modifications are currently proposed or planned (described in *Planned Transportation Network Changes*, above), which would enhance multi-modal travel in the vicinity of the project site. These modification projects would be designed to meet applicable design standards. In addition, the cumulative projects that include street changes in the vicinity of the project site would be subject to these requirements. Similar to the proposed project, these street changes would be designed consistent with the applicable design standards. Therefore, the project would not increase hazards substantially due to geometric design features under cumulative conditions. In addition, the proposed residential and commercial uses at the project site would continue to be compatible with expected adjacent uses under the cumulative conditions, which would mostly consist of mixed residential and commercial uses, based on General Plan designations for the areas in the project vicinity. Therefore, the cumulative impact would be *less than significant*.

**Impact C-TRA-4: The project, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not result in inadequate emergency access. (Less than Significant)**

Emergency access for the proposed project under cumulative conditions would be similar to the emergency access under current conditions as described under Impact TRA-4. Therefore, the cumulative impact on emergency access would be *less than significant*.

## 4.15 Utilities and Service Systems

This section describes the environmental and regulatory setting for utilities and service systems. It also describes impacts on utilities and service systems that would result from implementation of the project and mitigation for significant impacts where feasible and appropriate. This section is based, in part, on the Water Supply Assessment (WSA) prepared for the project by the Alameda County Water District (ACWD) (**Appendix 4.15-1**).<sup>1</sup>

No comments regarding utilities and service systems were received in response to the Notice of Preparation (NOP).

### 4.15.1 Existing Conditions

#### 4.15.1.1 Environmental Setting

##### Water

##### Alameda County Water District

##### *Facilities and Sources*

The Alameda County Water District (ACWD) ACWD manages 900 miles of water pipelines and manages 13 reservoirs and tanks.<sup>2</sup> The average daily production in Fiscal Year 2017-2018 was approximately 37 million gallons per day (mgd) and the maximum daily production was approximately 55.66 mgd.

Water is provided to ACWD from three sources: local supplies, the State Water Project (SWP), and San Francisco's Regional Water System. Local supplies include fresh groundwater from the Niles Cone Subbasin, desalinated brackish groundwater from portions of the groundwater basin previously impacted by saltwater intrusion, and surface water from the Del Valle Reservoir. Approximately 40 percent of ACWD's current supply comes from the SWP, 20 percent from the San Francisco Regional Water System, and 40 percent from local supplies.<sup>3</sup> The SWP and San Francisco Regional Water Supplies are imported into the ACWD service area through the South Bay Aqueduct and Hetch Hetchy Aqueduct, respectively. The amount of water available from these sources is variable in any given year due to hydrologic conditions and other factors.

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<sup>1</sup> Alameda County Water District. 2020. *Water Supply Assessment for the Station East Project*. Adopted June 11, 2020; Resolution No. 20-042.

<sup>2</sup> Alameda County Water District. 2018. *ACWD Fact Sheet*. Available: <https://www.acwd.org/93/Fact-Sheet>. Accessed: March 10, 2020.

<sup>3</sup> Ibid.

**Service Area**

ACWD serves an area of approximately 105 square miles and covers the Cities of Fremont, Newark, and Union City. ACWD produces, stores, treats, and distributes water for a population of approximately 357,000 people in southern Alameda County and provides water service through approximately 84,000 connections.<sup>4</sup>

ACWD is located in the San Francisco Bay Hydrologic Region as defined by the California Department of Water Resources. The mean annual precipitation within ACWD service area is geographically variable due to the Diablo Range on the eastern boundary of the service area. The mean annual precipitation of the ACWD is approximately 15 inches.<sup>5</sup>

**Supply and Distribution**

As discussed above, water for the ACWD comes from three sources: local supplies, the SWP, and San Francisco's Regional Water System. Surface water is imported from the Sacramento-San Joaquin River Delta and/or Lake Del Valle via the South Bay Aqueduct. This water is purified at ACWD's surface water treatment plant and then delivered to customers.

Water purchased from the San Francisco Regional Water System is surface water that originates in either the Hetch Hetchy Reservoir in Yosemite National Park, or locally in Calaveras or San Antonio Reservoirs in the Alameda Creek watershed. Hetch Hetchy water meets all federal and State criteria for watershed protection, disinfection treatment, bacteriological quality, and operational standards, and has been granted a filtration exemption by the United States Environmental Protection Agency (USEPA) and the California Department of Public Health. Water from the local reservoirs is treated at ACWD's Water Treatment Plant No. 2, discussed below. Water from the San Francisco Regional Water System is normally delivered through Hetch Hetchy Aqueduct connections in Fremont. Additional connections in Fremont and Newark may be used to meet peak summer water demands and in times of emergency. San Francisco Regional Water System water is administered by the Bay Area Water Supply and Conservation Agency.

Blended water consists of a combination of purchased San Francisco Regional Water System water and local groundwater. The groundwater supply comes from the Niles Cone Groundwater Basin, which underlies the Tri-City area and is replenished through infiltration from local rainwater, runoff from the Alameda Creek Watershed, and the water from the South Bay Aqueduct. Purchased San Francisco Regional Water System water is blended with Peralta/Tyson and Mowry Wellfield water at ACWD's Blending Facility and is delivered to customers living in north Fremont, Union City, and parts of Newark. Desalted or desalinated water is produced at the Newark Desalination Facility (NDF) from brackish local groundwater. The desalination water produced by the NDF is blended with the Aquifer Reclamation Program well water to achieve a more balanced mineral content before being delivered to customers.

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<sup>4</sup> Alameda County Water District. 2018. *ACWD Fact Sheet*. Available: <https://www.acwd.org/93/Fact-Sheet>. Accessed: March 10, 2020.

<sup>5</sup> Alameda County Water District. 2015. *Alameda County Water District Urban Water Management Plan 2015–2020*. Available: <https://www.acwd.org/DocumentCenter/View/1264/ACWDs-2015---2020-UWMP?bidId=>. Accessed: March 10, 2020.

### **Treatment Facilities**

Before being delivered to ACWD customers, the source water supplies are treated to meet and surpass all State and federal drinking water standards. ACWD operates two surface water treatment plants that treat SWP water and local surface water from Del Valle Reservoir. In addition, the NDF treats brackish groundwater to remove salts and other impurities; the Blending Facility blends San Francisco Regional Water System water with local fresh groundwater; and a Regional Water System Direct Takeoff receives direct supplies of San Francisco Regional Water System water. Details of the facilities operated by the ACWD are as follows:<sup>6</sup>

- **Mission San Jose Water Treatment Plant (MSJWTP):** The facility uses membrane ultra-filtration technology for treatment of surface water from the South Bay Aqueduct. The MSJWTP is located near I-680 on Vargas Road. The sustainable production rate at MSJWTP is 3.2 mgd.
- **Water Treatment Plant No. 2 (WTP2):** The treatment plant is a conventional ozone plant used to treat water delivered via the South Bay Aqueduct. It is located on State Route 238, also called Mission Boulevard, near the Interstate 680 interchange in Fremont. The sustainable production rate at WTP2 is 26 mgd.<sup>7</sup>
- **Blending Facility:** The facility reduces the hardness of the ACWD's production well water by combining it with softer water from San Francisco Regional Water Supplies. Normal sustainable output from the Blending Facility is 48 mgd.<sup>8</sup>
- **Newark Desalination Facility (NDF):** The desalination facility uses a reverse osmosis membrane filtration process to treat brackish groundwater. The facility is located near Cherry and Central Avenue in Newark. The total blended production at NDF is 12.5 MGD to the distribution system.<sup>9</sup>
- **Regional Water System Direct Takeoff:** ACWD can receive direct supplies of water via any of the eight takeoffs from the San Francisco Regional Water Supply system located within the service area. Water purchased from the San Francisco Water Supply system is already treated with chloramines, and all delivered water supplies have been fluoridated since 2005. The Fremont take-off is the primary source of water for the Blending Facility.

### **Consumption**

Water consumption patterns in the ACWD service area are a function of many independent factors, including growth, weather conditions, economic conditions, and water conservation efforts. Table 4.15-1 and Table 4.15-2 provide a summary of the future projections in terms of the water supply versus water demand from 2020 to 2040 under normal year conditions and critical dry year conditions, respectively. Table 4.15-3 provides a summary of the future projections in terms of the water supply versus water demand from 2036 to 2040 under multiple dry year conditions.

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<sup>6</sup> Rincon Consultants, Inc. *2040 Union City General Plan Update Environmental Impact Report*. November 2019.

<sup>7</sup> Alameda County Water District. 2018. *ACWD Fact Sheet*. Available: <https://www.acwd.org/93/Fact-Sheet>. Accessed: March 10, 2020.

<sup>8</sup> Ibid.

<sup>9</sup> Ibid.

**Table 4.15-1. Alameda County Water District Projected Water Supply and Use: Normal Year (2020-2040)**

	Year				
	2020	2025	2030	2035	2040
Total Supply (acre-feet)	77,200	76,900	76,600	76,300	76,000
Forecast Demand (acre-feet)	62,900	67,000	68,600	69,300	69,800
Anticipated Shortage (acre-feet)	none	one	none	none	none

Source: Alameda County Water District. 2020. *Water Supply Assessment for the Station East Project*. Adopted June 11, 2020; Resolution No. 20-042.

Notes:

All values rounded to the nearest 100 acre-foot.

Forecast demands include project demands.

**Table 4.15-2. Alameda County Water District Projected Water Supply and Use: Critical Dry Year (2020-2040)**

	Year				
	2020	2025	2030	2035	2040
Total Supply (acre-feet)	55,300	55,700	56,100	56,500	56,800
Forecast Demand (acre-feet)	59,500	63,900	65,800	66,400	67,000
Anticipated Shortage (acre-feet)	(4,200)	(8,200)	(9,700)	(9,900)	(10,200)

Source: Alameda County Water District. 2020. *Water Supply Assessment for the Station East Project*. Adopted June 11, 2020; Resolution No. 20-042.

Notes:

All values rounded to the nearest 100 acre-foot.

Forecast demands include project demands.

Critical Dry Year conditions are based on projected water supply availability under 1977 drought conditions.

**Table 4.15-3. Alameda County Water District Projected Water Supply and Use: Multiple Dry Year (2036-2040)**

	Year				
	2036	2037	2038	2039	2040
Total Supply (acre-feet)	66,000	61,200	77,300	65,300	58,400
Forecast Demand (acre-feet)	68,800	65,200	65,200	65,700	63,300
Anticipated Shortage (acre-feet)	(2,800)	(4,000)	none	(400)	(4,900)

Source: Alameda County Water District. 2020. *Water Supply Assessment for the Station East Project*. Adopted June 11, 2020; Resolution No. 20-042.

Notes:

All values rounded to the nearest 100 acre-foot.

Forecast demands include project demands.

Multiple Dry Year conditions are based on projected water supply availability under 1987-1991 drought conditions; supply includes access to stored water in Semitropic Groundwater Banking Program in Kern County.



### **Conservation**

ACWD offers a wide variety of rebates, incentives, and technical assistance to its residential, commercial, industrial, institutional, and large landscape customers to encourage water conservation. Some of the current water conservation programs include: water savings assistance partnership program for income qualified customers; free water conserving devices; free home water audits; high water use notifications; leak detection program; water use efficiency surveys; green business certification partnership; water-efficient landscape rebate program; water-wise gardening online planning tool; and water-efficient landscape workshops.

### **Project Site**

A 12-inch water main in Bradford Way and Zwissig Way, along the project boundary, loops into a 14-inch water main in 7<sup>th</sup> Street. In addition, a 24-inch water main is located in Decoto Road. There are no main lines for recycled water near the project site. For the purposes of this analysis, it is conservatively assumed that the existing uses at the project site generate no demand for water.

### **Wastewater**

#### **Union Sanitary District**

The Union Sanitary District (USD) is an independent special district that provides wastewater collection, treatment, and disposal services in Union City. USD provides both primary and secondary treatment services: the primary treatment uses screening and sedimentation, while the secondary treatment uses activated sludge. USD maintains approximately 835 miles of sewer pipeline. The average daily wastewater treated in 2019 was approximately 23.7 mgd and the annual flow in 2019 was approximately 8.65 billion gallons.<sup>10</sup>

#### **Service Area and Facilities**

USD provides wastewater collection and treatment services for the 60.2-square-mile area encompassing the Cities of Fremont, Newark, and Union City. USD treats wastewater for a population of approximately 356,160 people.<sup>11</sup> In 2019, USD had approximately 115,943 connections.

Wastewater generated within the USD is treated at the Alvarado Treatment Plant (ATP) at 5072 Benson Road in Union City. The ATP treats approximately 25 mgd of wastewater from its service area and is currently permitted, and has the capacity to treat up to 33 mgd of dry-weather flow.<sup>12,13</sup>

The ATP is currently undergoing long-term improvements in accordance with the USD's Enhanced Treatment and Site Upgrade Program, which is to be implemented across three phases (2028 for Phase I, 2040 for Phase II, and full buildout by 2058).

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<sup>10</sup> Union Sanitary District. 2020. *Mission, Organization, Facts, and History*. Available: <https://www.unionsanitary.com/about-us/about-us/mission-facts-history>. Accessed: July 2, 2020.

<sup>11</sup> Ibid.

<sup>12</sup> Union Sanitation District. 2018. *About Us*. Available: <https://www.unionsanitary.com/about-us/alvarado-treatment-plant>. Accessed: March 13, 2020.

<sup>13</sup> Woodard & Curran. 2019. *Union Sanitary District Enhanced Treatment and Site Upgrade Program*. August. Available: [https://www.unionsanitary.com/images/documents/ETSU/Enhanced\\_Treatment\\_and\\_Site\\_Upgrade\\_Final\\_Report.pdf](https://www.unionsanitary.com/images/documents/ETSU/Enhanced_Treatment_and_Site_Upgrade_Final_Report.pdf). Accessed: March 13, 2020.

### **Project Site**

An 8-inch sanitary sewer main is located along the northeastern boundary of the project site. In addition, a 10-inch sanitary sewer main, located in the Bradford Way and Zwissig Way loop, flows to a 15-inch main in 7<sup>th</sup> Street. This sanitary sewer main eventually reaches a larger trunk sewer main in Alvarado-Niles Road that continues to the ATP. An existing 8-inch sanitary sewer line runs from 7<sup>th</sup> Street south towards the center of the project site. For the purposes of this analysis, it is conservatively assumed that the existing uses at the project site do not generate wastewater.

### **Stormwater**

The City owns and maintains the public storm drain system, which includes all of the storm drains, pipes, catch basins, and manholes within the City right-of-way. The outfalls, channels, creeks, and pump stations are owned and operated by Alameda County Flood Control and Water Conservation District. All storm drains in Union City flow directly to nearby creeks, wetlands, and the Bay.

The Environmental Programs Division of Union City conducts the industrial and illicit discharge inspection program. Additionally, the City reviews storm water pollution prevention plans (SWPPP), conducts storm water event inspections of construction sites, and receives and investigates complaints about illicit discharges into the public storm drain system.

### **Project Site**

There are several storm drains around the perimeter of the project site, including a 21-inch storm drain in Decoto Road, a 27-inch storm drain in 7<sup>th</sup> Street, and a 42- to 45-inch storm drain in 7<sup>th</sup> Street. In addition, there are 15-inch and 18-inch storm drain pipes in Bradford Way and Zwissig Way, respectively. These pipes drain to Line M-3, which, in turn, drains into Line M and then into Alameda Creek.

### **Garbage, Recycling, and Organics Collection Service**

Solid waste collection services in Union City are provided pursuant to the City's exclusive franchise agreement with Republic Services. The Republic collection vehicles deliver material collected to the Fremont Recycling and Transfer Station in Fremont. The solid waste is then transferred to long-haul transport trucks and delivered to the Altamont Landfill and Resource Recovery Facility in Livermore. A disposal agreement with Waste Management, owner/operator of the Altamont Landfill, ensures long-term disposal capacity at the landfill for Union City and neighboring jurisdictions. Commercial (Republic) and residential (Tri-CED) organics are processed at Republic's Newby Island Composting facility. Weekly curbside collection of residential recyclables in the City is provided by Tri-CED. Single stream recycling allows residents to place cans, bottles, paper, plastics, etc. in the same receptacle for weekly collection. Tri-CED operates a Materials Recovery Facility, located at 33377 Western Avenue in Union City, where all single-stream residential collection recycling materials are processed.

The permitted capacity of the primary solid waste disposal facilities that serve the project site are provided in Table 4.15-4.

**Table 4.15-4. Primary Solid Waste Disposal Facilities Serving the Project Site**

<b>Facility</b>	<b>SWIS Number</b>	<b>Maximum Permitted Capacity</b>
Fremont Recycling and Transfer Station	01-AA-0297	2,400 tons/day
Newby Island Resource Recovery Park (BFI Newby Island Recyclery)	43-AN-0014	2,500 tons/day
Newby Island (Composting)	43-AN-0017	700 tons/day
Altamont Landfill and Resource Recovery Facility	01-AA-009	11,150 tons/day

Source: CalRecycle. 2019. SWIS Facility/Site Search. Available: <https://www2.calrecycle.ca.gov/swfacilities/Directory/>. Accessed: March 13, 2020.

Notes: SWIS = Solid Waste Information System

In 2018, the most recent year from which data are available, the City of Union City generated a total of 37,408 tons of solid waste.<sup>14</sup> The City has a per-resident disposal rate target of 6.3 pounds per day and a per-employee disposal rate target of 22.6 pounds per day. In 2018, the City met these goals by achieving disposal rates of 2.8 pounds per day for residents and 6.4 pounds per day for employees.<sup>15</sup>

### Electricity, Natural Gas, and Telecommunications

Pacific Gas and Electric (PG&E) provides all natural gas and electric infrastructure in the City. East Bay Community Energy provides electricity to customers in Alameda County using PG&E infrastructure; if individuals choose to opt out of East Bay Community Energy, PG&E provides electricity. PG&E provides natural gas to the project site. All buildings within the project site have existing connections to infrastructure; the vacant areas do not.

There are numerous telecommunication providers in the City for DSL, wireless, cable, and fiber optic services. Of the approximately 20 internet service providers in the City, 10 offer residential services and 18 offer business services. Service providers such as AT&T, XFINITY from Comcast, Sonic, and EarthLink, among many others, provide telecommunication services to residents and businesses in the City. Underground conduits are located in the vicinity of the project site.<sup>16</sup>

<sup>14</sup> CalRecycle. 2018. *Local Government Information Center (LoGIC) Jurisdiction Disposal Tonnage Trend*. Jurisdiction: Union City. Available: <https://www2.calrecycle.ca.gov/LGCentral/AnnualReporting/ReviewReports/DisposalTonnageTrend>. Accessed: March 13, 2020.

<sup>15</sup> CalRecycle. 2019. *Jurisdiction Diversion/Disposal Rate Summary (2007–Current)*. Available: <https://www2.calrecycle.ca.gov/LGCentral/DiversionProgram/JurisdictionDiversionPost2006>. Accessed: March 13, 2020.

<sup>16</sup> BroadBandNow. 2020. *Internet Providers in Union City, California*. Available: <https://broadbandnow.com/California/Union-City?zip=94587#show=business>. Accessed: January 30, 2020.

## 4.15.1.2 Regulatory Setting

### State

#### Urban Water Management Planning Act

Assembly Bill (AB) 797 (California Water Code Section 10610, et. seq.), adopted in 1983, requires that every urban water supplier providing water for municipal purposes to more than 3,000 customers or providing more than 3,000 acre-feet of water on an annual basis prepare an Urban Water Management Plan (UWMP). The intent of the UWMP is to assist water supply agencies, including the ACWD, with long-term water resource planning, given their existing and anticipated future demands. UWMPs must be updated every 5 years in years ending in 0 and 5.<sup>17</sup> ACWD's 2015-2020 UWMP was adopted on June 9, 2016.

#### Senate Bill 610

Senate Bill (SB) 610 requires that certain large projects subject to the California Environmental Quality Act (CEQA) prepare a specified WSA.<sup>18</sup> The WSA must be furnished to the local government for inclusion in any environmental documentation for certain projects (as defined in Water Code 10912[a]) subject to CEQA. This legislation also expands the requirements for certain types of information in an UWMP, including an identification of any existing water supply entitlements, water rights, or water service contracts held relevant to the WSA for a proposed project, and a description of water deliveries received in prior years. The WSA prepared for the project and follow-up correspondence with the ACWD regarding the changes to the project described in Section 4, *Environmental Impact Analysis*, are provided in **Appendix 4.15-1**.

#### Senate Bill 221

SB 221 prohibits approval of subdivisions consisting of more than 500 dwelling units unless there is verification of sufficient water supplies for the project from the applicable water supplier(s).<sup>19</sup> This requirement also applies to increases of 10 percent or more of service connections for public water systems with fewer than 500 service connections. The law defines criteria for determining "sufficient water supply," such as using normal-year, single dry-year, and multiple dry-year hydrology and identifying the amount of water that the supplier can reasonably rely on to meet existing and future planned use.

#### Senate Bill X7-7

SB X7-7, the Water Conservation Act of 2009, sets an overall goal of reducing per-capita urban water use by 20 percent by December 31, 2020. The State is required to make incremental progress toward this goal by reducing per-capita water use by at least 10 percent by December 31, 2015. This is an implementing measure of the Water Sector in the *2017 Climate Change Scoping Plan* that will

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<sup>17</sup> DWR. 2010. *California Water Code Division 6, Part 2.6: Urban Water Management Planning*. Available: [https://water.ca.gov/LegacyFiles/urbanwatermanagement/docs/water\\_code-10610-10656.pdf](https://water.ca.gov/LegacyFiles/urbanwatermanagement/docs/water_code-10610-10656.pdf). Accessed: March 16, 2020.

<sup>18</sup> DWR. 2003. *Guidebook for Implementation of Senate Bill 610 and Senate Bill 221 of 2001 to Assist Water Suppliers, Cities, and Counties in Integrating Water and Land Use Planning*. Available: [https://water.ca.gov/LegacyFiles/pubs/use/sb\\_610\\_sb\\_221\\_guidebook/guidebook.pdf](https://water.ca.gov/LegacyFiles/pubs/use/sb_610_sb_221_guidebook/guidebook.pdf). Accessed: March 16, 2020.

<sup>19</sup> Ibid.

continue to be implemented beyond 2020. Reduction in water consumption reduces the energy necessary and the associated emissions to convey, treat, and distribute the water; it also reduces emissions from wastewater treatment.

### **Green Building Code and Title 24 Updates**

The California Green Building Standards Code (CALGreen) (proposed Part 11, Title 24) was adopted as part of the California Building Standards Code (24 California Code of Regulations). Part 11 established voluntary standards that became mandatory under the 2010 edition of the code. These involved sustainable site development, energy efficiency (in excess of California Energy Code requirements), water conservation, material conservation, and internal air contaminants. The current energy efficiency standards were adopted in 2019 and took effect on January 1, 2020.

### **California Integrated Waste Management Act**

The California Integrated Waste Management Act (IWMA), AB 939, passed in September 1989, requires every City and county in the State to prepare a Source Reduction and Recycling Element with its Solid Waste Management Plan that identifies how each jurisdiction will meet the mandatory State diversion goals of 25 percent by 1995 and 50 percent by 2000.<sup>20</sup> The intent of AB 939 is to facilitate solid waste reductions, recycling, and reuse to the greatest extent possible. The bill imposes fines of up to \$10,000 per day on Cities and counties for non-compliance in meeting the goals and timelines set forth in AB 939.

In 2011, AB 341 modified the California IWMA and directed CalRecycle to develop and adopt regulations for mandatory commercial recycling. The resulting Mandatory Commercial Recycling Regulation (2012) requires that on and after July 1, 2012, certain businesses that generate four cubic yards or more of commercial solid waste per week must arrange recycling services. To comply with this requirement, businesses may either separate and self-haul recyclables or subscribe to a recycling service that includes mixed waste processing. AB 341 also established a statewide recycling goal of 75 percent; the 50 percent disposal reduction mandate still applies for Cities and counties under AB 939.<sup>21</sup>

### **Assembly Bill 1826**

AB 1826 requires that State agencies, businesses, and multifamily complexes that generate specific quantities of organic or solid waste each week enroll in organic recycling programs through an applicable solid waste disposal company. Organic recycling programs may take the form of composting, mulching, or anaerobic digestion. Businesses and multifamily residential housing complexes that generate the following quantities are required to implement organic or solid waste recycling programs under AB 1826:

- Eight or more cubic yards of organic waste per week as of April 1, 2016;
- Four or more cubic yards of organic waste per week as of January 1, 2017;
- Four or more cubic yards of solid waste per week as of January 1, 2019; and
- Two or more cubic yards of solid waste per week as of January 1, 2020, if statewide disposal of organic waste is not reduced by half.

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<sup>20</sup> CalRecycle. 2020. *Diversion Rate Measurement Before 2007*. Available: <https://www.calrecycle.ca.gov/lgcentral/divmeasure>. Accessed: October 1, 2020.

<sup>21</sup> CalRecycle. 2019. *History of California Solid Waste Law, 1985–1989*. Available: <https://www.calrecycle.ca.gov/laws/legislation/calhist/1985to1989>. Accessed: March 16, 2020.

CalRecycle is currently evaluating whether California has achieved its statewide organic disposal goal of reducing organic waste disposal to 50 percent of 2014 levels by 2020. If this goal is not achieved, organic composting and recycling requirements will be expanded such that businesses that generate two or more cubic yards of solid waste per week must comply.<sup>22</sup>

### State Water Project

The DWR manages and operates the SWP, which consists of 28 dams and reservoirs, 26 pumping and generating plants, and approximately 660 miles of aqueducts. Local and regional water agencies receive SWP water from these facilities based on DWR service delivery estimates. ACWD “banks” SWP-supplied water that it does not use in groundwater storage in the Niles Cone Groundwater Basin and the Semitropic Groundwater Bank or surface water storage at San Luis Reservoir for use in subsequent dry years when SWP supplies are reduced.<sup>23</sup>

## Local

### City of Union City 2040 General Plan

The *City of Union City 2040 General Plan* (General Plan) includes the following goals and policies associated with utilities and service systems:

**Goal PF-3:** Ensure the provision of a water system with adequate supply, distribution, and storage facilities to provide safe and reliable water to meet the existing and future needs of the City.

**Policy PF-3.2: Preserve and Enhance Water Supply.** The City of Union City (City) shall support Alameda County Water District in their efforts to preserve and enhance the water supply.

**Policy PF-3.3: Ensure Adequate Water Supply Prior to Approving New Development.** The City shall coordinate with ACWD to review development proposals to ensure that new development can be adequately served by the District’s water supply system. The City shall only approve new development where an adequate public water supply and conveyance system exists or will be provided by the ACWD.

**Policy PF-3.5: Water Efficient Landscape Ordinance.** The City shall promote efficient water use and reduced water demand by ensuring compliance with the City’s Water Efficient Landscape Ordinance. The City shall review and update the Water Efficiency Landscape Ordinance, as needed, to ensure that it is consistent with State law.

**Policy PF-3.6: Require Water Conservation Features.** The City shall require new development and City facilities to incorporate water conservation features to reduce overall water usage.

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<sup>22</sup> CalRecycle. 2016. *California Businesses and Multifamily Complexes Will Soon Be Required to Recycle Their Organic Waste*. Available: <https://www2.calrecycle.ca.gov/Publications/Download/1206>. Accessed: March 16, 2020.

<sup>23</sup> DWR. 2020. *State Water Project*. Available: <https://water.ca.gov/Programs/State-Water-Project>. Accessed: July 2, 2020.

**Policy PF-3.8: Promote Bay-Friendly Landscaping.** The City shall continue to require the incorporation of bay-friendly landscaping practices into new development and promote the incorporation of these practices into existing landscapes

**Goal PF-4:** Ensure adequate wastewater collection, treatment, and disposal.

**Policy PF-4.1: Coordinate to Ensure Adequate Wastewater Service for New Development.** The City shall coordinate its review of development proposals with USD to ensure new development can be adequately served.

**Policy PF-4.2: Require Public Sewer System.** The City shall only approve new development where it will be served by a public sewer system.

**Goal PF-5:** Provide a stormwater collection system that reduces excess runoff and minimizes flood potential from existing and future development, reduces impacts on water quality, improves environmental quality, and incorporates nature-based flood management and green infrastructure.

**Policy PF-5.2: Encourage Natural Stormwater Drainage.** The City shall encourage the use of natural stormwater drainage systems in a manner that preserves and enhances natural features.

**Policy PF-5.4: Surface Drainage Disposal.** The City shall ensure that new development accommodates surface drainage disposal in one of the following ways:

- a) Positive drainage to a City-approved storm drain that uses green infrastructure to pretreat the drainage prior to it entering the City's storm drainage system; or
- b) On-site drainage that is retained and treated within the development.

**Policy PF-5.7: Evaluate Need for On-Site Detention and/or Retention Facilities.** The City shall evaluate public and private development projects to determine the effects of the projects on on-site and downstream drainage patterns and associated ecological systems. Projects may require on-site detention or retention facilities to maintain existing storm flows and velocities in natural drainage system. Any new facilities shall incorporate green infrastructure elements identified in the Green Infrastructure Plan to the extent feasible.

**Policy PF-5.9: Full Trash Capture Devices in Private Development.** The City shall require that all new development and any redevelopment of a project site to install full trash capture devices in their systems prior to connecting into the City's storm drainage system.

**Policy PF-5.13: Maximize On-site Infiltration and Detention.** The City shall work with developers to ensure impervious areas are minimized and that opportunities for ground water infiltration, treatment and on-site detention to meet hydromodification management (HM) are maximized prior to releasing the drainage to the public stormwater system, to the extent feasible.

**Goal PF-6:** Maintain and support the provision of an efficient program for the management and reduction of solid waste materials, including reuse, recycling, collection, and disposal, to protect public health and the natural environment, to conserve energy and natural resources, and to extend landfill capacity.

**Policy PF-6.3: Solid Waste Diversion.** The City shall meet or exceed State goals regarding waste diversion from landfills and Alameda County Waste Management Authority requirements for recycling and composting, through enhancement of programs that reduce, reuse, and recycle waste and through ongoing and consistent public outreach and education, monitoring, and enforcement activities.

**Policy PF-6.6: Recycling and Reuse of Building Materials.** The City shall require recycling and reuse of building materials during demolition and construction in accordance with City's Construction and Demolition Debris Ordinance and the California Green Building Standards Code.

**Policy PF-6.7: Public Education on Green Purchasing.** The City shall educate and encourage residents and businesses to reuse products, choose post-consumer recycled content products, reduce packaging waste, and use non-toxic cleaning products to reduce waste and greenhouse gas emissions.

**Policy PF-6.10: Design New Development to Accommodate Recycling and Waste Collection.** All new development with private roads shall be required to construct interior roadways that can accommodate the weight of recycling trucks and waste hauling trucks. Multi-family development shall be designed to provide adequate street space and a clear point of travel to easily service containers in the designated collection area. Multi-family developments with centralized waste, recycling and organics collection areas shall be designed to minimize distances from homes and recycling area.

**Goal PF-1:** Ensure efficient, effective, and coordinated response to natural and manmade disasters.

**Policy PF-1.1: Ensure Adequate Facilities and Services.** The City shall ensure through the development review process that adequate public facilities and services are available to serve new development when required. The City shall not approve new development where existing facilities are inadequate to support the project unless the applicant can demonstrate that all necessary public facilities (including water service, sewer service, storm drainage, transportation, police and fire protection services) will be installed or adequately financed and maintained (through fees, special taxes, assessments, or other mean).

#### **Decoto Industrial Park Study Area Specific Plan**

The *Decoto Industrial Park Study Area Specific Plan* (DIPSA Specific Plan) (most recently amended in July 2006) includes the following goals and policies associated with utilities and service systems:

**General Policy 4:** All utilities serving the DIPSA should be installed underground, including Mission Boulevard.

**General Policy 5:** To the greatest extent possible, water, wastewater and storm drains should be designed for gravity flow to increase reliability and to reduce energy costs.

**General Policy 6:** Building permits for new development shall only be issued when all utilities are available for the project.

**Storm Water Drainage/Flood Control System Policy 4:** All new development contiguous to its flood control facilities must provide improvements to contain or convey the 100-year flooding on-site pursuant to Alameda County Flood Control and Water Conservation District policy. Therefore, the undersized portions of the Line M channel between the Southern Pacific Railroad and Alvarado-Niles Road may require construction of 3-foot flood walls to provide 100-year conveyance.



### **Water Efficient Landscape Ordinance**

The Water Efficient Landscape Ordinance of the Union City Municipal Code (Chapter 18.112) establishes requirements to incorporate water-efficient landscape design using Bay-friendly landscaping. In addition to utilizing low-water, native plants, the ordinance requires water management practices and the incorporation of water waste prevention design.<sup>24</sup> The City's requirements are based on the standards included in SB X7-7.

### **Union Sanitary District Sewer System Management Plan**

The USD Sewer System Management Plan (SSMP) focuses proper management, operation, and maintenance of all parts of the sanitary sewer system to help reduce and prevent sanitary sewer overflows (SSOs), as well as mitigate any SSOs that do occur. The goals of the USD SSMP are to:

- Properly manage, operate, and maintain all parts of the wastewater collection system
- Provide a safe work environment for employees
- Minimize preventable SSO
- Understand the condition of and maintain infrastructure to maximize the life of the collection system
- Operate and maintain systems to minimize impact on customers
- Prepare for emergencies
- Be a part of the community and be a responsible public agency
- Involve employees in the strategic planning process
- Effectively plan system expansion in order to meet the capacity needs of the three Cities that USD serves
- Set high, achievable standards for the construction of new infrastructure

### **Alameda County Mandatory Recycling Ordinance**

The Alameda County Mandatory Recycling Ordinance prohibits the disposal of certain readily recyclable materials. It requires multifamily residential properties with five or more units and businesses with four cubic yards or more of weekly garbage service to provide on-site recycling to handle the amount of recyclable materials generated at the location. Phase 1 of the Ordinance became effective July 1, 2012. Phase II of the Ordinance, which expanded the recycling requirement to all businesses and adds discarded food and compostable paper products to list of covered materials, became effective in the City on January 1, 2018.<sup>25</sup>

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<sup>24</sup> City of Union City. 2016. *Water Efficient Landscape Ordinance*. Available: [https://qcode.us/codes/unioncity/view.php?topic=18-18\\_112&showAll=1&frames=on](https://qcode.us/codes/unioncity/view.php?topic=18-18_112&showAll=1&frames=on). Accessed: March 16, 2020.

<sup>25</sup> Alameda County Waste Management Authority. n.d. *Ordinance Overview*. Available: <http://www.recyclingrulesac.org/ordinance-overview/#mandatory-recycling-ordinance>. Accessed: March 16, 2020.

### **Construction and Demolition Debris Recycling Ordinance**

The Construction and Demolition (C&D) Debris Recycling Ordinance of the Union City Municipal Code (Chapter 15.75), which requires new construction projects to recycle or reuse 100 percent of all asphalt, concrete, uncontaminated soil, land-clearing debris, and plant debris. It also requires recycling or reuse of 65 percent of all other C&D debris generated by a project.

### **Union City Climate Action Plan**

The *Union City Climate Action Plan* was adopted in 2010 and set a long-term goal of reducing GHG emission 20 percent below 2005 levels by 2020. The CAP identifies emission reduction strategies in the land use, transportation, buildings and energy, waste, water, and green infrastructure sectors. Strategies include supporting transit-oriented development, promoting alternative modes of transportation, reducing energy and water consumption, increasing waste diversion, and expanding the urban forest.<sup>26</sup> In addition, the CAP includes a series of “Waste Reduction” policies designed to increase waste diversion, strengthen construction and demolition recycling standards, expand outreach programs, and increase waste reduction in municipal facilities. The total GHG reduction potential of the Waste Reduction Action Area is approximately nine percent of the total GHG reductions of the CAP.

### **Union City Green Building and Landscaping Practices, Municipal Code Chapter 15.76**

The City adopted the Green Building and Landscaping Practices ordinance as part of the City’s municipal code in March 2006. The ordinance provides requirements for green building and landscaping practices to be used in City-sponsored and public partnership projects through all aspects of a project, including design, construction, demolition, renovation, operation, and maintenance of buildings and landscaping in the City. The requirements are designed to reduce landfill waste, conserve natural resources, increase energy efficiency, lower costs associated with operation and maintenance, improve indoor air quality, and minimize impacts on the natural environment.

## **4.15.2 Environmental Impacts**

This section contains the impact analysis for the proposed project as it pertains to utilities and service systems. The methods used to determine the potential project-related impacts, as well as the thresholds of significance used to conclude whether or not an impact would be significant, are described below. Measures that would mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts are included within each impact discussion where they have been deemed necessary and appropriate.

### **4.15.2.1 Thresholds of Significance**

California Environmental Quality Act (CEQA) Guidelines Appendix G (14 California Code of Regulations [CCR] 15000 et seq.) identifies significance criteria to be considered for determining whether a project could have significant impacts on utilities and service systems. Would the project:

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<sup>26</sup> Union City. 2010. *Union City Climate Action Plan*. November. Available: <https://www.unioncity.org/DocumentCenter/View/708/Union-City-Climate-Action-Plan-PDF?bidId=>. Accessed: July 2, 2020.

- Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?
- Have sufficient water supplies available to serve the project and reasonably foreseeable future development during dry and multiple dry years?
- Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?
- Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?
- Comply with federal, State, and local management and reduction statutes and regulations related to solid waste?

#### 4.15.2.2 Methods for Analysis

As described in Section 4, *Environmental Impact Analysis*, subsequent to the drafting of this EIR, the applicant indicated that the residential units associated with proposed project would increase by 10, from 964 to 974 units. As described therein, the analysis presented throughout this EIR adequately accounts for the potential environmental impacts of the 974 new residential units. In addition, the ACWD confirmed the increase in units would not result in any changes to the conclusions in the Water Supply Assessment prepared for the project (**Appendix 4.15-1**).

All project elements were analyzed by comparing baseline conditions, as described in the *Environmental Setting*, to conditions during construction and/or operation of the project. With respect to water supply, the supply/demand comparisons are provided for normal, single year dry, and multiple dry year conditions. Availability and capacity for each utility anticipated under project conditions were compared to forecasted availability and capacity identified in City planning documents, including the General Plan, the General Plan EIR, and the WSA.

#### 4.15.2.3 Impacts and Mitigation Measures

**Impact UT-1: In the immediate project area, the project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. (Less than Significant)**

The project would include off-site infrastructure improvements outside of the project site but within the project vicinity. Existing water, stormwater, sanitary sewer system, natural gas, electricity, and telecommunications facilities (i.e., lines) would continue to serve the project site. New on-site facilities would also be connected to existing on-site or adjacent infrastructure through the installation of new, localized connections. Expansion or an increase in capacity of off-site infrastructure would occur as required by the utility providers; impacts associated with expansion of treatment facilities is discussed further below.

Specifically, implementation of the project would result in the construction of the following utility improvements and expansions either on or adjacent to the project site.

- **Water:** An existing 12-inch water line in Bradford Way and Zwissig Way loops into a 14-inch water main in 7<sup>th</sup> Street. The proposed project would connect to the existing 24-inch water main in Decoto Road, the 14-inch water main in 7<sup>th</sup> Street, and the 12-inch water main in Bradford Way and Zwissig Way. Mains within private streets on the project site would connect to the new water mains in 8<sup>th</sup> Street to minimize connections within existing streets. In total, approximately 6,500 linear feet of new water mains would be constructed as part of the project. Private sub-metering of all master metered units would be installed for the proposed residential units served by master water meters. In addition, any existing water services that would not be used under the proposed project would be removed by ACWD.
- **Stormwater:** Bio-treatment areas would be located within the project site and along Bradford Way, primarily within the public right of way, to treat runoff from public streets and capture and naturally filter urban contaminants from the site's stormwater runoff. In addition, the project would include two storm basins, totaling approximately 1.42 acres, in the western portion of the project site to detain stormwater in order to meet hydro-modification requirements. Stormwater runoff would be collected from the roofs of the proposed buildings and all paved areas. The project also proposes to construct stormwater treatment facilities for the north side of existing Bradford Way along the project frontage. Ultimately, the stormwater would be directed to the bio-retention areas prior to discharging it from the site.

The amount of impervious area within the project site would increase upon project completion, with approximately 20 percent of the project site covered with pervious surfaces and 80 percent of the project site covered with impervious surfaces. After using all non-LID treatment credits available, the project would be required to provide approximately 13,000 sf of bio-treatment areas. For consistency with Alameda Countywide Clean Water Program requirements, the project applicant would be required to identify whether preferred low-impact development (LID) strategies are feasible on-site. However, the potential for these methods to be feasible at the project site is unlikely due to insufficient space to meet treatment sizing requirements and spacing requirements between utilities and landscaping. The two basins, totaling approximately 1.42 acres, would be located immediately west of Planning Areas 9 and 10. Stormwater runoff would be collected from the roofs of the proposed buildings and all impervious areas. Ultimately, stormwater would be directed to the bio-retention areas, which would slowly release the discharge from the site. Refer to section 4.8, *Hydrology and Water Quality*, for additional discussion.

- **Wastewater:** The proposed project would remove three of the 6-inch sewer laterals on Bradford Way and Zwissig Way, which were originally intended for industrial use. To serve the development, the project would connect to the existing 8-inch sewer main along L Street and the 10-inch sewer main in Bradford Way and Zwissig Way from multiple new connections, with new manholes at each of these connection points. It is likely that the sanitary sewer mains in the private alleys of the project site would be grouped together to connect to the on-site sanitary sewer main and minimize the amount of work in existing streets. The proposed project would also include abandonment and removal of an existing on-site septic system and leach field. ACWD drilling permits would be required prior to the start of any subsurface drilling activities associated with wells, exploratory holes, or other excavations. All permitted work would require scheduling for inspection; therefore, all drilling activities would be coordinated with ACWD prior to the start of any fieldwork.

- **Electricity, Natural Gas, and Telecommunications:** The proposed project would require new connections to existing electricity, natural gas, and telecommunication lines in the vicinity of the project site.

The installation or expansion of utility facilities would require excavation, trenching, soil movement, and other activities that are typical of development projects in Union City, as discussed in detail in this draft EIR as part of the assessment of overall project impacts. As discussed in Section 4.1, *Air Quality*, construction of the proposed project, including construction or expansion of utilities as a component of the proposed project, would not generate significant fugitive dust and criteria air pollutants, violate an air quality standard, contribute substantially to an existing or projected air quality violation, or result in a cumulatively considerable net increase in criteria air pollutants. As such, construction of the proposed project, with implementation of recommended mitigation measures, would not be expected to contribute a significant level of air pollution such that air quality within the San Francisco Bay Area Air Basin would be degraded.

As discussed in Section 4.10, *Noise*, construction of the proposed project, including construction or expansion of utilities as a component of the proposed project, would not result in a substantial temporary or periodic increase in ambient noise levels and would not violate the applicable local standards. Implementation of Mitigation Measure NOI-1, Construction Noise Control Plan, would reduce construction noise and reduce this impact to a less-than-significant level.

As discussed in Section 4.14, *Transportation*, construction of the proposed project, including construction or expansion of utilities as a component of the proposed project, would not cause significant impacts on the transportation and circulation network because construction activities would be temporary, and the flow of traffic would not be substantially disrupted.

In summary, impacts related to the construction of new utility facilities for the proposed project are addressed as part of the analysis of construction impacts for the proposed project as a whole. The installation or expansion of any utility facilities for the project would not result in additional significant impacts that are not otherwise disclosed elsewhere in this draft EIR.

Based on the analysis above, the project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects and therefore this impact would be ***less than significant***.

**Impact UT-2: The project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years. (Less than Significant)**

## **Construction**

Demolition and construction activities for the project would result in a temporary increase in water demand. Activities such as dust control, concrete mixing, equipment and site cleanup, irrigation for the establishment of plants and landscaping, and water line testing and flushing would occur periodically throughout the project's construction period. Water demand during construction would be minimal and temporary, and would be served utilizing the same infrastructure and sources described in the section below as would be utilized during project

operation. The water demand generated during project construction would be less than the water demand generated during project operation. Therefore, sufficient water supplies are available to serve the project during construction and this impact would be ***less than significant***.

## Operation

The proposed project would result in a net increase in water demand of approximately 103 acre-feet per year and an approximate peak day demand of 0.09 mgd.<sup>27</sup> Outdoor water conservation measures include installation and maintenance of water-efficient landscaping with low-usage plant material to minimize irrigation requirements. In addition, the proposed project would comply with all applicable water conservation (indoor and outdoor) measures, including Title 24, Part 6, California Energy Code baseline standard requirements for energy efficiency, based on the 2019 Energy Efficiency Standards requirements, California Department of Water Resources' Model Water Efficient Landscape Ordinance, and CALGreen.

Table 4.15-1 and Table 4.15-2 provide a summary of the future projections in terms of the water supply versus water demand from 2020 to 2040 under normal year conditions and critical dry year conditions, respectively. Table 4.15-3 provides a summary of the future projections in terms of the water supply versus water demand from 2036 to 2040 under multiple dry year conditions. According to the WSA, under normal year conditions, the ACWD's water supplies are projected to be sufficient to meet the future demands in the service area, including the project's demands. The ACWD's UWMP identifies that the ACWD may face water supply shortages during critically dry years. As described in the UWMP, the ACWD would look to secure additional supplies through a State Department of Water Resources drought water bank or similar water purchase/transfer program under these severe drought conditions. The ACWD may also implement a drought contingency plan, which would include provisions for the ACWD customers to cut back on water use, the magnitude of which would depend on the severity of the shortage. Because the project's water demands are consistent with the UWMP demand forecast, the development of the proposed project would not result in increased shortages from that which is already factored into ACWD's planning. However, because the ACWD anticipates potential future shortages under severe drought conditions, water supplies to the project may be cut back during these severe dry year conditions. The level of cut back to the project would be consistent with the rest of the ACWD's customers and would depend on the magnitude of the dry-year shortage facing the entire ACWD. Furthermore, according to the General Plan EIR, the ACWD has prepared a contingency plan that it can implement if faced with water shortages, which would allow it to reduce the level of water supplied by up to 50 percent, if needed. For example, ACWD can draw from reserve supplies to help meet short-term demands, can implement reduction in demand, and can augment its supply offsite to help meet demand during drought conditions. Therefore, the water demand generated by the proposed project would not exceed the capacity of the water utility and the proposed project would not require new entitlements. This impact would be ***less than significant***.

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<sup>27</sup> See Table 5 in **Appendix 4.15-1** for a detailed calculation of the water demand that would be generated by the proposed project.

**Impact UT-3: The project would not result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments. (Less than Significant)**

### Construction

Demolition and construction activities for the project would result in a temporary increase in wastewater generation as a result of on-site construction workers. Wastewater generation during construction would be minimal and temporary. In addition, construction workers typically use portable toilets and sinks, which do not flow to the wastewater conveyance system. Therefore, sufficient wastewater treatment capacity is available to serve the project during construction and this impact would be *less than significant*.

### Operation

The ATP treats approximately 25 mgd of wastewater from its service area and is currently permitted, and has the capacity to treat up to 33 mgd of dry-weather flow.<sup>28,29</sup> The USD has sufficient capacity in the area and does not foresee a problem serving the increase in flow that would be generated by the proposed project (approximately 504,000 gpd).<sup>30</sup> In addition, the ATP is currently undergoing long-term improvements in accordance with the USD's Enhanced Treatment and Site Upgrade Program, which is to be implemented across three phases (2028 for Phase I, 2040 for Phase II, and full buildout by 2058). Therefore, sufficient wastewater treatment capacity is available to serve the project during operation and this impact would be *less than significant*.

**Impact UT-4: The project would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. In addition, the proposed project would comply with federal, State, and local management and reduction statutes and regulations related to solid waste. (Less than Significant)**

### Construction

Demolition and construction activities for the project would result in a temporary increase in solid waste generation. Solid waste generation would occur periodically during construction. However, the increase would be minimal and temporary. In addition, the project would comply with the City's C&D Debris Recycling Ordinance, which requires recycling or reuse of 65 percent of all other C&D debris generated by the project. Therefore, the proposed project would not generate solid waste in excess of State or local standards or in excess of the capacity of local infrastructure during construction and would not conflict with solid waste regulations. This impact would be *less than significant*.

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<sup>28</sup> Union Sanitation District. 2018. *About Us*. Available: <https://www.unionsanitary.com/about-us/alvarado-treatment-plant>. Accessed: March 13, 2020.

<sup>29</sup> Woodard & Curran. 2019. *Union Sanitary District Enhanced Treatment and Site Upgrade Program*. August. Available: [https://www.unionsanitary.com/images/documents/ETSU/Enhanced\\_Treatment\\_and\\_Site\\_Upgrade\\_Final\\_Report.pdf](https://www.unionsanitary.com/images/documents/ETSU/Enhanced_Treatment_and_Site_Upgrade_Final_Report.pdf). Accessed: March 13, 2020.

<sup>30</sup> See Attachment 3 in **Appendix 4.15-2** for a detailed calculation of the wastewater that would be generated by the proposed project.

## Operation

According to the General Plan EIR, the average per capita solid waste disposal rate for the City between 2013 and 2017 is 0.56 tons per year. As discussed in Section 4.11, *Population and Housing*, the proposed project would result in 964 units and 2,420 residents on the site compared with existing conditions. Thus, the proposed project would result in a net increase in solid waste generation of approximately 1,355 tons per year, or 3.7 tons per day.

The permitted remaining capacity of the Altamont Landfill is 65.4 million tons, as reported by CalRecycle at the end of 2014. As shown in Table 4.15-4, the permitted capacity of the Altamont Landfill is 11,150 tons per day. Thus, the annual solid waste generated by the proposed project would be approximately 0.0002 percent of the permitted remaining capacity of the landfill and the daily solid waste generated by the proposed project would be approximately 0.03 percent of the permitted daily capacity of the landfill. The proposed project would not be a substantial contributor to the City's solid waste at the Altamont Landfill.

Businesses within the project site would be required to recycle materials that are recyclable. Alameda County Waste Management Authority Ordinance 2012-01 requires businesses generating four or more cubic yards of solid waste per week and all multi-family property owners (five units or more) to obtain a level of recycling service adequate for the amount of recyclables they generate. This local ordinance builds upon a California law, AB 341, which requires the commercial and multi-family accounts to either subscribe to recycling services, self haul, or arrange for periodic pick-up of recyclables. A property owner of a commercial business or multi-family residential dwelling may require tenants to separate their recyclable materials to aid in compliance with the law. The proposed project would provide triple bins and accommodate for composting, which would reduce the amount of organic waste that would decompose in landfills. The project would be required to comply with State and local laws mandating recycling of recyclable materials. There would still be residual waste requiring landfill disposal, but the incremental increase in solid waste sent to the Altamont Landfill would have an imperceptible effect on landfill capacity.

Based on the analysis above, the project would not generate solid waste in excess of State or local standards or in excess of the capacity of local infrastructure during operation and would not conflict with solid waste regulations; this impact would be *less than significant*.

## Cumulative Impacts

**Impact C-UT-1: The project, in combination with past, present, and reasonably foreseeable future projects, would not result in a significant cumulative impact on public services and recreation. (Less than Significant)**

The cumulative geographic contexts for utilities and service systems are the service territories of the utility providers. Over time, growth throughout the City will result in increased demand for water, wastewater treatment, solid waste disposal, natural gas, electricity, and telecommunications. As shown in Table 4.11-1 in Section 4.11, *Population and Housing*, ABAG projects the City's population will increase by approximately 6,740, from 73,105 in 2018 to 79,845 in 2040. In addition, the General Plan EIR projects the number of jobs in the City will increase by 17,805, from 19,528 in 2018 to 37,333 in 2040. Citywide growth would also generate increased demand for utilities. The approach to cumulative impacts is described in Section 4, *Environmental Impact Analysis*.



## Water

The cumulative projects would increase demands on water supplies as well as water infrastructure and treatment facilities. The reasonably foreseeable future projects that involve large commercial, residential, or office uses would be required to request a WSA from the ACWD to identify project-specific impacts.<sup>31</sup> ACWD has incorporated the demand from other development projects in its future water service projections. As discussed under Impact UT-2, under normal year conditions, the ACWD's water supplies are projected to be sufficient to meet the future demands in the service area, including the project's demands. The ACWD's UWMP identifies that the ACWD may face water supply shortages during critically dry years. As described in the UWMP, the ACWD would look to secure additional supplies through a State Department of Water Resources drought water bank or similar water purchase/transfer program under these severe drought conditions. The ACWD may also implement a drought contingency plan. In addition, the proposed project and the reasonably foreseeable future projects would comply with all applicable City and State water conservation measures, including Title 24, Part 6, the California Energy Code, with baseline standard requirements for energy efficiency; the 2019 Building Energy Efficiency Standards; and the 2019 CALGreen Code. Therefore, the water demand generated by the proposed project would not exceed the capacity of the water utility and the proposed project would not require new entitlements. For these reasons, the proposed project, in combination with other past, present, and reasonably foreseeable future projects, would not result in a significant cumulative water supply or water supply facilities impact. The cumulative impact would be *less than significant*.

## Stormwater

The cumulative projects would be likely constructed on infill sites in highly urbanized areas where there is a substantial amount of existing impervious surface area. All cumulative projects would be required to include post-construction stormwater management features, such as LID measures, to the extent feasible to reduce flows to pre-project conditions. New projects would be subject to the requirements of the San Francisco Bay MS4 Permit, Alameda Countywide Clean Water Program, General Plan and DIPSA Specific Plan policies, and local municipal codes. Thus, the proposed project, in combination with the reasonably foreseeable future projects, would not substantially increase stormwater peak flows compared to existing conditions and would not result in a significant cumulative stormwater facilities impact. The cumulative impact would be *less than significant*.

## Wastewater

The cumulative projects would increase the amount of water used and increase demands on wastewater infrastructure and treatment facilities. The USD SSMP focuses on proper management, operation, and maintenance of all parts of the sanitary sewer system to help reduce and prevent SSOs, as well as mitigate any SSOs that do occur over the next 20 to 40 years. The ATP is currently undergoing long-term improvements in accordance with the USD's Enhanced Treatment and Site Upgrade Program, which is to be implemented across three phases (2028 for Phase I, 2040 for Phase II, and full buildout by 2058). Similar to the proposed project, the City would require the proponents

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<sup>31</sup> A WSA is required for projects with (1) demand equivalent to 500 residential units, (2) a shopping/business center that employs more than 1,000 people or has a floor space of 500,000 square feet or greater, or (3) a commercial office building with more than 1,000 employees or floor space totaling 250,000 square feet or greater. If prepared for a project, the WSA determines if the existing water supply is adequate for a proposed project.

of each project to provide project-specific sewer capacity studies. For these reasons, the proposed project, in combination with other past, present, and reasonably foreseeable future projects, would not result in a significant cumulative wastewater generation and facilities impact. The cumulative impact would be *less than significant*.

### Natural Gas, Electricity, and Telecommunications

The cumulative projects would likely be constructed on infill sites in highly urbanized areas; it is anticipated that these projects would not substantially increase electric power, natural gas, and telecommunications demands. Similar to the proposed project, the cumulative projects would comply with all applicable City and State water conservation measures, including Title 24, Part 6, the California Energy Code, with baseline standard requirements for energy efficiency; the 2019 Building Energy Efficiency Standards; and the 2019 CALGreen Code. For these reasons, the proposed project, in combination with other past, present, and reasonably foreseeable future projects, would not result in a significant cumulative natural gas, electricity, and telecommunications demand and facilities impact. The cumulative impact would be *less than significant*.

### Solid Waste

In 2018, the most recent year from which data are available, the City generated a total of 37,408 tons of solid waste.<sup>32</sup> The City has a per-resident disposal rate target of 6.3 pounds per day and a per-employee disposal rate target of 22.6 pounds per day. In 2018, the City met these goals by achieving disposal rates of 2.8 pounds per day for residents and 6.4 pounds per day for employees.<sup>33</sup> The cumulative projects would incrementally increase the amount of solid waste generated by increasing the number of employees and residents in the City; excavation, demolition, and remodeling activities associated with growth would also increase total solid waste generation. However, the increasing rate of diversion citywide, achieved through recycling, composting, and other methods, would decrease the total amount of waste deposited in landfills. Similar to the proposed project, the cumulative projects would be required to comply with Alameda County Waste Management Authority Ordinance 2012-01 as well as other State and local laws mandating recycling of recyclable materials. Compliance with such regulatory requirements would reduce the project's and the cumulative projects' contribution to overall solid waste volumes generated during construction and operation. Given the future long-term capacity available at the Altamont Landfill and other area landfills, the proposed project and cumulative projects would be served by a landfill with adequate permitted capacity to accommodate their solid waste disposal needs. For these reasons, the proposed project, in combination with other past, present, and reasonably foreseeable future projects, would not result in a solid waste impact. The cumulative impact would be *less than significant*.

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<sup>32</sup> CalRecycle. 2018. *Local Government Information Center (LoGIC) Jurisdiction Disposal Tonnage Trend*. Jurisdiction: Union City. Available: <https://www2.calrecycle.ca.gov/LGCentral/AnnualReporting/ReviewReports/DisposalTonnageTrend>. Accessed: March 13, 2020.

<sup>33</sup> CalRecycle. 2019. *Jurisdiction Diversion/Disposal Rate Summary (2007–Current)*. Available: <https://www2.calrecycle.ca.gov/LGCentral/DiversionProgram/JurisdictionDiversionPost2006>. Accessed: March 13, 2020.

## 4.16 Less-than-Significant Impacts

In the course of evaluating certain topics included in the California Environmental Quality Act (CEQA) Guidelines Appendix G Checklist, the proposed Station East Residential/Mixed Use Project (proposed project) was found to have less-than-significant impacts or no impacts for some environmental resource topics due to the project type and location. This section briefly describes these effects, pursuant to CEQA Guidelines Section 15128. The proposed project was determined to have no impact or a less-than-significant impact for some environmental resource topics; these are addressed in the various Draft Environmental Impact Report (EIR) sections (i.e., Sections 4.1 through 4.15) to provide a more comprehensive discussion as to why impacts would be less than significant and to provide more detail for decision-makers and the general public.

Each topic in this section includes a brief description of the thresholds of significance, the methods for analysis, and an impact evaluation. Information about the proposed project's environmental setting is incorporated in the impact evaluations for the impact areas listed below, where necessary, to provide a baseline context for impact analyses.

As described in Section 4, *Environmental Impact Analysis*, subsequent to the drafting of this EIR, the applicant indicated that the residential units associated with proposed project would increase by 10, from 964 to 974 units. As described therein, the analysis presented throughout this EIR adequately accounts for the potential environmental impacts of the 974 new residential units.

### 4.16.1 Aesthetics and Parking Discussion (Senate Bill 743 and CEQA Section 21099)

Senate Bill (SB) 743 establishes certain exemptions (i.e., streamlining) for projects being analyzed under CEQA that are in areas served by transit that are consistent with a Specific Plan. SB 743 also eliminates the need to evaluate aesthetic and parking impacts of a project under certain circumstances (among other provisions). SB 743 streamlining options were not employed in this Draft EIR, but other provisions of SB 743 applied. Specifically, SB 743 and CEQA Section 21099(d) state that "aesthetics and parking impacts of a residential, mixed-use residential, or employment center project on an infill site located within a transit priority area shall not be considered significant impacts on the environment." Therefore, aesthetics and parking will no longer be considered when determining whether a project has the potential to result in significant environmental effects provided a project meets all of the three following criteria.

- The project is in a Transit Priority Area (TPA)<sup>1</sup>
- The project is on an infill site<sup>2</sup>
- The project is residential, mixed-use residential, or an employment center<sup>3</sup>

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<sup>1</sup> CEQA Section 21099(a)(7) defines a TPA as an area within 0.5-mile of a major transit stop that is existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program.

<sup>2</sup> CEQA Section 21099(a)(4) defines an infill site as a lot located in an urban area that has been previously developed, or on a vacant site where at least 75 percent of the perimeter of the site adjoins, or is separated only by an improved public right-to-way from parcels that are developed with qualified urban uses.

<sup>3</sup> CEQA Section 21099(a)(1) defines an employment center as a project located on property zoned for commercial uses with a floor area ratio of no less than 0.75 and that is located within a TPA.

The proposed project meets all three of these criteria. Criterion 1 is met due to the project's location. As discussed in Chapter 3, *Project Description*, the Union City Intermodal Station, which includes the UC Bay Area Rapid Transit (BART) station, is just south of the southern perimeter of the project site, across Cheeves Way (i.e., the Niles subdivision Union Pacific Railroad [UPRR] tracks), providing daily service to cities all over the Bay Area. Criterion 2 is met due to existing and surrounding land uses on, or near, the project site. The project site is occupied by existing and vacant industrial uses, surface parking, and an agricultural field. In addition, as shown in Figure 3-2 in Chapter 3, surrounding the project site are a variety of developed land uses, including industrial uses to the east and south, agricultural uses to the south, mixed-use commercial areas to the southwest, and residential areas on all sides of the site. Immediately north of the project site, across Decoto Road, are single-family residences. Single-family residences are also located east of the project site, as is Alameda County Fire Station 33, across 7<sup>th</sup> Street. In addition, the western portion of the project site is bordered by the Niles subdivision UPRR tracks; just beyond the tracks are the Union City BART station and several multi-family housing developments, including the Station Center Apartments, approximately five stories tall, and the Union Flats Apartments, approximately four stories tall. Finally, Criterion 3 is met due to the proposed land uses at the project site, which consist of residential and mixed-use residential.

Due to the proposed project's consistency with SB 743 criteria, aesthetics and parking are not considered to be impacts under CEQA. For informational purposes only, the following is a brief discussion of aesthetics impacts with implementation of the project.

#### **4.16.1.1 Impacts on Scenic Vistas and Scenic Resources within a State Scenic Highway**

The project site and surrounding area is relatively flat. As a result, the site is visible only from the immediate area. However, the *2040 Union City General Plan Update Environmental Impact Report*<sup>4</sup> (General Plan EIR) identifies several scenic vistas within the City, with the closest vista to the project site being the hillside area. The *City of Union City 2040 General Plan* (General Plan) would maintain the existing designation of the hillside area, and therefore would not allow new development in this area to occur. Future development within the City would occur within existing urbanized areas, and generally would not affect scenic views of the hillside area. However, new structures that may be incorporated as part of future development may have the potential to be scaled or oriented in such a way that it may block views of the hillside area from certain locations within the City. Nonetheless, the General Plan specifically lays out goals and policies to minimize impacts on the scenic vistas that may result from future development. In addition, the General Plan states that even though development within the Station District has the potential to obstruct views of the hillside area, the district area has a designation as a Priority Development Area (PDA) and therefore is allowed to have higher density/intensity development, and would be subject to the standards that govern PDAs. A portion of the project site is located in a PDA. Therefore, the proposed project would have no impact on scenic vistas due to consistency with the General Plan and its location within an area of PDA designation.

As discussed in the General Plan EIR, the California Department of Transportation (Caltrans) has designated State Route (SR) 84 as a scenic highway. However, only a small portion of SR 84 coincides with the City limits in the hillside area and does not pass into the City. The General Plan maintains the existing designation within this hillside area and does not allow the development of this area. Therefore, there would be no impact on scenic vistas or resources within a State scenic highway.

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<sup>4</sup> Rincon Consultants, Inc. *2040 Union City General Plan Update Environmental Impact Report*. November 2019.

#### 4.16.1.2 Impacts on Visual Character or Quality

As discussed in Chapter 3, *Project Description*, the project is characterized by industrial buildings and disked fields that include a mix of vacant and underutilized buildings. The existing buildings and sites that are part of the project site that front onto 7<sup>th</sup> Street and Decoto Road are outdated and unmaintained and the architectural features are not consistent with the newer buildings to the south of Cheeves Way. In addition, the un-activated and underutilized street frontages and limited street trees do not generally make the area a desired pedestrian destination.

Implementation of the proposed project would result in the demolition of all existing buildings and the construction of 34 new buildings. Retail uses are proposed along the Decoto Road frontage, enhancing the street-level pedestrian experience. Plazas would be located at Planning Areas 1 and 2. First floor retail and plazas with outdoor seating areas would create a more interesting and active pedestrian environment. Residential uses on the floors above the ground-floor retail would likely enhance the visual diversity of the street scene as a result of varying façade treatments. The proposed project would include an approximately 870-foot-long paseo that would bisect the project site in a north-south direction. In addition, as shown in Figure 3-6, in Chapter 3, the project would also incorporate three community parks, which would include a range of amenities. In total, the proposed project would include approximately 9.83 acres of open space, consisting of 1.83 acres of public parks and a paseo, 1.95 acres of private landscaping, 2.25 acres of semi-private and private open space, 0.96 acres of streetscape landscaping, 1.42 acres of bio-retention areas, and 1.42 acre of retail plazas and promenade.

The proposed project would remove 68 trees, 47 of which are existing protected trees at the project site. However, the conceptual landscape plan shows that the proposed project would include 735 total trees, when accounting for the trees to be removed. These trees would be located throughout the project site.

The proposed project would result in a mixed-use residential development on a site that currently contains relatively low-intensity of use. The 34 proposed buildings would be three to five stories tall, approximately two to four stories taller than the buildings that currently exist on the project site. In addition, building coverage of the project site would substantially increase over current conditions, resulting in a more urban appearance.

The proposed project would result in a substantial change in the visual character of the project site due to the increase in development intensity. These changes would be highly visible from streets surrounding the project site, including 7<sup>th</sup> Street, Decoto Road, and Zwissig/Bradford Way. Although the project would increase the height and building mass at the project site, this would help fill in the streetscape voids left by vacant parcels previously occupied by industrial uses along 7<sup>th</sup> Street.

Based on the context of the project site, the scale of the proposed project would be appropriately scaled to nearby multi-family residential development. The project site is visually separated from the single-family residential neighborhoods to the west and north by Decoto Road and 7<sup>th</sup> Street, respectively. The proposed buildings are of a size and scale that are similar to existing buildings across the UPRR tracks. The taller buildings would be consistent with the General Plan's goals and policies and the Specific Plan's objectives for increased use of underutilized properties with the intent to locate higher density development within the vicinity of the Intermodal Station. Furthermore, the design of the exterior façade of each of the proposed buildings would be subject to the City's Site Development Review process prior to issuance of building permits to ensure the project would be aesthetically pleasing and similar in design and appearance to other recently constructed buildings and developments in the City.

Finally, the new residential and employee population would increase activity within and around the project site, increasing the visual appeal of 7<sup>th</sup> Street and Decoto Road. Development of the project site with commercial and residential uses would result in the creation of a visual transition between the more intense transit area land uses and the less intense residential uses to the north and west of the project site. In addition, the project would create a more consistent development pattern with the commercial uses along Decoto Road and the greater Union City area.

#### **4.16.1.3 Light and Glare**

The project would include outdoor security and wayfinding lighting on the project site (e.g., along walkways and driveways, at entrances, and in parking areas). Outside lighting would be comparable in brightness to ambient lighting in the surrounding developed, urban area. Increased lighting on the project site, relative to existing outdoor lighting, would increase overall illumination in the area. The design of the exterior façade of each of the proposed buildings would be subject to the City's Site Development Review process prior to issuance of building permits to ensure the project would not create a substantial new source of light or glare for adjacent users.

### **4.16.2 Agricultural and Forest Resources**

#### **4.16.2.1 Thresholds of Significance**

California Environmental Quality Act (CEQA) Guidelines Appendix G (14 California Code of Regulations [CCR] 15000 et seq.) identifies the significance criteria to be considered in determining whether a project could have significant impacts on existing agricultural and forest resources. Would the project:

- Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?
- Conflict with existing zoning for agricultural use or a Williamson Act contract?
- Conflict with existing zoning for, or cause rezoning of, forestland (as defined in Public Resources Code Section 12220[g]), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104[g])?
- Result in a loss of forestland or conversion of forestland to non-forest use?
- Involve other changes in the existing environment that, because of their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forestland to non-forest use?

#### **4.16.2.2 Methods for Analysis**

Information and the analyses conducted in this section are based on the *Alameda County Important Farmland Map* generated by the California Department of Conservation Farmland Mapping and Monitoring and the General Plan EIR.

### 4.16.2.3 Impacts

**Impact AG-1: The project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use. (No Impact)**

The project site is in a developed urban area of the City with a mix of industrial, mixed-use commercial, residential, and other uses. As discussed in Section 4.2, *Biological Resources*, agriculture, the predominant land cover type on the project site, consists of a wheat field in the southern portion of the project site, west of Bradford Street and north of the UPRR tracks. However, the project site is designated as “Urban and Built-up Land,” which is defined as land with a building density of at least one unit to 1.5 acres or six structures per 10 acres, as well as land used for residential, industrial, and commercial purposes, institutional facilities, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, and water control structures on the *2016 Alameda County Important Farmland* map.<sup>5</sup> In addition, no land adjacent to or in the vicinity of the project site is designated or used as farmland. Therefore, the proposed project would have **no impact** on Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.

**Impact AG-2: The project would not conflict with existing zoning for agricultural use or a Williamson Act contract. (No Impact)**

The project site is zoned as Research and Development Campus (RDC), is not zoned as farmland of any type, and is not the subject of a Williamson Act contract, a statewide agricultural land protection program, as there are no Williamson Act contracts within the City.<sup>6,7,8</sup> Therefore, the proposed project would not conflict with existing zoning for agricultural use or a Williamson Act contract and there would be **no impact**.

**Impact AG-3: The project would not conflict with existing zoning for, or cause rezoning of, forestland (as defined in Public Resources Code Section 12220[g]), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104[g]). (No Impact)**

According to California Public Resources Code Section 12220[g], “forestland” is land than can support 10 percent native tree cover of any species, including hardwoods, under natural conditions and allow management of one or more forest resources, including resources with timber, aesthetics, fish and wildlife, biodiversity, water quality, recreational, or public benefits. Timberland is defined as land,

<sup>5</sup> California Department of Conservation. 2018. *Alameda County Important Farmland 2016*. August. Available: <ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/>. Accessed: March 5, 2020.

<sup>6</sup> City of Union City. n.d. *Union City Zoning Ordinance Zoning Map*. Available: <https://www.unioncity.org/DocumentCenter/View/1263/Zoning-Map---Union-City?bidId=>. Accessed: March 5, 2020.

<sup>7</sup> The five agricultural types (“Farmland”) include Prime Farmland, which consists of land that is able to sustain long-term crop production; Farmland of Statewide Importance, which refers to lands with a similar use, and irrigation system, and the physical characteristics of Prime Farmland but with minor shortcomings, such as steeper soils; Unique Farmland, which consists of lands with lesser-quality soils but capable of producing California’s leading agricultural cash crops; Farmland of Local Importance, which are lands that are designated by individual counties, and are not irrigated; and Grazing Land, which consists of lands that are suited for livestock grazing.

<sup>8</sup> City of Union City. 2019. *2040 Union City General Plan Update, Ch. 4.—Environmental Impact Analysis*. June 2019. Available: <http://www.uc2040.com/documents/>. Accessed: March 5, 2020.

other than that owned by the federal government or designated by the State Board of Forestry and Fire Protection as experimental forestland, that is available or capable of growing a crop of trees of any commercial species to produce lumber and other forest products, including Christmas trees (per California Public Resources Code Section 4526). As discussed above, the project site is in an urbanized area of the City and is zoned as RDC. In addition, there are no lands adjacent to the project site that are zoned as forestland or timberland.<sup>9</sup> Therefore, the proposed project would not conflict with existing zoning for timberland or forestland and there would be ***no impact***.

**Impact AG-4: The project would not result in a loss of forestland or conversion of forestland to non-forest use. (No Impact)**

The project site is not considered forestland or timberland. In addition, the project site is not a forest resource, nor are there forest resources in the surrounding area.<sup>10</sup> Therefore, the proposed project would not result in the loss or conversion of forestland and there would be ***no impact***.

**Impact AG-5: The project would not involve other changes in the existing environment that, because of their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forestland to non-forest use. (No Impact)**

As mentioned above, the project site is within a developed urban area of the City, and is comprised of existing and vacant industrial uses, surface parking lots, asphalt or concrete storage lots, railroad spur improvements, and vacant and unpaved areas, including agricultural, annual grassland, landscaped, and ruderal areas. Portions of the project site were previously used for agricultural purposes; however, the project site has not been used for active agricultural uses for many years. The project site is not designated as agricultural land under the General Plan or the City's Zoning Code. There are no forest uses within or adjacent to the project site and no agricultural uses adjacent to the project site. Although the project would include infrastructure improvements, these improvements would be completed in an already urbanized area of the City and would not extend into an undeveloped area. In addition, the project would not result in the development of urban uses on a previously undeveloped greenfield site or other physical changes that would result in the conversion of farmland to non-agricultural uses or forestland to non-forest uses. Therefore, the proposed project would have ***no impact*** on agricultural and forestry resources.

## 4.16.3 Mineral Resources

### 4.16.3.1 Thresholds of Significance

CEQA Guidelines Appendix G (14 California Code of Regulations [CCR] 15000 et seq.) identifies the significance criteria to be considered in determining whether a project could have significant impacts on existing mineral resources. Would the project:

- Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?
- Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

<sup>9</sup> City of Union City. n.d. *Union City Zoning Ordinance Zoning Map*. Available: <https://www.unioncity.org/DocumentCenter/View/1263/Zoning-Map---Union-City?bidId=>. Accessed: March 5, 2020.

<sup>10</sup> Ibid.



### 4.16.3.2 Methods for Analysis

Information and the analyses conducted for this section are based on the General Plan and the California Department of Conservation, Division of Mines and Geology Mineral Lands Classification system in accordance with the Surface Mining and Reclamation Act of 1975.

### 4.16.3.3 Impacts

**Impact MIN-1: The project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State. (No Impact)**

The project site is within an area of the City that has been zoned by the State as Mineral Resource Zone 1 (MRZ-1) with respect to aggregate materials.<sup>11</sup> Geologic information on MRZ-1 areas indicates that no significant mineral deposits are present or little likelihood exists for their presence.<sup>12</sup> The area is not known to support significant mineral resources of any type, and no mineral resources are currently being extracted in the City. In addition, the Office of Mine Reclamation's list of mines (i.e., the Assembly Bill [AB] 3098 List) that are regulated under the Surface Mining and Reclamation Act does not include any mines within the City.<sup>13</sup>

Because the project site is in a developed urban area and does not contain any known or designated mineral resources or resource recovery sites, implementation of the proposed project would have **no impact** on known mineral resources of regional or State value.

**Impact MIN-2: The project would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. (No Impact)**

The General Plan EIR acknowledges a known deposit of regionally significant minerals that exist in the hillside area near O'Connell Lane, and east of SR 238 (i.e., approximately 0.75 mile north of the project site). However, under the General Plan, this area would maintain its current designation of Residential (3-6 du/ac) and Private Institutional (PI) land uses and would not allow mining activity to occur. Based on the distance between the project site and this regionally significant mineral deposit, the proposed project would not encroach into the mineral deposit area, and therefore would have no potential to adversely affect the availability of known locally important mineral resource recovery sites; there would be **no impact**.

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- <sup>11</sup> California Department of Conservation, Division of Mines and Geology. 1996. *Revised Mineral Land Classification Map, South San Francisco Bay Production-Consumption Region, Newark Quadrangle*. Available: [ftp://ftp.consrv.ca.gov/pub/dmg/pubs/ofr/OFR\\_96-03/OFR\\_96-03\\_Plate2.pdf](ftp://ftp.consrv.ca.gov/pub/dmg/pubs/ofr/OFR_96-03/OFR_96-03_Plate2.pdf). Accessed: March 5, 2020.
- <sup>12</sup> California Division of Mines and Geology. 1996. *Open File Report 96-03—Update of Mineral Land Classification: Aggregate Materials in the South San Francisco Bay Production-Consumption Region*. Available: [ftp://ftp.consrv.ca.gov/pub/dmg/pubs/ofr/OFR\\_96-03/OFR\\_96-03\\_Text.pdf](ftp://ftp.consrv.ca.gov/pub/dmg/pubs/ofr/OFR_96-03/OFR_96-03_Text.pdf). Accessed: March 5, 2020.
- <sup>13</sup> California Department of Conservation. 2020. *AB 3098 List*. Available: <https://www.conservation.ca.gov/dmr/smara-mines>. Accessed: March 5, 2020.

## 4.16.4 Wildfire

### 4.16.4.1 Thresholds of Significance

CEQA Guidelines Appendix G (14 California Code of Regulations [CCR] 15000 et seq.) identifies the significance criteria to be considered in determining whether a project could have significant impacts on wildfire. Would the project:

- Substantially impair an adopted emergency response plan or emergency evacuation plan?
- Due to slope, prevailing winds, or other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?
- Require the installation or maintenance of associated infrastructure, such as roads, fuel breaks, emergency water sources, power lines, or other utilities, that may exacerbate fire risk or that may result in temporary or ongoing impacts on the environment?
- Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

### 4.16.4.2 Methods for Analysis

Information and the analyses conducted for this section are based on the California Department of Forestry and Fire Protection's (CAL FIRE) Fire Hazard Severity Zones Maps, and the General Plan.

### 4.16.4.3 Impacts

#### **Impact WF-1: The project would not substantially impair an adopted emergency response plan or emergency evacuation plan. (Less than Significant)**

Although the City does not have an adopted emergency evacuation plan, it has adopted, and prepared in partnership with the Alameda County Fire Department (ACFD) a *Comprehensive Emergency Management Plan* (CEMP) that details how the City will effectively prepare for, respond to, recover from, and mitigate against disasters.

The project would not include any changes to the existing public roadways that provide emergency access to the site or surrounding area. The project proposes demolition of the buildings and surface parking lots, and development of up to 964 new residential units, residential amenity space, commercial space, private open space, parking, and corridor space. Existing vehicle ingress and egress would be maintained along Decoto Road, 7<sup>th</sup> Street, Bradford Way, and Zwissig Way. The project would improve emergency access to the project site by incorporating two additional entrances on Decoto Road (i.e., at 8<sup>th</sup> and 9<sup>th</sup> Streets), one additional entrance on 7<sup>th</sup> Street (i.e., at K Street), and three additional entrances on Bradford Way (i.e., at M Street, 8<sup>th</sup> Street, and 9<sup>th</sup> Street). In addition, the project would be designed to comply with the City's Municipal Fire Code requirements that require on-site access for emergency vehicles. Furthermore, the project would be subject to review and approval by the ACFD to ensure that all emergency access standards are met. Emergency vehicle access to the project site would be provided by Decoto Road, 7<sup>th</sup> Street, Bradford Way/Zwissig Way, and all internal streets within the project site.

During project construction, traffic levels would increase minimally, which is not expected to degrade traffic operations. Furthermore, emergency response access during the construction period would not be significantly impeded. The project would not involve the development of structures that would impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. No existing streets would be closed, rerouted or substantially altered. The maximum of 2,420 new residents and 75 new employees (see Section 4.11, *Population and Housing*) would not increase demand on emergency response or operations significantly during an evacuation. Therefore, the project would not interfere with the CEMP or any evacuation route. Adequate access to the project site and surrounding area would be maintained. Therefore, the proposed project would have a ***less than significant*** impact on any statewide or locally adopted emergency response plan or emergency evacuation plan.

**Impact WF-2: The project would not due to slope, prevailing winds, or other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. (No Impact)**

The project site is in a developed urban area of the City. The topography of the project site and surrounding area is relatively flat. The project site is currently occupied by existing and vacant industrial uses, surface parking lots, and vacant disked fields. The project site is surrounded primarily by a mix of industrial, mixed-use commercial, and residential land uses.

According to CAL FIRE, the City, including the project site, is not in a Very High Fire Hazard Severity Zone (VHFHSZ).<sup>14</sup> The nearest VHFHSZ is approximately 5 miles north of the project site, adjacent to the City limits around the hillside area east of SR 238.

Because the project site is not in or near a VHFHSZ, the risk of wildfire is low. In addition, the buildings proposed for construction on the project site would be separated by paved parking areas, landscaping, and building setbacks that reduce wildfire risks. Furthermore, the project site would be properly irrigated and maintained, which would also reduce the risk of wildfire. Therefore, there would be no risk with respect to exposing project employees and residents to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire, and there would be ***no impact***.

**Impact WF-3: The project would not require the installation or maintenance of associated infrastructure, such as roads, fuel breaks, emergency water sources, power lines, or other utilities, that may exacerbate fire risk or that may result in temporary or ongoing impacts on the environment. (Less than Significant)**

The project would be served by existing water, wastewater, electrical, and natural gas infrastructure. The project would install new service laterals and mains that would connect to existing public utility mains and services within Decoto Road, Bradford Way/Zwissig Way loop, and 7<sup>th</sup> Street, which would remain in place. The project would not require installation or maintenance of any infrastructure that would exacerbate fire risk. The project, including any infrastructure upgrades, would be completed in conformance with the Union City Municipal Fire Code (Chapter 15.20) to reduce potential fire hazards. Furthermore, any road or infrastructure improvements required by the project would occur in an

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<sup>14</sup> California Department of Forestry and Fire Protection. 2007. *Alameda County Fire Hazard Severity Zones in SRA*. Available: <https://osfm.fire.ca.gov/divisions/wildfire-planning-engineering/wildland-hazards-building-codes/fire-hazard-severity-zones-maps/>. Accessed: March 5, 2020.

already developed area of the City, where large tracts of vegetation cover are not present. Consequently, the risk of wildfire would not be exacerbated. Therefore, the proposed project would not require installation or maintenance of infrastructure that would exacerbate fire risk or result in temporary or ongoing impacts on the environment, and the impact would be *less than significant*.

**Impact WF-4: The project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. (No Impact)**

As described above, the project would be an infill development project located on several developed parcels that are surrounded by a mix of industrial, mixed-use commercial, and residential land uses. The topography of the project site and surrounding area is relatively flat. The project site would be graded and leveled prior to construction. In addition, the project would include installation of additional on-site vegetation and ground cover, as well as bioretention areas, thereby reducing on-site runoff from current conditions. Therefore, the proposed project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes, and there would be *no impact*.

**Impact C-WF-1: The project, in combination with past, present, and reasonably foreseeable future projects, would not result in a significant cumulative impact on a statewide or locally adopted emergency response plan or emergency evacuation plan. (Less than Significant)**

The cumulative geographic context for wildfire is the City. The approach to cumulative impacts is described in Section 4, *Environmental Impact Analysis*.

With implementation of the proposed project, approximately 75 employees would work at the project site, a net increase of 67 to 70 employees. As discussed in Section 4.11, *Population and Housing*, the General Plan EIR estimates that there will be approximately 84,477 people in Union City in 2040, an increase of approximately 11,486 from 2018 levels. The new employees generated by the proposed project and the cumulative projects may increase demand during an evacuation. Implementation of the project and other buildout that may occur would not impair the ACFD's CEMP and emergency evacuation routes. Furthermore, like the project, any future development that would occur would be required to comply with the City's Municipal Fire Code requirements, and would be subject to review and approval by the ACFD to ensure that all emergency access standards are met. For these reasons, the proposed project, in combination with other past, present, and reasonably foreseeable future projects, would not result in a significant cumulative impact on a statewide or locally adopted emergency response plan or emergency evacuation plan, and the cumulative impact would be *less than significant*.

## 5.1 Introduction

This chapter discusses the following topics in relation to the proposed project: significant environmental effects that cannot be avoided if the project is implemented, significant irreversible environmental changes that would result if the proposed project is implemented, growth inducement potential, and areas of known controversy and issues to be resolved.

As described in Section 4, *Environmental Impact Analysis*, subsequent to the drafting of this EIR, the applicant indicated that the residential units associated with proposed project would increase by 10, from 964 to 974 units. As described therein, the analysis presented throughout this EIR adequately accounts for the potential environmental impacts of the 974 new residential units.

## 5.2 Significant and Unavoidable Environmental Impacts

California Environmental Quality Act (CEQA) Section 21100(b)(2)(A) requires that a Draft Environmental Impact Report (Draft EIR) identify any significant environmental effects that cannot be avoided if the project is implemented. Many impacts identified for the project would either be less than significant or could be mitigated to a less-than-significant level. No impacts have been identified as significant and unavoidable.

### 5.2.1 Significant Irreversible Impacts

Section 15126.2(c) of the CEQA Guidelines requires that a Draft EIR evaluate “significant irreversible environmental changes which would be caused by the proposed project should it be implemented,” and it identifies irreversible environmental changes as those involving a large commitment of nonrenewable resources or irreversible damage resulting from environmental accidents.

Such significant irreversible environmental changes may include current or future uses of non-renewable resources, secondary or growth-inducing impacts that commit future uses of nonrenewable resources, and secondary or growth-inducing impacts that commit future generations to similar uses. According to CEQA Guidelines Section 15126.2(c), irretrievable commitments of resources should be evaluated to ensure that such current consumption is justified. In general, such irreversible commitments include the use of resources such as energy and the materials to construct a project as well as the energy and natural resources (including water) that would be required to sustain the project and its inhabitants or occupants over the usable life of the project.

No significant environmental damage, such as that resulting from accidental spills or the explosion of a hazardous material, is anticipated with implementation of the proposed project. Compliance with federal, State, and local regulations as well as recommended mitigation measures would ensure that construction and operation activities at the project site would not result in the release of

hazardous materials into the environment and that associated impacts would be less than significant (refer to Section 4.7, *Hazards and Hazardous Materials*). As such, no irreversible changes, such as those that may occur from construction of a large-scale mining project, or other industrial project, would result from development of the project.

Consumption of nonrenewable resources includes increased energy consumption, conversion of agricultural lands, and lost access to mining reserves. The project site is located in a developed area of the City of Union City (City). Agricultural land is the predominant existing land cover on the project site (accounting for approximately 46.5 percent of the site); refer to Sections 4.2, *Biological Resources*, and 4.16, *Less-Than-Significant Impacts*, (specifically, see section 4.16.2.3) for more information. With the project, these agricultural lands, which are currently inactive wheat fields, would be converted to non-agricultural uses. The *City of Union City 2040 General Plan* (General Plan) does not identify or delineate any resource recovery areas within the City. The project site does not contain known mineral deposits and is not a locally important mineral resource recovery site; thus, development of the project would not result in the loss of access to mining reserves; refer to Section 4.16, *Less-Than-Significant Impacts*, for more information.

Demolition and construction associated with the project, as well as operations, would require the use of energy, including energy produced from nonrenewable resources such as oil and gasoline. As discussed in Section 4.4, *Energy*, during construction the project would consume energy and would generate GHG emissions and criteria air pollutants. Construction activities would use the most energy-efficient equipment available to meet State and local goals for criteria air pollutants and GHG emissions reductions, and would not have a measurable effect on regional energy supplies or on peak energy demand, resulting in a need for additional capacity. Additionally, as discussed in Section 4.1, *Air Quality*, Mitigation Measure AQ-2a, Require Low-VOC Coatings during Construction, would reduce construction-related reactive organic gases to below the Bay Area Air Quality Management District's (BAAQMD's) threshold. In addition, Mitigation Measure AQ-2b, Use Clean Diesel-Powered Equipment during Construction to Control Construction-Related NO<sub>x</sub> Emissions, and Mitigation Measure AQ-2c, Require Use of Diesel Trucks with 2010-Compliant Model Year Engines, would reduce construction-related NO<sub>x</sub> to below BAAQMD's threshold. Mitigation Measure AQ-2d, Implement BAAQMD Basic Construction Mitigation Measures, which includes BMPs to reduce fugitive dust, would be implemented to reduce impacts from construction-related fugitive dust emissions, including any cumulative impacts. Lastly, Mitigation Measure GHG-1a, Require Implementation of BAAQMD-recommended BMPs, would be implemented to avoid any conflict with statewide emission reduction goals. Therefore, as a temporary activity, construction of the proposed project would not be considered inefficient or wasteful.

Energy consumption would also occur during operation of the proposed project. Once operational, the project would generate vehicle trips, which would consume gasoline and diesel (and to some extent electricity). The proposed project would meet the screening thresholds set by the Governor's Office of Planning and Research (OPR) related to vehicle miles traveled (VMT) due to the site's proximity to a high-quality transit corridor. Impacts to VMT would be less than significant. In addition, the project site has convenient access to existing public transit and would include local retail options; it is also pedestrian and bike friendly. In addition, as discussed in Section 4.6, *Greenhouse Gas Emissions*, the proposed project would result in less-than-significant impacts associated with an increase in GHG emissions during construction and conflict with measures adopted for the purpose of reducing such emissions with implementation of Mitigation Measure GHG-1a. Also, the use of gasoline, diesel, and electricity (depending on the electricity's source) to power vehicles with the project would represent an irreversible use of those resources.

However, based on compliance with Title 24 conservation standards specified in the California Code of Regulations, and the assessment of projected demand for energy resources, operation of the proposed project would not have a measurable effect on regional energy supplies or on peak energy demand, resulting in a need for additional capacity; refer to Section 4.15, *Utilities and Service Systems*, for more information. The proposed project would not require the construction of major new utility lines to deliver natural gas or electricity because these services are already provided in the area. The project would, however, require new and upgraded water, wastewater, and storm drain pipelines within the boundaries of the project site. Build out of the project would require the use of nonrenewable materials such as steel, copper, and other metals. The source metals used, unless they come from recycled materials, would represent an irreversible use of resources.

### 5.3 Growth Inducement

CEQA Guidelines Section 15126.2(d) states that an EIR should discuss "...the ways in which the Project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment." Growth can be induced in a number of ways, including through the elimination of obstacles to growth, through the stimulation of economic activity within the region including the generation of significant employment opportunities, or through precedent-setting action. CEQA requires a discussion of how a project could increase population, employment, or housing in the areas surrounding the project as well as an analysis of the infrastructure and planning changes that would be necessary to implement the project.

This section of the EIR discusses the manner in which the project could affect growth in the City and the larger Bay Area. In accordance with CEQA Guidelines Section 15126.2, this discussion of growth inducement is not intended to characterize the project as necessarily beneficial, detrimental, or of little significance to the environment. This growth inducement discussion is provided for informational purposes so that the public and local decision-makers have an understanding of potential long-term growth implications of the project. Although CEQA requires disclosure of growth inducement effects, an EIR is not required to anticipate or mitigate the effects of a particular project on growth in other areas. Growth inducement has the potential to result in an adverse impact if the growth is not consistent with or accommodated by the land use plans and growth management plans and policies for the area affected. Since the general plan of a community defines the location, type, and intensity of growth, it is the primary means of regulating development and growth in that community.

In discussing growth inducement, it is useful to distinguish between direct and indirect growth. Direct growth occurs on a project site as a result of new facilities (i.e., buildings) being constructed, or an increase in developed space. As discussed in Chapter 3, *Project Description*, direct growth associated with the project would amount to the growth associated with the proposed development of up to 964 new residential units and other associated amenities, and approximately 30,800 square feet (sf) of commercial space, for a total development of approximately 1.8 million sf among 34 buildings.

Indirect growth occurs beyond a project site but is stimulated by the project's direct growth. Indirect growth is tied to increased direct and indirect investment and associated spending, such as expenditure patterns of employees associated with the project, with the new direct growth. For

example, if a project were implemented, future workers would spend money in the local economy, and the expenditure of that money would result in additional jobs. The indirect jobs generated by a project (referred to as the “multiplier effect”) tend to be relatively near the places of employment but may occur at more distant locales as well. When CEQA refers to induced growth, CEQA means all growth—direct, indirect, and otherwise defined.

As discussed in Section 4.11, *Population and Housing*, the project would not induce substantial unplanned population growth in the area, directly or indirectly. The proposed project would result in a net increase of 964 housing units and 2,420 residents compared to existing conditions. This number of housing units and estimated direct population increase associated with the project would be within the population increase projected by the General Plan and would contribute significantly to the City’s regional housing needs allocation.

During construction, the project would result in a temporary increase in the number of construction-related job opportunities in the local area; which would not be permanent and would not change the current ratio of 0.95 jobs per employed resident. Accordingly, employment opportunities provided by project construction would not generate substantial population growth. During operations, approximately 75 employees would work at the project site, which is an insignificant increase in the number of jobs available in the City, and would actually help to balance the number of jobs and employed residents within the City. The proposed project would be consistent with employment projections in the General Plan, and it would not contribute to a worsening of the jobs/housing ratio beyond that of the current General Plan.

The proposed project would require the extension of certain utilities, which may indirectly induce growth in adjacent areas. However, in this instance, the proposed project is an infill development, and the project site and surrounding areas are already developed with residential, industrial and commercial land uses. All proposed infrastructure would be sized to meet the needs of the proposed project, and would not lead to unplanned indirect population growth or the need for additional housing beyond what is expected to be generated to complete project build-out. As such, the project would not indirectly induce unplanned population growth in the project area.

The analysis in Section 4.11, *Population and Housing*, also evaluates cumulative population and housing growth resulting from the project in combination with reasonably foreseeable future projects and background growth. Cumulative analysis found that the proposed project, in combination with other projected growth in the City and in Alameda County (County), would increase population and housing in the region. However, the net increase in the number of new residents with the proposed project (i.e., approximately 2,420 net new residents) falls within the planning projections for the City and county. Therefore, the proposed project would not result in a cumulatively considerable impact to direct population growth. Indirect population growth is not anticipated because construction would be temporary and construction workers would be drawn from the construction employment labor force already residing in the project area and surrounding areas. In addition, any utility improvements for future projects would be sized to meet the needs of each individual proposed project, and would not lead to unplanned indirect population growth or the need for additional housing beyond what is expected to be generated under each of the full project build-outs. Therefore, the proposed project would not result in a cumulatively considerable impact to indirect population growth.



## 5.4 Cumulative Impacts

CEQA Guidelines Section 15355 defines cumulative impacts as “...two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” The combination of the proposed project with other foreseeable projects in the vicinity or region affected by the project defines the cumulative scenario. Cumulative impacts and the project’s contribution to cumulative impacts are addressed for each individual topic in Sections 4.1 through 4.16 of this Draft EIR.

These sections identify feasible mitigation measures, where necessary and appropriate, to reduce the project’s cumulatively considerable contributions to significant cumulative impacts to less than cumulatively considerable. These sections also identify those cumulative impacts for which the project’s contribution would remain cumulatively considerable, even with implementation of feasible mitigation measures; refer to the individual sections of this Draft EIR for a discussion of cumulative impacts.

## 5.5 Areas of Known Controversy and Issues to Be Resolved

Publication of the Notice of Preparation (NOP) for the EIR initiated a 30-day public comment period that began on March 10, 2020, and ended on April 9, 2020. During the NOP review and comment period, two letters and emails were submitted to the City’s Economic & Community Development Department by interested parties. One letter was from Union Pacific Railroad and included comments pertaining to noise and vibration, drainage, and trespassing. The second comment letter was from the Alameda County Water District and included comments pertaining to dewatering, hazardous material contamination, and utility infrastructure.

Due to coronavirus disease 2019 (COVID-19) concerns, the CEQA scoping meeting for the project scheduled for Monday, March 23, 2020 was cancelled. In lieu of the meeting, a recorded scoping presentation was posted to the City’s website to facilitate responses to the NOP. The Economic & Community Development Department has considered the comments made by the public in preparation of this Draft EIR for the proposed project. The NOP and all written responses to the NOP are provided in **Appendix 2**.



## 6.1 Introduction

This chapter presents the alternatives analysis for the proposed project. It includes a discussion of the California Environmental Quality Act (CEQA) requirements for an alternatives analysis and the methodology used for the selection of alternatives, with the intent of developing potentially feasible alternatives that avoid or substantially lessen the significant impacts identified for the proposed project while still meeting most of the basic project objectives. This chapter identifies a reasonable range of alternatives that meet the above criteria.

The alternatives are evaluated for their comparative merits with respect to minimizing adverse environmental effects. After identifying the alternatives, the chapter evaluates the alternatives' impacts compared to existing environmental conditions and compared to the impacts of the proposed project. Based on this analysis, this chapter then identifies the environmentally superior alternative. Finally, it describes other alternative concepts that were considered but eliminated from detailed consideration and the reasons for their elimination.

As described in Section 4, *Environmental Impact Analysis*, the applicant indicated that the residential units associated with proposed project would increase by 10, from 964 to 974 units. As described therein, the analysis presented throughout this EIR adequately accounts for the potential environmental impacts of the 974 new residential units.

## 6.2 CEQA Requirements for Alternatives Analysis

The CEQA Guidelines require the analysis of a reasonable range of alternatives to a proposed project or to the location of a project that would feasibly attain most of the basic objectives of the project and avoid or substantially lessen the significant effects of the project (CEQA Guidelines Section 15126.6[a]). The range of alternatives required in an environmental impact report (EIR) is governed by a "rule of reason" that requires the EIR to set forth only those potentially feasible alternatives necessary to foster informed public participation and an informed and reasoned choice by the decision-making body (CEQA Guidelines Section 15126.6[f]). CEQA generally defines "feasible" to mean the ability to be accomplished in a successful manner within a reasonable timeframe, taking into account economic, environmental, social, technological, and legal factors. The following factors may also be taken into consideration when assessing the feasibility of alternatives: site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and the ability of the proponent to attain site control (CEQA Guidelines Section 15126.6[f][1]). An EIR need not consider an alternative whose impact cannot be reasonably ascertained and whose implementation is remote and speculative. Furthermore, an EIR need not consider every conceivable alternative but must consider a reasonable range of alternatives that will foster informed decision-making and public participation.

CEQA also requires the evaluation of a No Project Alternative (CEQA Guidelines section 15126.6[e]). The analysis of the No Project Alternative is based on the assumption that the proposed project would not be approved. In certain instances, the No Project Alternative means “no build,” wherein the existing environmental setting is maintained. However, where failure to proceed with the project would not result in the preservation of existing environmental conditions, the No Project Alternative should identify the practical result of the project’s non-approval rather than create and analyze a set of artificial assumptions to preserve the existing physical environment.

An environmentally superior alternative must also be identified among the alternatives considered. The environmentally superior alternative is generally defined as the alternative that would result in the least adverse environmental impact on the project site and affected environment. If the No Project Alternative is found to be the environmentally superior alternative, the EIR must identify an environmentally superior alternative among the other alternatives (CEQA Guidelines Section 15126.6[e][2]).

CEQA Guidelines Section 15126.6(c) also requires an EIR to identify and briefly discuss any alternatives that were considered by the lead agency but rejected as infeasible during the scoping process. In identifying alternatives, primary consideration was given to alternatives that would reduce significant impacts while still meeting most of the basic project objectives. Those alternatives that would have impacts identical to or more severe than those of the proposed project, or would not meet most of the basic project objectives, were rejected from further consideration.

## 6.3 Alternatives Selection

The goal of developing a set of possible alternative scenarios is to identify other means for attaining the project objectives while substantially lessening or avoiding one or more of the significant environmental impacts potentially caused by the project. To develop a reasonable range of alternatives for analysis, the City considers the project’s objectives and the significant impacts of the project so that an alternative can be selected that meets most of the objectives and avoids or minimizes at least one of the project’s significant impacts.

### 6.3.1 Project Objectives

The evaluation of alternatives is based, in part, on their ability to meet the following objectives for the proposed project:

- Provide a mix of land uses, generally encompassing residential and commercial activities, while featuring ground-floor uses that maintain street vitality along Decoto Road.
- Provide strong connections to the Union City Intermodal Station, which includes the Union City Bay Area Rapid Transit (BART) station while creating active, multi-modal streets that benefit cyclists and pedestrians within the neighborhood.
- Locate high-intensity development close to the Union City Intermodal Station including the Union City BART station.
- Provide a range of residential unit types for sale and for rent that will attract a wider demographic and promote greater diversity, safety, and activity.

- Provide ground-floor retail and locally focused commercial space to meet residents' needs and activate the street network.
- Offer an attractive and diverse network of public active and passive open spaces for the community.
- Develop a street grid that accommodates vehicles, bicycles, and pedestrians.
- Develop a design that focuses on high-quality buildings and landscapes while considering the conservation of resources.
- Minimize traffic impacts on area roads by increasing housing density in an area that is well served by regional public transportation, including BART.
- Provide much-needed affordable housing through the delivery of affordable units.
- Create a community consisting of high-quality architecture that encourages walkability within the neighborhood.
- Encourage infill redevelopment of underused sites in areas that are served by adequate infrastructure and services and near public transportation, freeways, and urban centers to encourage multi-family housing in proximity to transit corridors.

### 6.3.2 Summary of Significant Impacts

The EIR identified no impacts that would remain significant and unavoidable after mitigation and 23 significant impacts that would be reduced to less than significant with mitigation (refer to Chapter 4, Environmental Impact Analysis). The significant impacts that would be reduced to less than significant with mitigation are listed below.

#### Air Quality

- **Impact AQ-2a:** The proposed project could result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or State ambient air quality standard during construction. (Less than Significant with Mitigation)
- **Impact AQ-2b:** The proposed project could result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or State ambient air quality standard during concurrent construction and operation. (Less than Significant with Mitigation)
- **Impact AQ-2c:** The proposed project could result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or State ambient air quality standard during operation. (Less than Significant with Mitigation)
- **Impact AQ-3:** The project could expose sensitive receptors to substantial pollutant concentrations. (Less than Significant with Mitigation)
- **Impact C-AQ-1:** The proposed project, in combination with past, present, and reasonably foreseeable future projects, could result in a significant cumulative impact on air quality. (Less than Significant with Mitigation)

## Biological Resources

- **Impact BIO-1:** The project could have a substantial adverse effect, either directly or through habitat modifications, on a species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife (CDFW) or the U.S. Fish and Wildlife Service (USFWS). (Less than Significant with Mitigation)
- **Impact BIO-2:** The project could interfere substantially with the movement of a native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. (Less than Significant with Mitigation)
- **Impact BIO-3:** The project could conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. (Less than Significant with Mitigation)
- **Impact C-BIO-1:** The project could result in a cumulatively considerable contribution to significant cumulative biological resources impacts. (Less than Significant with Mitigation)

## Cultural Resources

- **Impact CUL-2:** The project has the potential to cause a substantial adverse change in the significance of as-yet-undocumented human remains or an archaeological resource, as defined in Section 15064.5. (Less than Significant with Mitigation)
- **Impact CUL-3:** The project has the potential to disturb human remains, including those interred outside of formal cemeteries. (Less than Significant with Mitigation)
- **Impact C-CUL-1:** The project could result in a cumulatively considerable contribution to significant cumulative cultural resources impacts. (Less than Significant with Mitigation)

## Energy

- **Impact EN-1:** The project could result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation. (Less than Significant with Mitigation)

## Geology, Soils, and Paleontological Resources

- **Impact GEO-7:** The project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. (Less than Significant with Mitigation)

## Greenhouse Gas Emissions

- **Impact GHG-1a:** The proposed project could generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment during construction. (Less than Significant with Mitigation)
- **Impact GHG-2:** The proposed project could conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. (Less than Significant with Mitigation)

## Hazards and Hazardous Materials

- **Impact HAZ-2:** The project could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. (Less than Significant with Mitigation)
- **Impact HAZ-3:** The project could emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school. (Less than Significant with Mitigation)
- **Impact HAZ-4:** The project could be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would not create a significant hazard to the public or the environment. (Less than Significant with Mitigation)

## Noise

- **Impact NOI-1:** The project could generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. (Less than Significant with Mitigation)
- **Impact C-NOI-1:** The project could result in a cumulatively considerable contribution to significant cumulative noise and vibration impacts. (Less than Significant with Mitigation)

## Tribal Cultural Resources

- **Impact TCR-1:** The project could cause a potentially substantial adverse change in the significance of a tribal cultural resource that is listed or eligible for listing in the CRHR, in a local register of historical resources (as defined in PRC Section 5020.1(k). This also includes tribal cultural resources determined to be significant by the lead agency in its discretion and supported by substantial evidence (as defined in subdivision (c) of Public Resources Code Section 5024.1). (Less than Significant with Mitigation)
- **Impact C-TCR-1:** The project could result in a cumulatively considerable contribution to significant cumulative tribal cultural resources impacts. (Less than Significant with Mitigation)

## 6.4 Alternatives Analyzed

This section describes the project alternatives that were selected and evaluated in this analysis. The first alternative, the No Project Alternative, is required under CEQA Guidelines Section 15126.6(e). Two additional alternatives were developed following the identification of significant impacts from the proposed project that would require mitigation. The alternatives selected for detailed analysis in this EIR are as follows:

- Alternative A: No Project Alternative
- Alternative B: Increased Office Alternative
- Alternative C: Reduced Intensity Alternative

The selected alternatives are described in detail below. In addition, this analysis evaluates the impacts of each of the selected alternatives and identifies whether those impacts would be less than, similar to, or greater than the impacts of the proposed project. The alternatives analysis

focuses on the topics analyzed in detail in the EIR (air quality; biological resources; cultural resources; energy; geology, soils, and paleontological resources; greenhouse gases; hazards and hazardous materials; hydrology and water quality; land use and planning; noise; population and housing; public services; tribal cultural resources; transportation; and utilities and service systems). Table 6-1 compares the significant impacts of the proposed project to the impacts of Alternatives A, B, and C.

## **6.4.1 Alternative A: No Project Alternative**

### **6.4.1.1 Description**

Alternative A: No Project Alternative (Alternative A) is based on what would reasonably be expected to occur on the project site if the proposed project is not approved, in accordance with CEQA Guidelines Section 15126.6(e). Alternative A assumes that the site would remain in its existing condition, a vacant site with industrial uses (2.0 acres); surface parking lots, asphalt or concrete storage lots, a roadway, and railroad spur improvements (6.4 acres); and vacant unpaved areas, including agricultural, annual grassland, landscaped, and ruderal areas (18.1 acres).

### **6.4.1.2 Impacts**

Under Alternative A, the project site would remain in its existing condition. Alternative A would have fewer impacts on population and housing, public services and recreation, and utilities and service systems compared with the project because the site would remain in its existing condition, would not contribute to planned growth in the City, and would not result in any additional residential development or corresponding demand on public services, recreational facilities, or utilities and service systems. Alternative A would also have no impacts on air quality, greenhouse gas emissions, energy, noise, and transportation compared with the project because no new construction would occur, and no additional development or associated traffic would result.

Impacts on biological resources would be avoided under Alternative A because it would not result in the identified impacts related to the potential disturbance of burrowing owls, roosting bats, and nesting birds compared with the project. Impacts related to cultural resources, tribal cultural resources, geology, soils, and paleontological resources, and hazards and hazardous materials would also be avoided under Alternative A because there would be no new construction, and no ground disturbance or excavation would occur that could disturb archaeological resources, including human remains and tribal cultural resources, disrupt potentially contaminated soils, or expose people or structures to additional seismic activity. Impacts related to land use and planning would be greater than those of the project because Alternative A would result in no new development at the site, which would not be consistent with the Station East Mixed Use (SEMU) land use designation; the SEMU designation allows for a range of uses, including light industrial, research and development, office, retail and entertainment, hotel, residential, and public plaza uses. Alternative A would also not be consistent with the site's Research and Development Campus (RDC) zoning, which is intended to provide space for a flexible range of activities that have few or no nuisance characteristics. Finally, impacts on hydrology and water quality would be similar under Alternative A. Alternative A would have greater stormwater impacts compared with the project because the project would improve stormwater drainage during rain events; however, it would have a lesser impact compared with the project regarding water quality because it would not require construction.



**Table 6-1. Comparison of Project Alternatives to the Proposed Project**

Environmental Topic Area	Level of Project Impact	Impacts Compared to Proposed Project		
		Alternative A: No Project Alternative	Alternative B: Increased Office Alternative	Alternative C: Reduced Intensity Alternative
Air Quality	Less than Significant with Mitigation	Less	Similar but slightly less	Similar but slightly less
Biological Resources	Less than Significant with Mitigation	Less	Similar	Similar
Cultural Resources	Less than Significant with Mitigation	Less	Similar	Similar but slightly less
Energy	Less than Significant with Mitigation	Less	Similar	Similar but slightly less
Geology, Soils, and Paleontological Resources	Less than Significant with Mitigation	Less	Greater	Similar but slightly less
Greenhouse Gas Emissions	Less than Significant with Mitigation	Less	Less	Similar but slightly less
Hazards and Hazardous Materials	Less than Significant with Mitigation	Less	Similar	Similar
Hydrology and Water Quality	Less than Significant with Mitigation	Greater	Similar	Similar
Land Use and Planning	Less than Significant	Greater	Greater	Similar
Noise	Less than Significant with Mitigation	Less	Similar	Similar but slightly less
Population and Housing	Less than Significant	Less	Less	Similar
Public Services and Recreation	Less than Significant	Less	Less	Less
Tribal Cultural Resources	Less than Significant with Mitigation	Less	Similar	Similar but slightly less
Transportation	Less than Significant	Less	Similar	Similar
Utilities and Service Systems	Less than Significant	Less	Similar	Less

### 6.4.1.3 Ability to Meet Project Objectives

Although Alternative A would avoid all of the project's impacts, it would not meet any of the project objectives (e.g., create a community that locates high-intensity development close to the Union City BART station; provide a mix of land uses, generally encompassing residential and commercial activities, while featuring ground-floor uses that maintain street vitality along Decoto Road; provide strong connections to the Union City Intermodal Station, which includes the Union City BART station while creating active, multi-modal streets that benefit cyclists and pedestrians within the neighborhood; locate high-intensity development close to the Union City Intermodal Station including the Union City BART station; provide a range of residential unit types for sale and for rent that will attract a wider demographic and promote greater diversity, safety, and activity; provide ground-floor retail and locally focused commercial space to meet residents' needs and activate the street network; and offer an attractive and diverse network of public active and passive open spaces for the community).

## 6.4.2 Alternative B: Increased Office Alternative

### 6.4.2.1 Description

Alternative B: Increased Office Alternative (Alternative B) would remove the residential component from the project and replace it with office development. Alternative B would include 1,092,025 square feet (sf) of office development and 30,770 sf of commercial space, compared with no office development under the proposed project, 1,053,594 sf of residential development, and 30,770 sf of commercial space, as shown in Table 6-2.

**Table 6-2. Alternative B – Increased Office Alternative Features**

<b>Feature</b>	<b>Alternative B Total</b>	<b>Proposed Project Total</b>
Build Square Footage (Total)	1,835,100 sf	1,835,100 sf
Residential Square Footage	0 sf	1,053,594 sf
Office Square Footage	1,092,025 sf	0 sf
Commercial Square Footage	30,770 sf	30,770 sf
Residential Amenity Square Footage	0 sf	38,431 sf
Deck/Private Open Space Square Footage	113,900 sf	113,900 sf
Garage Square Footage	508,365 sf	508,365 sf
Corridor Square Footage	90,040 sf	90,040 sf
Dwelling Units (total)	0 units	964 units
Studio	0	40
One-Bedroom Units	0	334
Two-Bedroom Units	0	382
Three-Bedroom Units	0	128
Four-Bedroom Units	0	80
Vehicle Parking Spaces	3,794 to 4,249 spaces	1,793 spaces
Bicycle Parking Spaces	425 to 759 spaces	458 spaces

Similar to the proposed project, most of the proposed buildings under Alternative B would be between three and five stories tall. Alternative B would also include pedestrian and vehicular improvements similar to those of the proposed project, including the construction of roads to connect the project site to Zwissig Way, Bradford Way, Decoto Road, 7<sup>th</sup> Street, and other roads; public open spaces throughout the site; and other amenities.

## 6.4.2.2 Impacts

### Less-than-Significant Impacts

Under Alternative B, the site would be redeveloped with office and commercial spaces, as opposed to the residential development under the proposed project. Alternative B would have similar impacts on utilities and service systems compared with the proposed project because it would result in the same amount of overall development and similar corresponding demand for utilities services. Alternative B would have slightly less impacts on public services and recreation compared with the proposed project because office and commercial spaces result in slightly less demand for public services and recreation facilities as compared to residential uses.

Impacts on population and housing under Alternative B would be less than the impacts under the proposed project because Alternative B would add only employees, as opposed to residents. The employees could live within the City or outside the City. However, neither Alternative B nor the proposed project would substantially stimulate unplanned direct or indirect growth. Impacts related to land use and planning would be greater under Alternative B because office use is not permitted under the existing General Plan and zoning designations.

Impacts on hydrology and water quality would be similar under Alternative B; drainage would be improved, but construction activities could degrade water quality.

### Biological Resources

Alternative B would result in similar impacts on biological resources compared with the proposed project because approximately the same number of trees would be removed, resulting in similar impacts on nesting birds and roosting bats. Therefore, Mitigation Measures BIO-1a, Burrowing Owl Protection; BIO-1b, Bat Protection; and BIO-1c, Nesting Bird Protection, would apply to Alternative B. Like the project, Alternative B would be required to abide by all conditions specified in the City Municipal Code (e.g., conditions that require the project sponsor to obtain permits to remove protected trees and compensate for their removal by planting replacement trees of certain sizes and species). With implementation of Mitigation Measures BIO-1a, BIO-1b, and BIO-1c, project-level and cumulative biological resources impacts under Alternative B would be less than significant with mitigation and similar to those of the proposed project.

### Cultural Resources and Tribal Cultural Resources

Similar impacts on cultural resources and tribal cultural resources would result from Alternative B compared with the proposed project because a similar amount of excavation would be required for the subterranean parking garages that would be constructed. Therefore, the potential for ground-disturbing activities to unearth previously unknown archaeological resources would be the same. Mitigation Measures CUL-2a, Preconstruction Archaeological Sensitivity Training; CUL-2b, Unanticipated Discovery Protocol; and CUL-3, Handling of Human Remains, would apply to Alternative B. With implementation of Mitigation Measures CUL-2a, CUL-2b, and CUL-3, project-level and cumulative cultural resources and tribal cultural resources impacts under Alternative B would be less than significant with mitigation and similar to those of the proposed project.

## Air Quality

Impacts under Alternative B related to air quality during construction would be similar to those of the proposed project because the same overall amount of development is proposed, resulting in a similar construction duration. Therefore, Mitigation Measures AQ-2a, Require Low-VOC Coatings during Construction; AQ-2b, Use Clean Diesel-Powered Equipment during Construction to Control Construction-Related Emissions; AQ-2c, Require Use of Diesel Trucks with 2010-Compliant Engines; and AQ-2d, Implement BAAQMD Basic Construction Mitigation Measures, would apply to Alternative B. Impacts associated with construction criteria air pollutant emissions under this alternative would be less than significant with mitigation, similar to the proposed project. In addition, with implementation of Mitigation Measures AQ-2a, AQ-2b, AQ-2c, and AQ-2d, Alternative B's contribution to a cumulative criteria air pollutant emissions impact would be less than significant, similar to the proposed project.

During operations, emissions under Alternative B from area and building energy sources would be similar to those of the proposed project. However, Alternative B would generate fewer vehicle trips compared with the proposed project (employee VMT is less than resident VMT). This would reduce operational emissions impacts but would not eliminate them. Therefore, Mitigation Measures AQ-2a; AQ-2b; AQ-2c; AQ-2d; AQ-2e, Require Low-VOC Coatings during Operation; and AQ-2f, Require Use of Green Consumer Products during Operation would apply to Alternative B. As appropriate, Alternative B would also be subject to Mitigation Measure AQ-2g, Purchase of Mitigation Credits for Emissions Exceeding BAAQMD's Daily Pollutant Thresholds. Impacts associated with operational criteria air pollutant emissions under this alternative would be less than significant with mitigation, although slightly reduced compared with the proposed project. In addition, with implementation of Mitigation Measures AQ-2a, AQ-2b, AQ-2c, AQ-2d, AQ-2e, AQ-2f, and AQ-2g, Alternative B's contribution to a cumulative criteria pollutant emissions impact would be less than significant, although slightly reduced compared with the proposed project.

Similar to the proposed project, construction and operation of Alternative B would generate toxic air contaminants (TACs), including diesel particulate matter. However, with implementation of the construction and development program under Alternative B, as well as implementation of Mitigation Measures AQ-2a, AQ-2b, AQ-2c, AQ-2d, AQ-2e, AQ-2f, and AQ-2g, the impact of the health risk from TACs during construction and operations would be less than significant with mitigation, similar to the proposed project.

## Energy

Under Alternative B, the level of demolition and construction activity would be similar to that of the proposed project, resulting in similar construction-related energy usage and consumption. Mitigation Measure GHG-1a, Require Implementation of BAAQMD-Recommended Construction BMPs, would apply to Alternative B. During operations, energy usage and consumption under Alternative B would be similar to that of the proposed project because the same overall amount of development is proposed. As with the project, Alternative B would comply with 2016 Title 24 standards and CALGreen requirements. With implementation of Mitigation Measure GHG-1a, project-level and cumulative energy impacts under Alternative B would be less than significant with mitigation, similar to the proposed project.

## Geology, Soils, and Paleontological Resources

Impacts on geology, soils, and paleontology under Alternative B would be greater than those of the proposed project because a greater amount of excavation would likely be required for the subterranean parking garages that would be constructed. Therefore, the potential for excavation to disturb geologic units with high paleontological sensitivity would remain. Mitigation Measure GEO-7, Paleontological Monitoring and Mitigation Plan, would apply to Alternative B. Implementation of Mitigation Measure GEO-7 would reduce the potential for destroying unique paleontological resources by ensuring that resources are recognized during project construction and preserved for scientific study, and this impact would be less than significant with mitigation. With implementation of Mitigation Measure GEO-7, project-level paleontological resources impacts under Alternative B would be less than significant with mitigation, but greater than the proposed project. Cumulative geology, soils, and paleontological resources impacts under Alternative B would be less than significant, but greater than the proposed project.

## Greenhouse Gas Emissions

Under Alternative B, the level of demolition and construction activity would be similar to that of the proposed project, resulting in similar construction-related GHG emissions. Mitigation Measure GHG-1a, Require Implementation of BAAQMD-Recommended Construction BMPs, would apply to Alternative B. Direct emissions generated by emergency generators and landscaping activities and indirect emissions associated with electricity consumption, waste and wastewater generation, and water use would be similar to those of the proposed project because the overall amount of proposed development would be the same. As with the project, Alternative B would implement sustainability features and comply with City requirements regarding recycling and waste reduction programs, composting, and water-efficient landscaping. However, Alternative B would generate fewer vehicle trips than the proposed project (VMT is lower with office development compared with residential development). This would result in reduced operational GHG emissions compared with those of the proposed project but would still require implementation of Mitigation Measure GHG-1a to ensure impacts remain less than significant. Therefore, project-level and cumulative GHG emissions impacts under Alternative B would be less than significant with mitigation, and less than the impacts under the proposed project, because operational GHG emissions would be reduced.

## Hazards and Hazardous Materials

Impacts related to hazards and hazardous materials under Alternative B would be similar to those of the proposed project because construction would have the same associated risks regarding accidental releases of hazardous materials but would also be subject to the same site remediation requirements as the project. Mitigation Measure HAZ-2a, Site Management Plan; HAZ-2b, Engineering Controls on the Shelton Property Site; and HAZ-2c, Conduct a Hazardous Building Materials Survey prior to Demolition Activities would apply to Alternative B. Implementation of Mitigation Measures HAZ-2a, HAZ-2b, and HAZ-2c would reduce potential impacts associated with demolition activities and this impact would be less than significant with mitigation. With implementation of Mitigation Measures HAZ-2a, HAZ-2b, and HAZ-2c, project-level hazards and hazardous materials impacts under Alternative B would be less than significant with mitigation, similar to the proposed project. Cumulative hazards and hazardous materials impacts under Alternative B would be less than significant, similar to the proposed project.

## Noise and Vibration

Under Alternative B, the level of demolition and construction activity would be similar to that of the proposed project, resulting in similar levels of construction noise and vibration. Therefore, Mitigation Measure NOI-1a, Construction Noise Control Plan, would apply to Alternative B. During operations, Alternative B would generate fewer vehicle trips than the proposed project (VMT is lower with office development compared with residential development), which would reduce traffic noise. Noise from the proposed heating, ventilation, and air-conditioning (HVAC) system; mechanical equipment; and emergency generators under Alternative B would be similar to the noise under the proposed project. Therefore, Mitigation Measure NOI-1b, Operational Equipment Noise Control Plan, would apply to Alternative B. With implementation of Mitigation Measures NOI-1a and NOI-1b, project-level and cumulative noise and vibration impacts under Alternative B would be less than significant with mitigation, similar to the proposed project.

## Transportation

Similar to the proposed project, Alternative B would meet the screening thresholds set by the Governor's Office of Planning and Research (OPR) related to VMT due to the site's proximity to a high-quality transit corridor. Similar to the project, Alternative B would also not result in an overall floor area ratio lower than 0.75; would not provide more marking than what is required by the City; would be generally consistent with the Sustainable Communities Strategy (in this case, Plan Bay Area); and would not remove existing affordable residential units. Since Alternative B is in the same location as the proposed project and would meet OPR's screening thresholds, impacts to VMT would be less than significant, similar to the proposed project. All other transportation impacts would remain less than significant under Alternative B, similar to the project, because the access and circulation system within the project area and the surrounding street network would remain the same as the proposed project.

### 6.4.2.3 Ability to Meet Project Objectives

Although Alternative B could slightly reduce some of the project's impacts, it would not meet many of the project's primary objectives (e.g., provide a mix of land uses, generally encompassing residential and commercial activities, while featuring ground-floor uses that maintain street vitality along Decoto Road; locate high-intensity development close to the Union City Intermodal Station including the Union City BART station; provide a range of residential unit types for sale and for rent that will attract a wider demographic and promote greater diversity, safety, and activity; minimize traffic impacts on area roads by increasing housing density in an area well served by regional public transportation, including BART; provide much-needed affordable housing through the delivery of affordable units; and create a community consisting of high-quality architecture that encourages walkability within the neighborhood).

## 6.4.3 Alternative C: Reduced Intensity Alternative

### 6.4.3.1 Description

Alternative C: Reduced Intensity Alternative (Alternative C) would involve development of up to 723 residential units (apartments, condominiums, and townhomes), totaling approximately 790,196 sf; approximately 28,823 sf of residential amenity space; approximately 23,078 sf of commercial space; and approximately 534,229 sf of decks, private open space, garages, and corridor space, for a total development of approximately 1,376,325 sf (see Table 6-3). This represents a 25 percent reduction in

all land uses compared with the proposed project. Alternative C would still include 11 planning areas (PAs) and 34 buildings, just like the proposed project, but most of the buildings would be between two and four stories tall. Buildout of this alternative would include 30 studios, 251 one-bedroom units, 287 two-bedroom units, 96 three-bedroom units, and 60 four-bedroom units. In addition, Alternative C would include approximately 724 to 1,604 vehicle parking spaces and 241 bicycle parking spaces.

**Table 6-3. Alternative C – Reduced Intensity Alternative Features**

<b>Feature</b>	<b>Alternative C Total</b>	<b>Proposed Project Total</b>
Build Square Footage (Total)	1,376,325 sf	1,835,100 sf
Residential Square Footage	790,196 sf	1,053,594 sf
Commercial Square Footage	23,078 sf	30,770 sf
Residential Amenity Square Footage	28,823 sf	38,431 sf
Deck/Private Open Space Square Footage	85,425 sf	113,900 sf
Garage Square Footage	381,274 sf	508,365 sf
Corridor Square Footage	67,530 sf	90,040 sf
Dwelling Units (total)	723 units	964 units
Studio	30	40
One-Bedroom Units	251	334
Two-Bedroom Units	287	382
Three- Bedroom Units	96	128
Four-Bedroom Units	60	80
Vehicle Parking Spaces	724 to 1,604 spaces	1,793 spaces
Bicycle Parking Spaces	241 spaces	458 spaces

The locations of the different land uses under Alternative C would be the same as the locations under the project. Townhomes would be located in the southern portion of the project site, condominiums would be located in the central and western portions of the project site, for-rent apartments and affordable housing would be located in the northeastern portion of the project site, commercial uses would be located along the northern portion of the project site, and amenities, open spaces, and parking would be located throughout the site. In addition, Alternative C would implement the same pedestrian and vehicular improvements as the proposed project, including the construction of roads to connect the project site to Zwissig Way, Bradford Way, Decoto Road, 7<sup>th</sup> Street, and other roads.

### 6.4.3.2 Impacts

#### Less-than-Significant Impacts

Under Alternative C, the site would be redeveloped but with a 25 percent reduction in all land uses compared with the proposed project. Alternative C would have fewer impacts on public services and recreation as well as utilities and service systems compared with the proposed project because it would result in less overall development and less corresponding demand for public services, recreational facilities, and utilities services. Impacts on population and housing under Alternative C would be similar to those under the proposed project. Both Alternative C and the proposed project would accommodate planned growth in the City, although slightly fewer housing units and residents would be added under Alternative C. Furthermore, neither Alternative C nor the proposed project would stimulate unplanned direct or indirect growth. Impacts related to land use and planning would

be the same under both Alternative C and the proposed project because both would require a general plan amendment, a new zoning district, updates to the DIPSA Specific Plan, and a tentative map to facilitate block configuration and the creation of condominiums and townhomes.

Impacts under Alternative C on hydrology and water quality would be similar to those of the proposed project. Although drainage would be improved, construction activities could degrade water quality.

### **Biological Resources**

Alternative C would result in impacts on biological resources similar to those of the proposed project because approximately the same number of trees would be removed, resulting in similar impacts on nesting birds and roosting bats. Therefore, Mitigation Measures BIO-1a, Burrowing Owl Protection; BIO-1b, Bat Protection; and BIO-1c, Nesting Bird Protection, would apply to Alternative C. Like the project, Alternative C would be required to abide by all conditions specified in the City Municipal Code (e.g., conditions that require the project sponsor to obtain permits to remove protected trees and compensate for their removal by planting replacement trees of certain sizes and species). With implementation of Mitigation Measures BIO-1a, BIO-1b, and BIO-1c, project-level and cumulative biological resources impacts under Alternative C would be less than significant with mitigation, similar to the proposed project.

### **Cultural Resources and Tribal Cultural Resources**

Similar but slightly lesser impacts on cultural resources and tribal cultural resources would result from Alternative C compared with the proposed project because less excavation would be required for the smaller subterranean parking garages that would be constructed. This would reduce the potential for ground-disturbing activities to unearth previously unknown archaeological resources but would not eliminate the impacts. Mitigation Measures CUL-2a, Preconstruction Archaeological Sensitivity Training; CUL-2b, Unanticipated Discovery Protocol; and CUL-3, Handling of Human Remains, would apply to Alternative C. With implementation of Mitigation Measures CUL-2a, CUL-2b, and CUL-3, project-level and cumulative cultural resources and tribal cultural resources impacts under Alternative C would be less than significant with mitigation and slightly reduced compared with the proposed project.

### **Air Quality**

Impacts under Alternative C related to air quality would be similar but slightly less than those of the proposed project because less development would result in a slightly shorter construction schedule. This would reduce impacts from construction-related emissions but would not eliminate the impacts. Therefore, Mitigation Measures AQ-2a, Require Low-VOC Coatings during Construction; AQ-2b, Use Clean Diesel-Powered Equipment during Construction to Control Construction-Related Emissions; AQ-2c, Require Use of Diesel Trucks with 2010-Compliant Engines; and AQ-2d, Implement BAAQMD Basic Construction Mitigation Measures, would apply to Alternative C. Impacts associated with construction criteria air pollutant emissions under this alternative would be less than significant with mitigation, although slightly reduced compared with the proposed project. In addition, with implementation of Mitigation Measures AQ-2a, AQ-2b, AQ-2c, and AQ-2d, Alternative C's contribution to a cumulative criteria pollutant emissions impact would be less than significant, although slightly reduced compared with the proposed project.



During operations, emissions under Alternative C from area and building energy sources would be less than those of the proposed project because the proposed development would be approximately 25 percent smaller. In addition, Alternative C would generate fewer vehicle trips than the proposed project because there would be fewer residents and employees at the project site. This would reduce operational emissions impacts but would not eliminate the impacts. Therefore, Mitigation Measures AQ-2a; AQ-2b; AQ-2c; AQ-2d; AQ-2e, Require Low-VOC Coatings during Operation; and AQ-2f, Require Use of Green Consumer Products during Operation would apply to Alternative C. As appropriate, Alternative C would also be subject to Mitigation Measure AQ-2g, Purchase of Mitigation Credits for Emissions Exceeding BAAQMD's Daily Pollutant Thresholds. Impacts associated with operational criteria air pollutant emissions under this alternative would be less than significant with mitigation, although slightly reduced compared with the proposed project. In addition, with implementation of Mitigation Measures AQ-2a, AQ-2b, AQ-2c, AQ-2d, AQ-2e, AQ-2f, and AQ-2g, Alternative C's contribution to a cumulative criteria air pollutant emissions impact would be less than significant, although slightly reduced compared with the proposed project.

Similar to the proposed project, construction and operation of Alternative C would generate TACs, including diesel particulate matter. However, under the slightly reduced construction and development program with Alternative C, as well as implementation of Mitigation Measures AQ-2a, AQ-2b, AQ-2c, AQ-2d, AQ-2e, AQ-2f, and AQ-2g, the impact of the health risk from TACs during construction and operations would be less than significant with mitigation, although slightly reduced compared with the proposed project.

## **Energy**

Under the slightly reduced construction program of Alternative C, less demolition and construction would be required. This would slightly reduce construction-related energy usage and consumption but would not eliminate the related impacts. Mitigation Measure GHG-1a, Require Implementation of BAAQMD-Recommended Construction BMPs, would apply to Alternative C. During operations, energy usage and consumption under Alternative C would be slightly less than it would be under the proposed project because the proposed development would be approximately 25 percent smaller. As with the proposed project, Alternative C would install Energy Star appliances and comply with 2016 Title 24 standards and CALGreen requirements. With implementation of Mitigation Measure GHG-1a, project-level and cumulative energy impacts under Alternative C would be less than significant with mitigation, similar to the proposed project but slightly reduced.

## **Geology, Soils, and Paleontological Resources**

Impacts on geology, soils, and paleontology under Alternative C would be similar to those of the proposed project but slightly less because less excavation would be required for the smaller subterranean parking garages that would be constructed. This would reduce the potential for excavation to disturb geologic units with high paleontological sensitivity but would not eliminate the impacts. Implementation of Mitigation Measure GEO-7 would reduce the potential for destroying unique paleontological resources by ensuring that resources are recognized during project construction and preserved for scientific study, and this impact would be less than significant with mitigation. With implementation of Mitigation Measure GEO-7, project-level paleontological resources impacts under Alternative C would be less than significant with mitigation, similar to the proposed project. Cumulative geology, soils, and paleontological resources impacts under Alternative C would be less than significant, similar to the proposed project.

## Greenhouse Gas Emissions

Under the slightly reduced construction program of Alternative C, less demolition and construction would be required. This would slightly reduce construction-related GHG emissions but would not eliminate the related impacts. Mitigation Measure GHG-1a, Require Implementation of BAAQMD-Recommended Construction BMPs, would apply to Alternative C. Alternative C would generate slightly fewer vehicle trips than the proposed project because there would be fewer residents and employees at the project site. In addition, direct emissions generated by emergency generators, natural gas combustion, and landscaping activities, as well as indirect emissions associated with electricity consumption, waste and wastewater generation, and water use, would be reduced compared with the proposed project because the proposed development would be approximately 25 percent smaller. As with the project, Alternative C would implement the same sustainability features, such as Energy Star appliances, and comply with the City requirements regarding recycling and waste reduction programs, composting, and water-efficient landscaping. Operation of Alternative C would result in slightly reduced operational GHG emissions compared with the proposed project.

## Hazards and Hazardous Materials

Impacts under Alternative C related to hazards and hazardous materials would be similar to those of the proposed project. Construction activities under Alternative C and the proposed project would have the same associated risks regarding accidental releases of hazardous materials. Mitigation Measure HAZ-2a, Site Management Plan; HAZ-2b, Engineering Controls on the Shelton Property Site; and HAZ-2c, Conduct a Hazardous Building Materials Survey prior to Demolition Activities would apply to Alternative C. Implementation of Mitigation Measures HAZ-2a, HAZ-2b, and HAZ-2c would reduce potential impacts associated with demolition activities and this impact would be less than significant with mitigation. With implementation of Mitigation Measures HAZ-2a, HAZ-2b, and HAZ-2c, project-level hazards and hazardous materials impacts under Alternative C would be less than significant with mitigation, similar to the proposed project. Cumulative hazards and hazardous materials impacts under Alternative C would be less than significant, similar to the proposed project.

## Noise and Vibration

Under the slightly reduced construction program of Alternative C, less demolition and construction would be required, which would reduce construction noise and vibration. This would slightly reduce construction-related noise and vibration impacts but would not eliminate the impacts. Therefore, Mitigation Measure NOI-1a, Construction Noise Control Plan, would apply to Alternative C. During operations, Alternative C would generate fewer vehicle trips than the proposed project because there would be fewer residents and employees at the project site, which would reduce traffic noise. Noise from the proposed HVAC system, mechanical equipment, and emergency generators under Alternative C would be similar to noise with the proposed project. Therefore, Mitigation Measure NOI-1b, Operational Equipment Noise Control Plan, would apply to Alternative C. With implementation of Mitigation Measures NOI-1a and NOI-1b, project-level and cumulative noise and vibration impacts under Alternative C would be less than significant with mitigation and slightly reduced compared with the proposed project.

## Transportation

Under Alternative C, VMT impacts would be less than significant since this alternative would meet OPR's screening thresholds (for "Near Transit Stations"), similar to the proposed project. Similar to the project, Alternative C would also not likely result in an overall floor area ratio lower than 0.75; would not provide more parking than what is required by the City; would be generally consistent with the Sustainable Communities Strategy (in this case, Plan Bay Area); and would not remove existing affordable residential units. Since Alternative C is in the same location as the proposed project and would meet OPR's screening thresholds, impacts to VMT would be less than significant, similar to the proposed project.

All other transportation impacts would remain less than significant under Alternative C, similar to the project, because the access and circulation system within the project area and the surrounding street network would remain the same as the proposed project.

### 6.4.3.3 Ability to Meet Project Objectives

Although Alternative C would reduce many of the proposed project's impacts, it would not meet some of the project's objectives because of the 25 percent reduction in land uses, particularly those associated with housing and affordable housing. The project objectives that would not be fully met are as follows: locate high-intensity development close to the Union City Intermodal Station including the Union City BART station; provide a range of residential unit types for sale and for rent that will attract a wider demographic and promote greater diversity, safety, and activity; provide much-needed affordable housing through the delivery of affordable units; and encourage infill redevelopment of underused sites in areas that are served by adequate infrastructure and services and near public transportation, freeways, and urban centers to encourage multi-family housing in proximity to transit corridors.

## 6.5 Environmentally Superior Alternative

The CEQA Guidelines require identification of an environmentally superior alternative (Section 15126.6[e]), which is the alternative that best avoids or lessens significant impacts of the proposed project, even if the alternative would, to some degree, impede attainment of the project objectives. If it is determined that the "no project" alternative would be the environmentally superior alternative, then the EIR shall also identify an environmentally superior alternative among the other project alternatives (Section 15126.6[3]).

Table 6-1 compares the impacts of the proposed project to Alternatives A, B, and C. Alternative A would have less of an environmental impact on almost all resource topics but a slightly greater impact on land use as well as hydrology and water quality. Alternative B would result in an office development instead of a residential development, thereby reducing impacts associated with greater residential vehicle trips. This is because VMT is less with office development compared with residential development. Impacts related to land use and planning would be greater under Alternative B because office use is not permitted under the existing General Plan and zoning designations. Impacts on geology, soils, and paleontology under Alternative B would be greater than the proposed project because a greater amount of excavation would likely be required for the subterranean garages that would be constructed. All other impacts would be similar to the impacts of the proposed project. Alternative C would reduce the overall amount of development on the project site by 25 percent, resulting in similar but slightly lesser environmental impacts for most resource topics.

Alternative A, the No Project Alternative, would be the environmentally superior alternative because it would result in fewer impacts overall. However, because Alternative A would not fulfill any of the project objectives and is required to be included in the EIR by CEQA, another alternative must be identified as the environmentally superior alternative.

Alternative B would reduce the project's impacts to the greatest degree by constructing an office development instead of a residential development, which would result in the greatest decrease in operational impacts due to the lower trip generation. Therefore, Alternative B would be the environmentally superior alternative.

## 6.6 Alternatives Considered But Dismissed

Additional alternatives were considered as part of the screening and selection process. As stated in CEQA Guidelines Section 15126.6(f)(1), factors that may be considered when a lead agency is assessing the feasibility of alternatives include:

...site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site (or the site is already owned by the proponent).

Two alternatives have been considered but rejected from further analysis because of infeasibility and their inability to meet basic project objectives. In addition, they would result in greater impacts than the proposed project.

One alternative considered but eliminated included 67,000 sf of ground-floor retail and 1,150 multi-family residential units, which would have been a larger project compared to what has been proposed. This alternative was eliminated from consideration because it would not have reduced the significant impacts. Instead, it would have increased a variety of impacts, such as those related to VMT, greenhouse gas emissions, air quality, public services, and utilities and service systems.

A second alternative, an off-site alternative, was also considered but eliminated. The CEQA Guidelines encourage consideration of an alternative site when the significant effects of a project would be avoided or substantially lessened by developing the project at another location (Section 15126[f][2][A]). An alternative location would need to be at least comparable in size and within an urbanized area of Union City where adequate roadway access exists and the needed utility capacity is available to serve the proposed development. Because the project site is currently vacant, appropriate alternative sites might include other vacant properties.

In order to identify an alternative site that might be reasonably considered to “feasibly accomplish most of the basic purposes” of the project and reduce significant impacts, it was assumed that such a site would ideally have the following characteristics:

- Be approximately 26.5 acres in size,
- Be located within 0.5 mile of a transit hub or high-quality transit corridor,
- Be located near freeways and/or major roadways,
- Be served by available infrastructure,

- Be available for development, and
- Be zoned for mixed-use or transit-oriented development at a density similar to what would be approved at the project site.

Potential alternative sites were evaluated that would (1) reduce or avoid some or all of the environmental impacts of the project, (2) be the needed size to meet most of the basic project objectives, and (3) be immediately available to be acquired or controlled by the applicant.

A suitably sized development site within Union City could be expected to have VMT impacts as well as impacts associated with construction. Any project of this size and intensity is likely to result in the same or similar impacts on roadways, some perhaps more significant. These sites may be in areas that are not as well served by transit as the project site. Therefore, because of the lack of large parcels that are currently available for development within 0.5 mile of a transit hub or high-quality transit corridor and able to meet the basic objectives of the project or reduce significant impacts, an off-site alternative was not identified.



## Chapter 7

# List of Preparers

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This Draft Environmental Impact Report (EIR) was prepared by the City of Union City (City) with the assistance of ICF and Fehr & Peers. City and consultant staff involved in the preparation of this Draft EIR are listed below.

## 7.1 Lead Agency

### City of Union City

Planning Division, Economic & Community Development  
34009 Alvarado-Niles Road  
Union City, California 94587

- Carmela Campbell, Economic & Community Development Director
- Leslie Carmichael, Consultant Planner
- Carla Violet, Consultant Planner
- Farooq Azim, City Engineer
- Andy Block, Environmental Programs Manager

## 7.2 Report Preparers

### ICF (Preparer of the Draft EIR)

201 Mission Street, Suite 1500  
San Francisco, California 94105

- Erin Efner, Project Director
- Jessica Viramontes, Project Manager
- Jennifer Andersen, Deputy Project Manager
- Devan Atteberry, Project Coordinator
- Laura Yoon, Air Quality, Greenhouse Gas, and Climate Change Specialist
- Sandy Lin, Air Quality, Greenhouse Gas, and Climate Change Specialist
- Danielle Tannourji, Biologist
- Ross Wilming, Biologist
- Tait Elder, Archaeologist
- Lily Arias, Archaeologist
- Yuka Oiwa, Archaeologist

- Gretchen Boyce, Architectural Historian
- Eleanor Cox, Architectural Historian
- Andrea Dumovich, Architectural Historian
- Diana Roberts, Environmental Planner
- Mario Barrera, Environmental Planner
- Patrick Maley, Environmental Planner
- Aileen Cole, Environmental Planner
- Katrina Sukola, Hydrology and Water Quality Specialist
- Zetta Quick, Environmental Planner
- Dave Buehler, Noise Specialist
- Cory Matsui, Noise Specialist
- John Mathias, Editor
- Anthony Ha, Publications Specialist
- Teresa Giffen, Graphic Artist
- John Conley, Graphic Artist

**Fehr & Peers (Preparer of the Transportation Analysis)**

2201 Broadway, Suite 602  
Oakland, California 94612

- Sam Tabibnia, Senior Associate



## **APPENDICES**



**Appendix 2**  
**Notice of Preparation and Comments**





## **NOTICE OF PREPARATION**

### **of a Draft Environmental Impact Report for the Station East Residential/Mixed Use Project**

**DATE:** March 10, 2020

**TO:** State Clearinghouse  
Responsible Agencies  
Trustee Agencies  
Federal Agencies  
Interested Parties

**PROJECT TITLE:** Station East Residential/Mixed Use Project

**NOP COMMENT PERIOD:** March 10 - April 9, 2020

**LOCATION:** Project site is bound by Decoto Road to the north, 7<sup>th</sup> Street to the east, Bradford Way to the south, and the Union Pacific Railroad Niles Subdivision rail line to the west. See Figure 1 (attached).

**LEAD AGENCY CONTACT:** Carmela Campbell, AICP  
Economic and Community Development Director  
City of Union City  
34009 Alvarado-Niles Road  
Union City, Ca 94587  
[carmelac@unioncity.org](mailto:carmelac@unioncity.org)  
(510) 675-5316

Integral Communities, the project applicant, is proposing the Station East Residential/Mixed Use Project (project), an infill project involving the redevelopment of an approximately 26.5-acre site (project site) in the City of Union City, Alameda County, California. As Lead Agency under the California Environmental Quality Act (CEQA), the City of Union City has determined that the project may have a significant effect on the environment and that an Environmental Impact Report (EIR) will be prepared to evaluate these potential effects.

This Notice of Preparation (NOP) solicits guidance from regulatory agencies about the scope and content of environmental information to be included in the EIR related to the agencies' statutory responsibilities. The agencies will use the City's EIR when considering their permits or other approvals related to the project. The NOP also provides an opportunity

for interested parties to inform the City of the environmental issues they would like addressed in the EIR.

## **Project Description**

The project site (Assessor's Parcel Numbers 87-21-5-2; 87-21-13-1; 87-21-13-2; 87-23-12; 87-23-10; and Parcel 2A of Lot Line Adjustment 03-2019 [including 87-21-4-2 (portion), 87-23-13, and 87-23-14 (portion)]<sup>1</sup>) is currently occupied by existing and vacant industrial uses (totaling approximately 86,500 square feet [sf]), surface parking lots, and disked fields. The project proposes the demolition of the existing buildings and surface parking lots, and the development of up to 30,770 sf of commercial space and up to 964 new residential units (apartments, condominiums, and town-house style condominiums), for a total development of approximately 1.8 million sf. As shown in the conceptual site plan attached as Figure 2 to this NOP, the project site would include eleven planning areas. Proposed buildings to be developed at the project site would be between three and six stories in height. Primary vehicular access to the project site would be via Decoto Road on the west side of the project site, 7<sup>th</sup> Street on the north side of the project site, and Bradford Way and Zwissig Way on the east side of the project site. The project proposes approximately 5 acres of public and private open space that would include community parks, passive open space, urban plazas, and private amenity space for residents. Pedestrian, bicycle, and additional vehicular access would be provided throughout the project site. The proposed project would include the following new streets within the project site: M Street, 8<sup>th</sup> Street and 9<sup>th</sup> Street in the east-west direction and K Street and L Street in the north-south direction. Each planning area would include parking sufficient to serve the proposed development and all public streets would include on-street parking. Construction of the proposed project would begin in mid-2021 and occur in two phases over approximately five years, with anticipated completion in late 2025.

The project site is identified in the 2040 Union City General Plan as Station East Mixed Use (SEMU). The project site is currently zoned Research and Development Campus (RDC). The applicant has applied for the following entitlements:

- General Plan Amendment to update land use targets for the Station East area and reduce minimum density to 25 units per acre provided a certain average density is maintained;

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<sup>1</sup> Please note that the applicant recently completed a lot line adjustment to modify some parcels to better align with the project boundary. These are denoted with the term "portion." The Assessor's Office has yet to assign new assessor parcel numbers for these lots.

- Creation of a new zoning district for consistency with the General Plan designation of Station East Mixed Use and a zoning map amendment to apply this new zoning district to the project site;
- Update to DIPSA Specific Plan (referred to as the Station District Specific Plan) to reflect new land uses, circulation, design attributes, etc.;
- Tentative Parcel Map to facilitate block configuration and creation of condominiums and townhomes;
- Site Development Review approval for building and site design; and
- Development Agreement.

### **Probable Environmental Effects and Scope of the EIR**

The EIR for the Station East Residential/Mixed Use Project will describe existing environmental resources and current conditions at the project site and surrounding area. The EIR will evaluate the environmental impacts of implementing the project and will identify feasible mitigation measures that may lessen or avoid such impacts. The EIR is intended to be a project-level document. The analysis will focus on the reasonably foreseeable direct and indirect physical environmental effects that could result from implementation of the project.

Each of the following CEQA environmental issue areas will be addressed in the EIR: Aesthetics, Agriculture and Forestry Resources, Air Quality, Biological Resources, Cultural Resources, Energy Resources, Geology and Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water, Quality, Land Use and Planning, Mineral Resources, Noise and Vibration, Population and Housing, Public Services, Recreation, Tribal Cultural Resources, Utilities and Service Systems, Transportation and Traffic, and Wildfire. There is reasonable potential that the project would result in less-than-significant environmental effects related to Aesthetics, Agriculture and Forestry Resources, Mineral Resources, and Wildfire; thus, it is anticipated that these topics will be discussed in the “Less than Significant Impacts” chapter in the EIR.



**NOP Comment Period:** In accordance with the time limits identified in State law, please respond to this NOP with your comments on the scope and content of the EIR at the earliest possible date, but **not later than 5:00 p.m. on April 9, 2020**. Please include the name of the contact person for your agency or organization (if applicable) and submit written comments to:

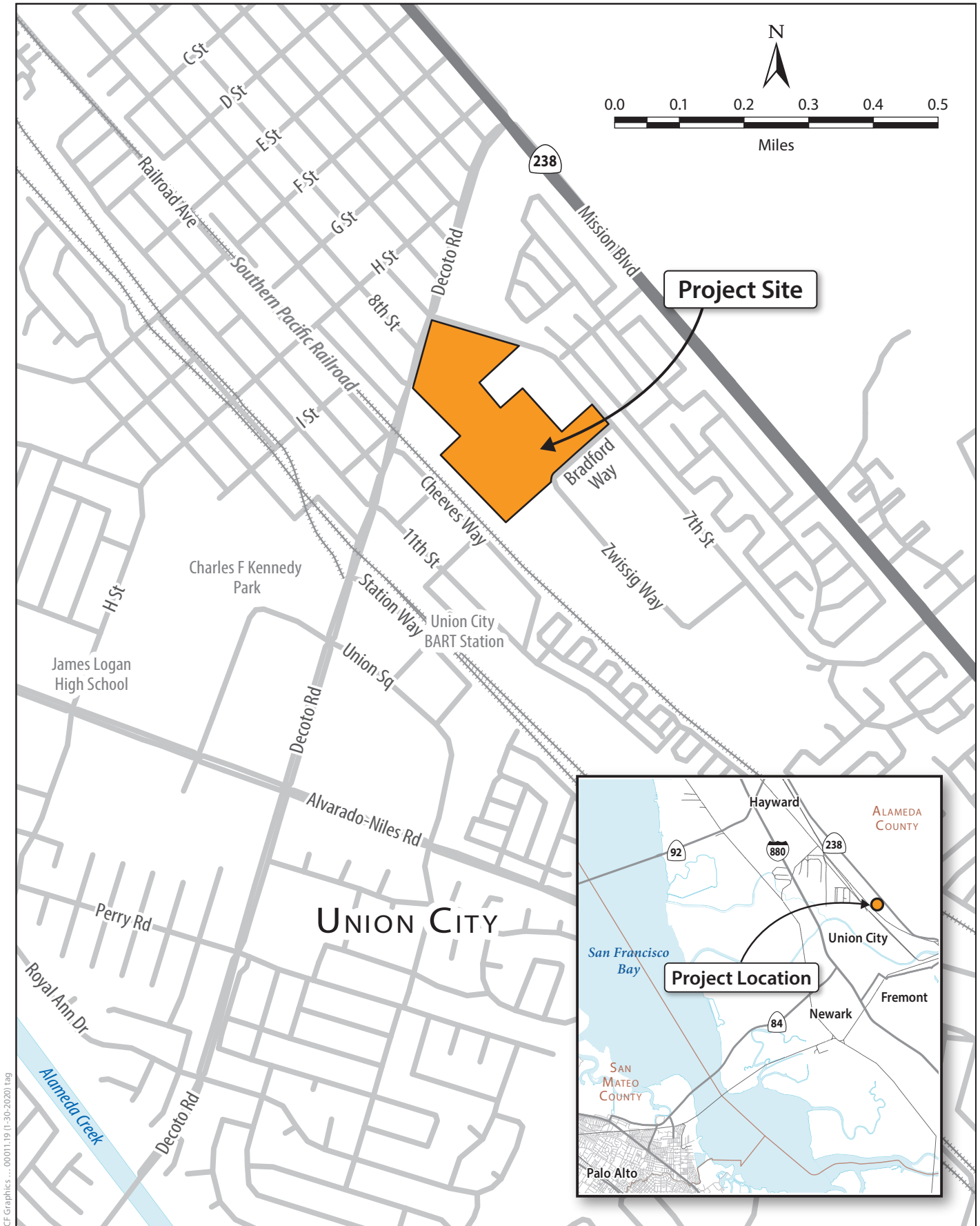
Carmela Campbell, AICP  
Economic and Community Development Director  
City of Union City  
34009 Alvarado-Niles Road  
Union City, CA 94587  
[carmelac@unioncity.org](mailto:carmelac@unioncity.org)

**Scoping Meeting:** To facilitate responses to the NOP, the City will hold a scoping meeting on Monday, March 23, 2020, at 7:00 p.m. at Studio 11, 34626 11<sup>th</sup> Street, Union City, CA 94587.

### **Attachments**

1. Figure 1: Project Location
2. Figure 2: Proposed Project Conceptual Site Plan

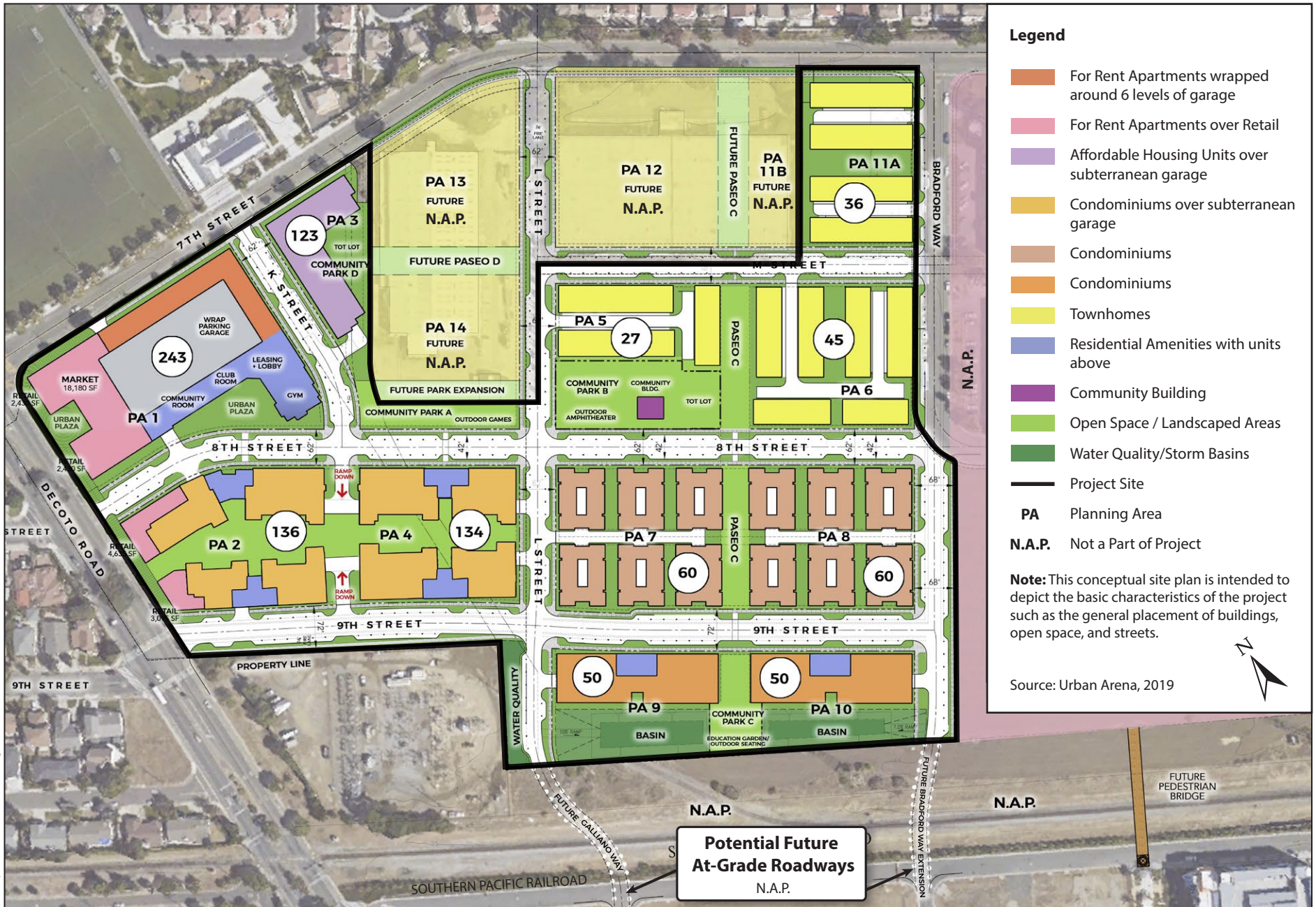




ICF Graphics ... 00011.19 (1-30-2020) tag



**Figure 1**  
**Project Location**





**BUILDING AMERICA®**

March 31, 2020

Carmela Campbell  
Economic & Community Development Director  
City of Union City  
34009 Alvarado-Niles Road  
Union City, CA 94587  
carmelac@unioncity.org

Re: Comments regarding application for Station East Residential/Mixed Use Project, for approximately 26.5 acres generally known as Parcel Nos. 87-21-5-2; 87-21-13-1; 87-21-13-2; 87-23-12; 87-23-10; and Parcel 2A of Lot Line Adjustment 3-2019 including portions of Parcel Nos. 87-21-4-2; 87-23-13; and 87-23-14 (the "Application")

Dear Ms. Campbell:

Thank you for allowing Union Pacific Railroad Company ("UP") the opportunity to submit the following comments in response to the notice on the above-referenced Application. UP is a Delaware corporation that owns and operates a common carrier railroad network in the western half of the United States, including the State of California. UP's rail network is vital to the economic health of California and the nation as a whole and its rail service to customers in California is crucial to the future success and growth of those customers.

The proposed location that is the subject of the Application, namely approximately 26.5 acres generally bound by Decoto Road to the North, 7<sup>th</sup> Street to the East, Bradford Way to the South, and the Union Pacific Railroad Niles Subdivision rail line to the West ("Location"), is adjacent to UP's operating property. Any land planning decisions should consider that train volumes near the Location may increase in the future. UP also asks that the City and the applicant keep in mind that this is a vital rail corridor and nearby land uses should be compatible with this continuing rail use.

UP understands that Integral Communities ("Applicant") is developing a residential project that abuts UP's Niles Subdivision in the City. UP's Industry and Public Projects group is currently working with Applicant and City on upgrading public crossings of the Niles and Oakland Subdivisions that cross Decoto Road. A Diagnostic meeting with the City, Applicant, California Public Utilities Commission ("CPUC") and UP will be arranged to go over UP requirements for upgrade to these crossings. UP has entered into a Reimbursement Agreement Preliminary Engineering Services with the City. Upgrades to the street and rail safety devices should be included in the Environmental Impact Report ("EIR").

UP's Network Planning and Operations group requires Applicant construct fencing along the western property boundary of its development to prevent future inhabitants from crossing the Niles Subdivision to get to the Union City multimodal station to the west of the Niles Subdivision. Applicant has agreed to construct said fencing in order to prevent unlawful trespass onto the UP main line right of way. A diagram is attached showing the fencing areas. Such requirement should be made part of the EIR.

Noted in the plat map attached to the NOP/EIR notice is the notation and depiction of "Potential Future At-Grade Roadways" showing two potential at-grade road crossings of the Niles Sub. Such at-grade crossings of UP's Niles Subdivision would not be allowed.

### Increased Traffic Impact and Safety Concerns

The safety of UP's employees, customers, adjoining land owners, and the communities we operate through is our top priority. Any increase in traffic from the proposed change may render inadequate the current safety devices in place on any nearby at-grade crossings. Additionally, an increase of pedestrian and vehicular traffic may conflict with train operations causing trains to proceed more slowly through the area, and/or make more frequent emergency stops, which would make rail service less effective and efficient. Should this Application be approved, UP will want Applicant, City and CPUC to meet as outlined above to review upgrades to rail safety devices and to the street at the two rail crossings in Decoto Road at UP's Niles and Oakland Subdivisions.

### Use of UP Right-of-Way

UP is concerned that any construction equipment used in this project at this Location will impede its right-of-way. UP objects to any use of its right-of-way that is not separately approved by the UP real estate department. UP must maintain sufficient right-of-way for future railroad expansion or connection track. UP also requires its land be retained for maintenance purposes.

### Trespassing

Any increase in pedestrian traffic may increase the likelihood of trespassing onto the railroad right-of-way. As noted above, UP requires Applicant construct fencing along the westerly side of their development as shown in the attached map. For example, vandal resistant fencing at least 8 feet or taller (without impairing visibility), pavement markings and "no trespassing" signs designed to prevent individuals from trespassing onto the railroad tracks should be considered. Buffers and setbacks should also be required adjacent to the right-of-way.

### Noise and Vibration Impact

UP's 24-hour rail operations generate the noise and vibration one would expect from an active railway. Any increase in pedestrian and vehicular traffic may result in additional horn use by railroad employees. As a mitigation measure, the City should consider and make the public aware of the daytime and nighttime noise levels naturally occurring with rail service, including

sounding horns at vehicle crossings where required, as well as the pre-existing and predictably-occurring vibration. These disclosures should note that train volume may increase in the future. The Application's development plans should also include appropriate mitigation measures, such as construction of sound barrier walls or landscape buffers, and/or use of sound-proofing materials and techniques.

#### Drainage and Project Construction

UP requests the City ensure that the drainage plan relating to the Project does not shift storm water drainage toward UP property and infrastructure. Any runoff onto UP's property may cause damage to its facilities resulting in a potential public safety issue. If the Project is approved, we ask that the City require the developer to mitigate all safety risks and the impacts of the railroad's 24-hour operations during the construction of the Project, including contacting UP to arrange for flaggers for work performed within twenty-five feet (25') of the nearest track.

#### At-Grade Rail Crossing and Sight Line Safety

The safety of UP's employees, customers, adjoining land owners, and the communities we operate through is our top priority. At-grade rail crossings are areas where railroad operations and the public come into close contact. As addressed above, appropriate modifications to the street and warning devices on the nearby rail crossings will need to be included as part of the Project. Development at the Project location may result in poor site lines for vehicular traffic approaching the at-grade crossings. Should this Project continue, UP has required of Applicant an onsite meeting with the CPUC, City and any other appropriate parties be scheduled to discuss potential impact and possible upgrades to mitigate any safety risks resulting from reduced visibility.

UP appreciates Applicant and City giving due consideration to the above concerns, as this proposed Application may result in impacts to land use and public safety. Please give notice to UP of all future hearings and other matters with respect to the Application as follows:

Robert M. Krantz – Director Real Estate  
Union Pacific Railroad Company  
2603 Camino Road, Suite 200  
San Ramon, CA 94583  
(925) 242-2100  
[rmkrantz@up.com](mailto:rmkrantz@up.com)

Please do not hesitate to contact Rob Krantz if you have any questions or concerns.

Sincerely,

A handwritten signature in black ink, appearing to read "M Roebke". The signature is fluid and cursive, with the first letter "M" being particularly large and stylized.

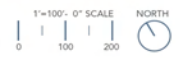
Madeline E. Roebke  
Senior General Attorney  
Union Pacific Railroad Company

cc: Rob Krantz  
Francisco Castillo  
Adrian Guerrero  
Peggy Ygbuhay



**STATION EAST**  
 UNION CITY | CALIFORNIA  
 INTEGRAL COMMUNITIES | 13-160  
 DATE 07 | 17 | 19

- LEGEND**
- NEW STEEL FENCE (7')
  - - - - - NEW CHAIN LINK FENCE
  - - - - - EXISTING CHAIN LINK FENCE



SITE PLAN





DIRECTORS

AZIZ AKBARI  
JAMES G. GUNTHER  
JUDY C. HUANG  
PAUL SETHY  
JOHN H. WEED

43885 SOUTH GRIMMER BOULEVARD • FREMONT, CALIFORNIA 94538  
(510) 668-4200 • FAX (510) 770-1793 • www.acwd.org

MANAGEMENT

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JONATHAN WUNDERLICH  
Finance

April 9, 2020

VIA ELECTRONIC MAIL

Carmela Campbell ([CarmelaC@unioncity.org](mailto:CarmelaC@unioncity.org))  
Economic and Community Development Director  
City of Union City  
34009 Alvarado-Niles Road  
Union City, CA 94587

Dear Ms. Campbell:

Subject: Notice of Preparation of an Environmental Impact Report for the Station East Residential/Mixed Use Project

Alameda County Water District (ACWD) has reviewed the Notice of Preparation of an Environmental Impact Report (EIR) for the Station East Residential/Mixed Use Project ("Project") and would appreciate your consideration of the following comments while developing the EIR:

1. Description of Project: The EIR should acknowledge State regulations regarding Senate Bills 610 and 221, Water Supply Assessment and Verification. Pursuant to these regulations, for any projects so defined in Water Code Section 10912, the City shall request ACWD to determine whether the projected water demand associated with a proposed project was included as part of the most recently adopted Urban Water Management Plan (UWMP) in accordance with Senate Bill 610. Similarly, for any subdivision so defined in Government Code Section 66473.7, the City of Union City shall request from ACWD a written verification of the availability of a sufficient water supply in accordance with Senate Bill 221. The City of Union City has already requested a Water Supply Assessment from ACWD for the Station East Residential/Mixed Use Project. This request is currently under review.
2. ACWD Groundwater Facilities: Local runoff along with imported water is percolated into the Niles Cone through recharge in Alameda Creek itself and through recharge ponds within the Quarry Lakes Regional Recreational Area and adjacent areas (Quarry Lakes). The water is subsequently recovered through groundwater production wells owned and operated by both public agencies and private users. ACWD primarily provides retail water service to approximately 357,000 people in the cities of Fremont, Newark, and Union City. Therefore, it is imperative that ACWD protects the water quality and ensures the continued use of



the groundwater basin for water supply for ACWD's customers. ACWD requests that the following potentially significant impacts to the protection of groundwater be addressed by the EIR:

- a. *Groundwater Well Protection/Destruction:* ACWD has identified at least twenty-two (22) monitoring wells located within the Project area. In order to protect the groundwater basin, each well located within the project area must be in compliance with ACWD Ordinance No. 2010-01 and must be either protected or properly destroyed prior to or during construction activities. If the well(s) are to remain, a letter so indicating must be sent to ACWD. If the well(s) are: 1) no longer required by any regulatory agency; 2) no longer monitored on a regular basis; or 3) damaged, lost, or the surface seal is jeopardized in any way during the construction process, the wells must be destroyed in accordance with ACWD requirements.
- b. *Existing Hazardous Material Contamination:* The EIR should acknowledge that as part of ACWD's Groundwater Protection Program, ACWD entered into Cooperative Agreements with the California Regional Water Quality Control Board – San Francisco Bay Region (Regional Board) and the City of Union City, which allows ACWD to provide technical oversight for the investigation and remediation of Leaking Underground Fuel Tank (LUFT) sites and sites where the pollution is attributed to spills or leaks from structures other than underground fuel tanks now referred to as Site Cleanup Program sites or SCP (formerly known as Spills, Leaks, Investigation, and Cleanup sites or SLIC sites).

The EIR should also identify properties within the proposed development where known open or closed LUFT and SCP sites or their plumes exist. In addition, project proponents must notify ACWD if there is a proposal to excavate or disturb soil and/or groundwater in impacted areas within the proposed development that have residual contamination and site management requirements. The EIR should also address the potential impacts that dewatering activities and construction may have on the investigation and cleanup of those sites.

There are also a number of properties within the project area where Phase II assessments have been performed recently that have not yet submitted data to ACWD as required by their drilling permit. Project proponents should initiate coordination with appropriate regulatory agencies, such as the Regional Board and ACWD, prior to any proposed development activities at or near any known or suspected cleanup sites.

- c. *Dewatering:* Since groundwater is an important component of ACWD's water resources, and groundwater is shallow within most of the project areas, the EIR should address temporary and permanent dewatering activities and the potential impact of the project on the local drinking water supply. It is critical that the amount

of water that may be extracted by dewatering be estimated and documented in the EIR. Alternative designs should be evaluated that would minimize the amount of dewatering required during and subsequent to construction. Groundwater losses due to dewatering should be measured and may be subject to a replenishment assessment fee. Mitigation measures should be proposed to replace all significant losses of ACWD's water supplies. ACWD regulates the installation and destruction of dewatering wells under ACWD's Ordinance No. 2010-01. ACWD permits are required for dewatering well installations and destructions.

- d. *Drilling Permit Requirement:* As required by ACWD Ordinance No. 2010-01, drilling permits are required prior to the start of any subsurface drilling activities for wells, exploratory holes, and other excavations within the City. Application for a permit may be obtained from ACWD's Engineering Department, at 43885 South Grimmer Boulevard, Fremont or online at <http://www.acwd.org>. Before a permit is issued, a cash or check deposit is required in a sufficient sum to cover the fee for issuance of the permit or charges for field investigation and inspection. All permitted work requires scheduling for inspection; therefore, all drilling activities must be coordinated with ACWD prior to the start of any field work.

### 3. Utilities and Service Systems:

- a. If any modifications of existing water facilities or new water service to the property are required, the project proponent shall contact ACWD's Engineering Department. The Project Description should reflect that any existing water services which will not be used in the new development must be removed by ACWD.
- b. For existing structures to be demolished or if the project requires extensive grading or construction in the vicinity of existing public water meters, project proponents should contact ACWD at least 60 days prior to any demolition or construction work to request that existing water meters be disconnected or removed in order to protect ACWD's distribution system from activities related to the demolition, grading, or construction. The Project Description should reflect this process.
- c. Particular attention should be paid to any proposed work underneath existing District asbestos cement pipe (ACP) water mains fronting the project site. ACWD has an existing 14- inch ACP water main located within 7<sup>th</sup> Street, south of Daggett Avenue, and an existing 12-inch ACP water main located within Bradford Way. No excavations or crossings under the ACP are allowed. If utility installations below the ACP are required for the project, the District may replace a portion of the existing main with PVC or steel pipe. Such replacement must be done by District forces at the developer's expense. The Project Description should reflect the potential need for such utility replacement work to occur.

- d. Residential domestic water service to each building containing at least 50 residential units shall be served from two (2) or more redundant master metered service connections. Each redundant service connection shall be served from separate water mains per Section 4.2.4-e of the District's Development Specifications for Public Water System Extensions, located on the District's website ([www.acwd.org](http://www.acwd.org)).
- e. Submeters: The District requires private sub-metering of all master metered units in compliance with Water Code Division 1, Chapter 8, Article 5 for newly constructed multi-unit residential structures served by master water meters. This requirement should be included in the Project Description and conditions of development. Water service will not be provided until the City has inspected and certified that individual submeters to each dwelling unit have been installed and tested. It is the District's understanding that onsite sub-meters are under the jurisdiction of the California Department of Food and Agriculture, Division of Measurement Standards (CDFA DMS). The District recommends that the project proponents contact CDFA DMS regarding any requirements they may have.
- f. The project shall be designed to implement water efficient plumbing fixtures and irrigation systems at both residential and non-residential developments, including but not limited to, those listed in the Water Efficiency Measures for New Development, located on the District's website (<http://acwd.org/DocumentCenter/View/421>).
- g. Existing Hazardous Material Contamination: The ability to install a public water system within the Project would be conditioned upon confirmation that the soil, groundwater, or soil gas vapors do not pose a risk to the health and safety of workers either during installation of the public water system or during its long-term routine operation and maintenance.

The public water system extension and all appurtenances must be constructed in "clean corridors," which would be assured by either further testing of native soil , groundwater and/or soil vapors along the proposed public water system alignments or by use of clean imported fill as backfill for all trenches excavated for any part of the public water system. The use of upgraded materials, including but not limited to, all steel pipelines with upgraded gaskets, may be required.

- h. ACWD should be listed in the EIR as a permitting agency and that the project proponent will need to coordinate with ACWD for all required ACWD permits.
- i. During the COVID-19 pandemic, and while shelter in place orders are in effect, ACWD will not support field construction-related activities nor extend water services to the site unless the City of Union City determines that the Project and such work are in compliance with the applicable orders.

4. ACWD Contacts: The following ACWD contacts are provided so that the City of Union City can coordinate with ACWD as needed during the CEQA process:
- Michelle Myers, Groundwater Resources Manager at (510) 668-4454, or by email at [michelle.myers@acwd.com](mailto:michelle.myers@acwd.com), for coordination regarding ACWD's groundwater resources.
  - Kit Soo, Well Ordinance Program Coordinator, at (510) 668-4455, or by email at [kit.soo@acwd.com](mailto:kit.soo@acwd.com) for coordination regarding groundwater wells and drilling permits.
  - Juni Rotter, Development Services Manager, at (510) 668-4472, or by email at [juniet.rotter@acwd.com](mailto:juniet.rotter@acwd.com), for coordination regarding public water systems and water services.
  - Thomas Niesar, Water Supply and Planning Manager, at (510) 668-6549, or by email at [thomas.niesar@acwd.com](mailto:thomas.niesar@acwd.com), for coordination regarding water supply planning.

Thank you for the opportunity to comment on the Project at this time.

Sincerely,



Laura J. Hidas  
Manager of Water Resources

jr/mh

By E-mail

cc: Ed Stevenson, ACWD  
Michelle Myers, ACWD  
Thomas Nieser, ACWD  
Devon Becker, ACWD  
Kit Soo, ACWD

**Appendix 4.1-1**  
**Air Quality and Greenhouse Gases Construction and Operational Analysis**



# Construction Analysis





**Max Daily Unmitigated Construction Emissions (lbs/day)**

**Maxiumn Daily Emissions (entire project)**

<b>Year</b>	<b>ROG</b>	<b>NOx</b>	<b>CO</b>	<b>SO2</b>	<b>PM10 Dust</b>	<b>PM10 Ex</b>	<b>PM10 Total</b>	<b>PM2.5 Dust</b>	<b>PM2.5 Ex</b>	<b>PM2.5 Total</b>
2021	8	103	58	0	9	4	12	4	3	7
2022	51	71	73	0	8	3	11	2	2	5
2023	47	30	40	0	8	1	9	2	1	3
2024	66	30	41	0	9	1	10	2	1	3
2025	22	19	25	0	3	1	4	1	1	1

**Max Daily Emissions (lbs/day)**

**Maxiumn Daily Mitigated Emissions (entire project)**

<b>Year</b>	<b>ROG</b>	<b>NOx</b>	<b>CO</b>	<b>SO2</b>	<b>PM10 Dust</b>	<b>PM10 Ex</b>	<b>PM10 Total</b>	<b>PM2.5 Dust</b>	<b>PM2.5 Ex</b>	<b>PM2.5 Total</b>
2021	2	18	59	0	7	0	7	2	0	2
2022	8	7	74	0	7	0	8	2	0	2
2023	7	4	46	0	7	0	7	2	0	2
2024	9	4	40	0	8	0	8	2	0	2
2025	3	3	26	0	3	0	3	1	0	1

**Estimated Unmitigated Construction Criteria Pollutants and Precursors for Buildout of Station East**

Year	Tons per Year									
	ROG	NOx	CO	SO2	PM10 Dust	PM10 Ex	PM10 Total	PM2.5 Dust	PM2.5 Ex	PM2.5 Total
2021	0.6	7.2	4.5	0.0	0.5	0.3	0.7	0.2	0.2	0.5
2022	2.7	6.9	7.1	0.0	0.8	0.2	1.1	0.2	0.2	0.4
2023	5.9	3.8	5.0	0.0	1.0	0.1	1.1	0.3	0.1	0.4
2024	4.7	3.5	4.6	0.0	0.9	0.1	1.0	0.2	0.1	0.3
2025	2.0	2.3	3.0	0.0	0.4	0.1	0.5	0.1	0.1	0.2

**Mitigated Construction Criteria Pollutants and Precursors for Buildout of Station East**

Year	Tons per Year									
	ROG	NOx	CO	SO2	PM10 Dust	PM10 Ex	PM10 Total	PM2.5 Dust	PM2.5 Ex	PM2.5 Total
2021	0.1	1.1	4.6	0.0	0.4	0.0	0.4	0.1	0.0	0.1
2022	1.0	0.7	7.1	0.0	0.7	0.0	0.7	0.2	0.0	0.2
2023	2.1	0.5	5.7	0.0	0.9	0.0	0.9	0.2	0.0	0.2
2024	1.7	0.5	4.5	0.0	0.8	0.0	0.8	0.2	0.0	0.2
2025	0.7	0.3	3.1	0.0	0.3	0.0	0.3	0.1	0.0	0.1

**Estimated Unmitigated Construction GHGs for Buildout of Station East**

Year	Metric Tons per Year			
	CO2	CH4	N2O	CO2e
2021	1,119	0	0	1,125
2022	1,815	0	0	1,821
2023	1,601	0	0	1,604
2024	1,300	0	0	1,303
2025	739	0	0	742
Total	6,575	1	0	6,594

0.0 0.1  
 -0.899963106 -0.16929527  
 0.0 0.2  
 -0.919364724 -0.497334296

**Estimated Energy Consumption for Buildout of Station East**

Annual Energy 166 Mwh

**Estimated Fuel Consumption for Buildout of Station East**

Year	Gasoline	Diesel
2021	2,221	106,886
2022	63,455	122,493
2023	81,127	86,273
2024	59,880	75,154
2025	26,323	49,211
Total	233,007	440,017

Station East - Phase 1 Construction - Alameda County, Annual

**Station East - Phase 1 Construction  
Alameda County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	1,124.00	Space	5.12	449,600.00	0
Parking Lot	214.00	Space	0.98	85,600.00	0
Apartments Mid Rise	683.00	Dwelling Unit	14.57	1,278,379.00	1953
Regional Shopping Center	30.77	1000sqft	0.34	30,770.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	63
<b>Climate Zone</b>	5			<b>Operational Year</b>	2022
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity</b>	641.35	<b>CH4 Intensity</b>	0.029	<b>N2O Intensity</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - Construction analysis only  
 Land Use - lot acreage scaled by SF; land use data provided by applicant  
 Construction Phase - schedule provided by applicant  
 Trips and VMT - total hauling trips for demolition provided by applicant  
 Demolition -  
 Grading - provided by applicant; assumed entire site graded  
 Architectural Coating -  
 Woodstoves -  
 Energy Use -  
 Off-road Equipment - defaults from RCEM for utilities phase  
 Construction Off-road Equipment Mitigation - assumed Tier 4 final mitigation; and implementation of BAAQMD's Construction Measures  
 Area Mitigation - offmodeled

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	20.00	107.00
tblConstructionPhase	NumDays	35.00	107.00
tblConstructionPhase	NumDays	20.00	28.00
tblConstructionPhase	NumDays	370.00	640.00
tblConstructionPhase	NumDays	20.00	435.00
tblGrading	AcresOfGrading	267.50	26.50
tblGrading	MaterialExported	0.00	80,000.00
tblLandUse	LandUseSquareFeet	683,000.00	1,278,379.00
tblLandUse	LotAcreage	10.12	5.12

tblLandUse	LotAcreage	1.93	0.98
tblLandUse	LotAcreage	17.97	14.57
tblLandUse	LotAcreage	0.71	0.34
tblOffRoadEquipment	OffRoadEquipmentType		Air Compressors
tblOffRoadEquipment	OffRoadEquipmentType		Generator Sets
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Scrapers

## 2.0 Emissions Summary

### 2.1 Overall Construction Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.5991	7.1868	4.3908	0.0121	0.4733	0.2659	0.7392	0.2127	0.2471	0.4597	0.0000	1,096.202	1,096.2025	0.2193	0.0000	1,101.686
2022	2.4439	4.6867	4.9437	0.0156	0.7737	0.1426	0.9162	0.2085	0.1342	0.3427	0.0000	1,415.461	1,415.4614	0.1380	0.0000	1,418.910
2023	6.1290	3.9435	5.0097	0.0174	1.0370	0.1077	1.1447	0.2792	0.1018	0.3810	0.0000	1,590.343	1,590.3435	0.1121	0.0000	1,593.145
2024	2.2135	2.4101	2.9602	0.0107	0.6310	0.0593	0.6904	0.1700	0.0559	0.2260	0.0000	972.5992	972.5992	0.0705	0.0000	974.3613
<b>Maximum</b>	<b>6.1290</b>	<b>7.1868</b>	<b>5.0097</b>	<b>0.0174</b>	<b>1.0370</b>	<b>0.2659</b>	<b>1.1447</b>	<b>0.2792</b>	<b>0.2471</b>	<b>0.4597</b>	<b>0.0000</b>	<b>1,590.343</b>	<b>1,590.3435</b>	<b>0.2193</b>	<b>0.0000</b>	<b>1,593.145</b>

### Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1444	1.7923	4.6569	0.0121	0.2730	0.0169	0.2900	0.1121	0.0167	0.1289	0.0000	1,096.201	1,096.2017	0.2193	0.0000	1,101.685
2022	2.2108	2.2759	5.1704	0.0156	0.7737	0.0151	0.7887	0.2085	0.0146	0.2231	0.0000	1,415.460	1,415.4609	0.1380	0.0000	1,418.909
2023	5.9462	2.2114	5.1706	0.0174	1.0370	0.0133	1.0504	0.2792	0.0128	0.2920	0.0000	1,590.343	1,590.3431	0.1121	0.0000	1,593.144
2024	2.1096	1.4094	3.0712	0.0107	0.6310	8.1700e-003	0.6392	0.1700	7.8600e-	0.1779	0.0000	972.5989	972.5989	0.0705	0.0000	974.3610
<b>Maximum</b>	<b>5.9462</b>	<b>2.2759</b>	<b>5.1706</b>	<b>0.0174</b>	<b>1.0370</b>	<b>0.0169</b>	<b>1.0504</b>	<b>0.2792</b>	<b>0.0167</b>	<b>0.2920</b>	<b>0.0000</b>	<b>1,590.343</b>	<b>1,590.3431</b>	<b>0.2193</b>	<b>0.0000</b>	<b>1,593.144</b>

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>8.56</b>	<b>57.82</b>	<b>-4.42</b>	<b>0.00</b>	<b>6.87</b>	<b>90.70</b>	<b>20.69</b>	<b>11.55</b>	<b>90.36</b>	<b>41.69</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	4-15-2021	7-14-2021	3.6204	1.0637
2	7-15-2021	10-14-2021	2.9013	0.7468

3	10-15-2021	1-14-2022	1.4496	0.1310
4	1-15-2022	4-14-2022	1.4188	0.3894
5	4-15-2022	7-14-2022	1.2377	0.7580
6	7-15-2022	10-14-2022	1.9609	1.4531
7	10-15-2022	1-14-2023	2.7202	2.1949
8	1-15-2023	4-14-2023	2.5001	2.0266
9	4-15-2023	7-14-2023	2.5132	2.0345
10	7-15-2023	10-14-2023	2.5435	2.0595
11	10-15-2023	1-14-2024	2.5505	2.0722
12	1-15-2024	4-14-2024	2.4767	2.0349
13	4-15-2024	7-14-2024	1.2835	0.8745
14	7-15-2024	9-30-2024	0.4562	0.2753
		Highest	3.6204	2.1949

### 3.0 Construction Detail

#### Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Demolition	Demolition	4/15/2021	9/12/2021	5	107	
2	Grading	Grading	4/15/2021	9/12/2021	5	107	
3	Trenching	Trenching	9/13/2021	3/11/2022	5	130	
4	Paving	Paving	2/1/2022	3/10/2022	5	28	
5	Building Construction	Building Construction	3/12/2022	8/24/2024	5	640	
6	Architectural Coating	Architectural Coating	9/1/2022	5/1/2024	5	435	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 26.5

Acres of Paving: 6.1

Residential Indoor: 2,588,717; Residential Outdoor: 862,906; Non-Residential Indoor: 46,155; Non-Residential Outdoor: 15,385; Striped Parking

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41

Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Trenching	Rubber Tired Dozers	0	8.00	247	0.40
Trenching	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Trenching	Air Compressors	1	8.00	78	0.48
Trenching	Generator Sets	1	8.00	84	0.74
Trenching	Plate Compactors	1	8.00	8	0.43
Trenching	Graders	1	8.00	187	0.41
Trenching	Pumps	1	8.00	84	0.74
Trenching	Forklifts	1	8.00	89	0.20
Trenching	Scrapers	2	8.00	367	0.48

### Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor Vehicle	Hauling
Demolition	6	15.00	0.00	215.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	10,000.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	10	25.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	726.00	166.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	145.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction

- Use Cleaner Engines for Construction Equipment
- Water Exposed Area
- Reduce Vehicle Speed on Unpaved Roads

### 3.2 Demolition - 2021

#### Unmitigated Construction On-Site

ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
-----	-----	----	-----	----------	---------	------------	----------	---------	-------	----------	-------	-----------	-----	-----	------



Category	tons/yr										MT/yr					
Fugitive Dust					0.0233	0	0.0233	3.52E-03	0	3.52E-03	0	0	0	0	0	0
Off-Road	0.1693	1.6821	1.1537	2.08E-03		0.083	0.083		0.0771	0.0771	0	181.9042	181.9042	0.0512	0	183.1842
<b>Total</b>	<b>0.1693</b>	<b>1.6821</b>	<b>1.1537</b>	<b>2.08E-03</b>	<b>0.0233</b>	<b>0.083</b>	<b>0.1063</b>	<b>3.52E-03</b>	<b>0.0771</b>	<b>0.0806</b>	<b>0</b>	<b>181.9042</b>	<b>181.9042</b>	<b>0.0512</b>	<b>0</b>	<b>183.1842</b>

**Unmitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Hauling	8.6000e-	0.0290	5.3800e-	8.0000e-005	1.8200e-	9.0000e-005	1.9100e-003	5.0000e-	8.0000e-	5.9000e-	0.0000	8.1274	8.1274	4.0000e-004	0.0000	8.1375
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5600e-	1.8300e-003	0.0191	6.0000e-005	6.3500e-	4.0000e-005	6.3900e-003	1.6900e-	4.0000e-	1.7300e-	0.0000	5.4447	5.4447	1.3000e-004	0.0000	5.4480
<b>Total</b>	<b>3.4200e-003</b>	<b>0.0308</b>	<b>0.0245</b>	<b>1.4000e-004</b>	<b>8.1700e-003</b>	<b>1.3000e-004</b>	<b>8.3000e-003</b>	<b>2.1900e-003</b>	<b>1.2000e-004</b>	<b>2.3200e-003</b>	<b>0.0000</b>	<b>13.5722</b>	<b>13.5722</b>	<b>5.3000e-004</b>	<b>0.0000</b>	<b>13.5855</b>

**Mitigated Construction On-Site**

Category	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Fugitive Dust					0.0105	0.0000	0.0105	1.5900e-	0.0000	1.5900e-	0	0	0	0	0	0
Off-Road	0.0247	0.1072	1.2455	2.0800e-003		3.3000e-003	3.3000e-003		3.3000e-	3.3000e-	0	181.904	181.904	0.0512	0	183.184
<b>Total</b>	<b>0.0247</b>	<b>0.1072</b>	<b>1.2455</b>	<b>2.0800e-003</b>	<b>0.0105</b>	<b>3.3000e-003</b>	<b>0.0138</b>	<b>1.5900e-003</b>	<b>3.3000e-003</b>	<b>4.8900e-003</b>	<b>0</b>	<b>181.904</b>	<b>181.904</b>	<b>0.0512</b>	<b>0</b>	<b>183.184</b>

**Mitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Hauling	8.6000e-	0.0290	5.3800e-	8.0000e-005	1.8200e-	9.0000e-005	1.9100e-003	5.0000e-	8.0000e-	5.9000e-	0	8.1274	8.1274	4.00E-04	0	8.1375
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0	0	0	0	0	0
Worker	2.5600e-	1.8300e-003	0.0191	6.0000e-005	6.3500e-	4.0000e-005	6.3900e-003	1.6900e-	4.0000e-	1.7300e-	0	5.4447	5.4447	1.30E-04	0	5.448
<b>Total</b>	<b>3.4200e-003</b>	<b>0.0308</b>	<b>0.0245</b>	<b>1.4000e-004</b>	<b>8.1700e-003</b>	<b>1.3000e-004</b>	<b>8.3000e-003</b>	<b>2.1900e-003</b>	<b>1.2000e-004</b>	<b>2.3200e-003</b>	<b>0.0000</b>	<b>13.5722</b>	<b>13.5722</b>	<b>5.3000e-004</b>	<b>0.0000</b>	<b>13.5855</b>

**3.3 Grading - 2021**

**Unmitigated Construction On-Site**

Category	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Fugitive Dust					0.3408	0.0000	0.3408	0.1793	0.0000	0.1793	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2242	2.4824	1.6520	3.3200e-003		0.1062	0.1062		0.0977	0.0977	0.0000	291.5482	291.5482	0.0943	0.0000	293.9055

<b>Total</b>	<b>0.2242</b>	<b>2.4824</b>	<b>1.6520</b>	<b>3.3200e-003</b>	<b>0.3408</b>	<b>0.1062</b>	<b>0.4470</b>	<b>0.1793</b>	<b>0.0977</b>	<b>0.2770</b>	<b>0.0000</b>	<b>291.5482</b>	<b>291.5482</b>	<b>0.0943</b>	<b>0.0000</b>	<b>293.9055</b>
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**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0401	1.3483	0.2502	3.9200e-003	0.0847	4.1200e-003	0.0888	0.0233	3.9400e-003	0.0273	0.0000	378.0206	378.0206	0.0187	0.0000	378.4891
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4200e-003	2.4400e-003	0.0255	8.0000e-005	8.4600e-005	6.0000e-005	8.5200e-003	2.2500e-005	5.0000e-005	2.3000e-005	0.0000	7.2597	7.2597	1.7000e-004	0.0000	7.2640
<b>Total</b>	<b>0.0435</b>	<b>1.3507</b>	<b>0.2757</b>	<b>4.0000e-003</b>	<b>0.0931</b>	<b>4.1800e-003</b>	<b>0.0973</b>	<b>0.0256</b>	<b>3.9900e-003</b>	<b>0.0296</b>	<b>0.0000</b>	<b>385.2803</b>	<b>385.2803</b>	<b>0.0189</b>	<b>0.0000</b>	<b>385.7531</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1533	0.0000	0.1533	0.0807	0.0000	0.0807	0	0	0	0	0	0
Off-Road	0.0407	0.1766	1.7655	3.3200e-003		5.4300e-003	5.4300e-003		5.4300e-003	5.4300e-003	0	291.5478	291.5478	0.0943	0	293.9051
<b>Total</b>	<b>0.0407</b>	<b>0.1766</b>	<b>1.7655</b>	<b>3.3200e-003</b>	<b>0.1533</b>	<b>5.4300e-003</b>	<b>0.1588</b>	<b>0.0807</b>	<b>5.4300e-003</b>	<b>0.0861</b>	<b>0</b>	<b>291.5478</b>	<b>291.5478</b>	<b>0.0943</b>	<b>0</b>	<b>293.9051</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0401	1.3483	0.2502	3.9200e-003	0.0847	4.1200e-003	0.0888	0.0233	3.9400e-003	0.0273	0	378.0206	378.0206	0.0187	0	378.4891
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0	0	0	0	0	0
Worker	3.4200e-003	2.4400e-003	0.0255	8.0000e-005	8.4600e-005	6.0000e-005	8.5200e-003	2.2500e-005	5.0000e-005	2.3000e-005	0	7.2597	7.2597	1.70E-04	0	7.264
<b>Total</b>	<b>0.0435</b>	<b>1.3507</b>	<b>0.2757</b>	<b>4.0000e-003</b>	<b>0.0931</b>	<b>4.1800e-003</b>	<b>0.0973</b>	<b>0.0256</b>	<b>3.9900e-003</b>	<b>0.0296</b>	<b>0.0000</b>	<b>385.2803</b>	<b>385.2803</b>	<b>0.0189</b>	<b>0.0000</b>	<b>385.7531</b>

**3.4 Trenching - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1554	1.6386	1.2610	2.4900e-003		0.0723	0.0723		0.0681	0.0681	0.0000	217.1130	217.1130	0.0542	0.0000	218.4689
<b>Total</b>	<b>0.1554</b>	<b>1.6386</b>	<b>1.2610</b>	<b>2.4900e-003</b>		<b>0.0723</b>	<b>0.0723</b>		<b>0.0681</b>	<b>0.0681</b>	<b>0.0000</b>	<b>217.1130</b>	<b>217.1130</b>	<b>0.0542</b>	<b>0.0000</b>	<b>218.4689</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1900e-003	2.2800e-003	0.0238	8.0000e-005	7.9100e-003	5.0000e-005	7.9600e-003	2.1000e-003	5.0000e-005	2.1500e-003	0.0000	6.7847	6.7847	1.6000e-004	0.0000	6.7888
<b>Total</b>	<b>3.1900e-003</b>	<b>2.2800e-003</b>	<b>0.0238</b>	<b>8.0000e-005</b>	<b>7.9100e-003</b>	<b>5.0000e-005</b>	<b>7.9600e-003</b>	<b>2.1000e-003</b>	<b>5.0000e-005</b>	<b>2.1500e-003</b>	<b>0.0000</b>	<b>6.7847</b>	<b>6.7847</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>6.7888</b>

**Mitigated Construction On-Site**

Category	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Off-Road	0.0288	0.1248	1.3219	2.4900e-003		3.8400e-003	3.8400e-003		3.8400e-003	3.8400e-003	0	217.1127	217.1127	0.0542	0	218.4686
<b>Total</b>	<b>0.0288</b>	<b>0.1248</b>	<b>1.3219</b>	<b>2.4900e-003</b>		<b>3.8400e-003</b>	<b>3.8400e-003</b>		<b>3.8400e-003</b>	<b>3.8400e-003</b>	<b>0</b>	<b>217.1127</b>	<b>217.1127</b>	<b>0.0542</b>	<b>0</b>	<b>218.4686</b>

**Mitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0	0	0	0	0	0
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0	0	0	0	0	0
Worker	3.1900e-003	2.2800e-003	0.0238	8.0000e-005	7.9100e-003	5.0000e-005	7.9600e-003	2.1000e-003	5.0000e-005	2.1500e-003	0	6.7847	6.7847	1.60E-04	0	6.7888
<b>Total</b>	<b>3.1900e-003</b>	<b>2.2800e-003</b>	<b>0.0238</b>	<b>8.0000e-005</b>	<b>7.9100e-003</b>	<b>5.0000e-005</b>	<b>7.9600e-003</b>	<b>2.1000e-003</b>	<b>5.0000e-005</b>	<b>2.1500e-003</b>	<b>0</b>	<b>6.7847</b>	<b>6.7847</b>	<b>1.60E-04</b>	<b>0</b>	<b>6.7888</b>

**3.4 Trenching - 2022**

**Unmitigated Construction On-Site**

Category	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Off-Road	0.0873	0.8894	0.7535	1.5600e-003		0.0384	0.0384		0.0362	0.0362	0.0000	135.8098	135.8098	0.0338	0.0000	136.6550
<b>Total</b>	<b>0.0873</b>	<b>0.8894</b>	<b>0.7535</b>	<b>1.5600e-003</b>		<b>0.0384</b>	<b>0.0384</b>		<b>0.0362</b>	<b>0.0362</b>	<b>0.0000</b>	<b>135.8098</b>	<b>135.8098</b>	<b>0.0338</b>	<b>0.0000</b>	<b>136.6550</b>

**Unmitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8500e-003	1.2700e-003	0.0136	5.0000e-005	4.9400e-003	3.0000e-005	4.9700e-003	1.3100e-003	3.0000e-005	1.3400e-003	0.0000	4.0859	4.0859	9.0000e-005	0.0000	4.0882
<b>Total</b>	<b>1.8500e-003</b>	<b>1.2700e-003</b>	<b>0.0136</b>	<b>5.0000e-005</b>	<b>4.9400e-003</b>	<b>3.0000e-005</b>	<b>4.9700e-003</b>	<b>1.3100e-003</b>	<b>3.0000e-005</b>	<b>1.3400e-003</b>	<b>0.0000</b>	<b>4.0859</b>	<b>4.0859</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>4.0882</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0180	0.0780	0.8262	1.5600e-003		2.4000e-003	2.4000e-003		2.4000e-	2.4000e-	0	135.8097	135.8097	0.0338	0	136.6548
<b>Total</b>	<b>0.0180</b>	<b>0.0780</b>	<b>0.8262</b>	<b>1.5600e-003</b>		<b>2.4000e-003</b>	<b>2.4000e-003</b>		<b>2.4000e-003</b>	<b>2.4000e-003</b>	<b>0</b>	<b>135.8097</b>	<b>135.8097</b>	<b>0.0338</b>	<b>0</b>	<b>136.6548</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0	0	0	0	0	0
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0	0	0	0	0	0
Worker	1.8500e-	1.2700e-003	0.0136	5.0000e-005	4.9400e-	3.0000e-005	4.9700e-003	1.3100e-	3.0000e-	1.3400e-	0	4.0859	4.0859	9.00E-05	0	4.0882
<b>Total</b>	<b>1.8500e-003</b>	<b>1.2700e-003</b>	<b>0.0136</b>	<b>5.0000e-005</b>	<b>4.9400e-003</b>	<b>3.0000e-005</b>	<b>4.9700e-003</b>	<b>1.3100e-003</b>	<b>3.0000e-005</b>	<b>1.3400e-003</b>	<b>0.0000</b>	<b>4.0859</b>	<b>4.0859</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>4.0882</b>

**3.5 Paving - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0154	0.1558	0.2041	3.2000e-004		7.9500e-003	7.9500e-003		7.3100e-	7.3100e-	0.0000	28.0386	28.0386	9.0700e-003	0.0000	28.2653
Paving	1.2800e-					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0167</b>	<b>0.1558</b>	<b>0.2041</b>	<b>3.2000e-004</b>		<b>7.9500e-003</b>	<b>7.9500e-003</b>		<b>7.3100e-003</b>	<b>7.3100e-003</b>	<b>0.0000</b>	<b>28.0386</b>	<b>28.0386</b>	<b>9.0700e-003</b>	<b>0.0000</b>	<b>28.2653</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.2000e-	4.3000e-004	4.5800e-	2.0000e-005	1.6600e-	1.0000e-005	1.6700e-003	4.4000e-	1.0000e-	4.5000e-	0.0000	1.3729	1.3729	3.0000e-005	0.0000	1.3736
<b>Total</b>	<b>6.2000e-004</b>	<b>4.3000e-004</b>	<b>4.5800e-003</b>	<b>2.0000e-005</b>	<b>1.6600e-003</b>	<b>1.0000e-005</b>	<b>1.6700e-003</b>	<b>4.4000e-004</b>	<b>1.0000e-005</b>	<b>4.5000e-004</b>	<b>0.0000</b>	<b>1.3729</b>	<b>1.3729</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>1.3736</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.9300e-	0.0170	0.2421	3.2000e-004		5.2000e-004	5.2000e-004		5.2000e-	5.2000e-	0	28.0386	28.0386	9.07E-03	0	28.2653
Paving	1.2800e-					0.0000	0.0000		0.0000	0.0000	0	0	0	0	0	0

<b>Total</b>	<b>5.2100e-003</b>	<b>0.0170</b>	<b>0.2421</b>	<b>3.2000e-004</b>		<b>5.2000e-004</b>	<b>5.2000e-004</b>		<b>5.2000e-004</b>	<b>5.2000e-004</b>	<b>0</b>	<b>28.0386</b>	<b>28.0386</b>	<b>9.07E-03</b>	<b>0</b>	<b>28.2653</b>
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**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0	0	0	0	0	0
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0	0	0	0	0	0
Worker	6.2000e-	4.3000e-004	4.5800e-	2.0000e-005	1.6600e-	1.0000e-005	1.6700e-003	4.4000e-	1.0000e-	4.5000e-	0	1.3729	1.3729	3.00E-05	0	1.3736
<b>Total</b>	<b>6.2000e-004</b>	<b>4.3000e-004</b>	<b>4.5800e-003</b>	<b>2.0000e-005</b>	<b>1.6600e-003</b>	<b>1.0000e-005</b>	<b>1.6700e-003</b>	<b>4.4000e-004</b>	<b>1.0000e-005</b>	<b>4.5000e-004</b>	<b>0</b>	<b>1.3729</b>	<b>1.3729</b>	<b>3.00E-05</b>	<b>0</b>	<b>1.3736</b>

**3.6 Building Construction - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1792	1.6396	1.7182	2.8300e-003		0.0850	0.0850		0.0799	0.0799	0.0000	243.3115	243.3115	0.0583	0.0000	244.7688
<b>Total</b>	<b>0.1792</b>	<b>1.6396</b>	<b>1.7182</b>	<b>2.8300e-003</b>		<b>0.0850</b>	<b>0.0850</b>		<b>0.0799</b>	<b>0.0799</b>	<b>0.0000</b>	<b>243.3115</b>	<b>243.3115</b>	<b>0.0583</b>	<b>0.0000</b>	<b>244.7688</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0504	1.7708	0.3699	4.7200e-003	0.1145	3.3600e-003	0.1178	0.0331	3.2200e-	0.0363	0.0000	452.1499	452.1499	0.0240	0.0000	452.7491
Worker	0.2260	0.1553	1.6633	5.5100e-003	0.6027	3.9500e-003	0.6067	0.1603	3.6400e-	0.1640	0.0000	498.3511	498.3511	0.0111	0.0000	498.6277
<b>Total</b>	<b>0.2765</b>	<b>1.9261</b>	<b>2.0332</b>	<b>0.0102</b>	<b>0.7172</b>	<b>7.3100e-003</b>	<b>0.7245</b>	<b>0.1935</b>	<b>6.8600e-003</b>	<b>0.2003</b>	<b>0.0000</b>	<b>950.5009</b>	<b>950.5009</b>	<b>0.0350</b>	<b>0.0000</b>	<b>951.3768</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0344	0.2346	1.8333	2.8300e-003		4.2800e-003	4.2800e-003		4.2800e-	4.2800e-	0	243.3112	243.3112	0.0583	0	244.7685
<b>Total</b>	<b>0.0344</b>	<b>0.2346</b>	<b>1.8333</b>	<b>2.8300e-003</b>		<b>4.2800e-003</b>	<b>4.2800e-003</b>		<b>4.2800e-003</b>	<b>4.2800e-003</b>	<b>0</b>	<b>243.3112</b>	<b>243.3112</b>	<b>0.0583</b>	<b>0</b>	<b>244.7685</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0	0	0	0	0	0

Vendor	0.0504	1.7708	0.3699	4.7200e-003	0.1145	3.3600e-003	0.1178	0.0331	3.2200e-003	0.0363	0	452.1499	452.1499	0.024	0	452.7491
Worker	0.2260	0.1553	1.6633	5.5100e-003	0.6027	3.9500e-003	0.6067	0.1603	3.6400e-003	0.1640	0	498.3511	498.3511	0.0111	0	498.6277
<b>Total</b>	<b>0.2765</b>	<b>1.9261</b>	<b>2.0332</b>	<b>0.0102</b>	<b>0.7172</b>	<b>7.3100e-003</b>	<b>0.7245</b>	<b>0.1935</b>	<b>6.8600e-003</b>	<b>0.2003</b>	<b>0.0000</b>	<b>950.5009</b>	<b>950.5009</b>	<b>0.0350</b>	<b>0.0000</b>	<b>951.3768</b>

### 3.6 Building Construction - 2023 Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3462	301.3462	0.0717	0.0000	303.1383
<b>Total</b>	<b>0.2045</b>	<b>1.8700</b>	<b>2.1117</b>	<b>3.5000e-003</b>		<b>0.0910</b>	<b>0.0910</b>		<b>0.0856</b>	<b>0.0856</b>	<b>0.0000</b>	<b>301.3462</b>	<b>301.3462</b>	<b>0.0717</b>	<b>0.0000</b>	<b>303.1383</b>

### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0458	1.6972	0.4003	5.6700e-003	0.1417	1.8000e-003	0.1435	0.0410	1.7200e-003	0.0427	0.0000	543.8784	543.8784	0.0237	0.0000	544.4709
Worker	0.2605	0.1725	1.8857	6.5600e-003	0.7462	4.7700e-003	0.7510	0.1985	4.4000e-003	0.2029	0.0000	593.4084	593.4084	0.0123	0.0000	593.7147
<b>Total</b>	<b>0.3063</b>	<b>1.8697</b>	<b>2.2860</b>	<b>0.0122</b>	<b>0.8880</b>	<b>6.5700e-003</b>	<b>0.8945</b>	<b>0.2395</b>	<b>6.1200e-003</b>	<b>0.2456</b>	<b>0.0000</b>	<b>1,137.2868</b>	<b>1,137.2868</b>	<b>0.0360</b>	<b>0.0000</b>	<b>1,138.1856</b>

### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0426	0.2905	2.2698	3.5000e-003		5.3000e-003	5.3000e-003		5.3000e-003	5.3000e-003	0	301.3458	301.3458	0.0717	0	303.138
<b>Total</b>	<b>0.0426</b>	<b>0.2905</b>	<b>2.2698</b>	<b>3.5000e-003</b>		<b>5.3000e-003</b>	<b>5.3000e-003</b>		<b>5.3000e-003</b>	<b>5.3000e-003</b>	<b>0</b>	<b>301.3458</b>	<b>301.3458</b>	<b>0.0717</b>	<b>0</b>	<b>303.138</b>

### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0	0	0	0	0	0
Vendor	0.0458	1.6972	0.4003	5.6700e-003	0.1417	1.8000e-003	0.1435	0.0410	1.7200e-003	0.0427	0	543.8784	543.8784	0.0237	0	544.4709
Worker	0.2605	0.1725	1.8857	6.5600e-003	0.7462	4.7700e-003	0.7510	0.1985	4.4000e-003	0.2029	0	593.4084	593.4084	0.0123	0	593.7147
<b>Total</b>	<b>0.3063</b>	<b>1.8697</b>	<b>2.2860</b>	<b>0.0122</b>	<b>0.8880</b>	<b>6.5700e-003</b>	<b>0.8945</b>	<b>0.2395</b>	<b>6.1200e-003</b>	<b>0.2456</b>	<b>0.0000</b>	<b>1,137.2868</b>	<b>1,137.2868</b>	<b>0.0360</b>	<b>0.0000</b>	<b>1,138.1856</b>

### 3.6 Building Construction - 2024 Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
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Category	tons/yr										MT/yr					
Off-Road	0.1251	1.1427	1.3742	2.2900e-003		0.0521	0.0521		0.0490	0.0490	0.0000	197.0717	197.0717	0.0466	0.0000	198.2368
<b>Total</b>	<b>0.1251</b>	<b>1.1427</b>	<b>1.3742</b>	<b>2.2900e-003</b>		<b>0.0521</b>	<b>0.0521</b>		<b>0.0490</b>	<b>0.0490</b>	<b>0.0000</b>	<b>197.0717</b>	<b>197.0717</b>	<b>0.0466</b>	<b>0.0000</b>	<b>198.2368</b>

### Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0290	1.1016	0.2507	3.6800e-003	0.0927	1.1600e-003	0.0938	0.0268	1.1100e-003	0.0279	0.0000	353.1500	353.1500	0.0153	0.0000	353.5325
Worker	0.1594	0.1016	1.1381	4.1200e-003	0.4879	3.0600e-003	0.4910	0.1298	2.8100e-003	0.1326	0.0000	372.6192	372.6192	7.2000e-003	0.0000	372.7993
<b>Total</b>	<b>0.1884</b>	<b>1.2033</b>	<b>1.3888</b>	<b>7.8000e-003</b>	<b>0.5806</b>	<b>4.2200e-003</b>	<b>0.5848</b>	<b>0.1566</b>	<b>3.9200e-003</b>	<b>0.1605</b>	<b>0.0000</b>	<b>725.7692</b>	<b>725.7692</b>	<b>0.0225</b>	<b>0.0000</b>	<b>726.3318</b>

### Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Off-Road	0.0279	0.1900	1.4841	2.2900e-003		3.4700e-003	3.4700e-003		3.4700e-003	3.4700e-003	0	197.0715	197.0715	0.0466	0	198.2366
<b>Total</b>	<b>0.0279</b>	<b>0.1900</b>	<b>1.4841</b>	<b>2.2900e-003</b>		<b>3.4700e-003</b>	<b>3.4700e-003</b>		<b>3.4700e-003</b>	<b>3.4700e-003</b>	<b>0</b>	<b>197.0715</b>	<b>197.0715</b>	<b>0.0466</b>	<b>0</b>	<b>198.2366</b>

### Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0	0	0	0	0	0
Vendor	0.0290	1.1016	0.2507	3.6800e-003	0.0927	1.1600e-003	0.0938	0.0268	1.1100e-003	0.0279	0	353.15	353.15	0.0153	0	353.5325
Worker	0.1594	0.1016	1.1381	4.1200e-003	0.4879	3.0600e-003	0.4910	0.1298	2.8100e-003	0.1326	0	372.6192	372.6192	7.20E-03	0	372.7993
<b>Total</b>	<b>0.1884</b>	<b>1.2033</b>	<b>1.3888</b>	<b>7.8000e-003</b>	<b>0.5806</b>	<b>4.2200e-003</b>	<b>0.5848</b>	<b>0.1566</b>	<b>3.9200e-003</b>	<b>0.1605</b>	<b>0</b>	<b>725.7692</b>	<b>725.7692</b>	<b>0.0225</b>	<b>0</b>	<b>726.3318</b>

## 3.7 Architectural Coating - 2022

### Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Archit. Coating	1.8542					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.9000e-003	0.0613	0.0789	1.3000e-004		3.5500e-003	3.5500e-003		3.5500e-003	3.5500e-003	0.0000	11.1067	11.1067	7.2000e-004	0.0000	11.1247
<b>Total</b>	<b>1.8631</b>	<b>0.0613</b>	<b>0.0789</b>	<b>1.3000e-004</b>		<b>3.5500e-003</b>	<b>3.5500e-003</b>		<b>3.5500e-003</b>	<b>3.5500e-003</b>	<b>0.0000</b>	<b>11.1067</b>	<b>11.1067</b>	<b>7.2000e-004</b>	<b>0.0000</b>	<b>11.1247</b>

### Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
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Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0187	0.0129	0.1376	4.6000e-004	0.0499	3.3000e-004	0.0502	0.0133	3.0000e-004	0.0136	0.0000	41.2351	41.2351	9.2000e-004	0.0000	41.2580
<b>Total</b>	<b>0.0187</b>	<b>0.0129</b>	<b>0.1376</b>	<b>4.6000e-004</b>	<b>0.0499</b>	<b>3.3000e-004</b>	<b>0.0502</b>	<b>0.0133</b>	<b>3.0000e-004</b>	<b>0.0136</b>	<b>0.0000</b>	<b>41.2351</b>	<b>41.2351</b>	<b>9.2000e-004</b>	<b>0.0000</b>	<b>41.2580</b>

**Mitigated Construction On-Site**

Category	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.8542					0.0000	0.0000		0.0000	0.0000	0	0	0	0	0	0
Off-Road	1.2900e-	5.6000e-003	0.0797	1.3000e-004		1.7000e-004	1.7000e-004		1.7000e-	1.7000e-	0	11.1066	11.1066	7.20E-04	0	11.1247
<b>Total</b>	<b>1.8555</b>	<b>5.6000e-003</b>	<b>0.0797</b>	<b>1.3000e-004</b>		<b>1.7000e-004</b>	<b>1.7000e-004</b>		<b>1.7000e-004</b>	<b>1.7000e-004</b>	<b>0</b>	<b>11.1066</b>	<b>11.1066</b>	<b>7.20E-04</b>	<b>0</b>	<b>11.1247</b>

**Mitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0	0	0	0	0	0
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0	0	0	0	0	0
Worker	0.0187	0.0129	0.1376	4.6000e-004	0.0499	3.3000e-004	0.0502	0.0133	3.0000e-	0.0136	0	41.2351	41.2351	9.20E-04	0	41.258
<b>Total</b>	<b>0.0187</b>	<b>0.0129</b>	<b>0.1376</b>	<b>4.6000e-004</b>	<b>0.0499</b>	<b>3.3000e-004</b>	<b>0.0502</b>	<b>0.0133</b>	<b>3.0000e-004</b>	<b>0.0136</b>	<b>0</b>	<b>41.2351</b>	<b>41.2351</b>	<b>9.20E-04</b>	<b>0</b>	<b>41.258</b>

**3.7 Architectural Coating - 2023  
Unmitigated Construction On-Site**

Category	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	5.5414					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0249	0.1694	0.2355	3.9000e-004		9.2100e-003	9.2100e-003		9.2100e-	9.2100e-	0.0000	33.1923	33.1923	1.9900e-003	0.0000	33.2419
<b>Total</b>	<b>5.5663</b>	<b>0.1694</b>	<b>0.2355</b>	<b>3.9000e-004</b>		<b>9.2100e-003</b>	<b>9.2100e-003</b>		<b>9.2100e-003</b>	<b>9.2100e-003</b>	<b>0.0000</b>	<b>33.1923</b>	<b>33.1923</b>	<b>1.9900e-003</b>	<b>0.0000</b>	<b>33.2419</b>

**Unmitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0520	0.0345	0.3766	1.3100e-003	0.1490	9.5000e-004	0.1500	0.0397	8.8000e-	0.0405	0.0000	118.5182	118.5182	2.4500e-003	0.0000	118.5794
<b>Total</b>	<b>0.0520</b>	<b>0.0345</b>	<b>0.3766</b>	<b>1.3100e-003</b>	<b>0.1490</b>	<b>9.5000e-004</b>	<b>0.1500</b>	<b>0.0397</b>	<b>8.8000e-004</b>	<b>0.0405</b>	<b>0.0000</b>	<b>118.5182</b>	<b>118.5182</b>	<b>2.4500e-003</b>	<b>0.0000</b>	<b>118.5794</b>



**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	5.5414					0.0000	0.0000		0.0000	0.0000	0	0	0	0	0	0
Off-Road	3.8600e-	0.0167	0.2382	3.9000e-004		5.2000e-004	5.2000e-004		5.2000e-	5.2000e-	0	33.1923	33.1923	1.99E-03	0	33.2419
<b>Total</b>	<b>5.5452</b>	<b>0.0167</b>	<b>0.2382</b>	<b>3.9000e-004</b>		<b>5.2000e-004</b>	<b>5.2000e-004</b>		<b>5.2000e-004</b>	<b>5.2000e-004</b>	<b>0</b>	<b>33.1923</b>	<b>33.1923</b>	<b>1.99E-03</b>	<b>0</b>	<b>33.2419</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0	0	0	0	0	0
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0	0	0	0	0	0
Worker	0.0520	0.0345	0.3766	1.3100e-003	0.1490	9.5000e-004	0.1500	0.0397	8.8000e-	0.0405	0	118.5182	118.5182	2.45E-03	0	118.5794
<b>Total</b>	<b>0.0520</b>	<b>0.0345</b>	<b>0.3766</b>	<b>1.3100e-003</b>	<b>0.1490</b>	<b>9.5000e-004</b>	<b>0.1500</b>	<b>0.0397</b>	<b>8.8000e-004</b>	<b>0.0405</b>	<b>0.0000</b>	<b>118.5182</b>	<b>118.5182</b>	<b>2.4500e-003</b>	<b>0.0000</b>	<b>118.5794</b>

**3.7 Architectural Coating - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.8755					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.9500e-	0.0536	0.0797	1.3000e-004		2.6800e-003	2.6800e-003		2.6800e-	2.6800e-	0.0000	11.2343	11.2343	6.3000e-004	0.0000	11.2501
<b>Total</b>	<b>1.8835</b>	<b>0.0536</b>	<b>0.0797</b>	<b>1.3000e-004</b>		<b>2.6800e-003</b>	<b>2.6800e-003</b>		<b>2.6800e-003</b>	<b>2.6800e-003</b>	<b>0.0000</b>	<b>11.2343</b>	<b>11.2343</b>	<b>6.3000e-004</b>	<b>0.0000</b>	<b>11.2501</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0165	0.0105	0.1177	4.3000e-004	0.0504	3.2000e-004	0.0508	0.0134	2.9000e-	0.0137	0.0000	38.5239	38.5239	7.4000e-004	0.0000	38.5425
<b>Total</b>	<b>0.0165</b>	<b>0.0105</b>	<b>0.1177</b>	<b>4.3000e-004</b>	<b>0.0504</b>	<b>3.2000e-004</b>	<b>0.0508</b>	<b>0.0134</b>	<b>2.9000e-004</b>	<b>0.0137</b>	<b>0.0000</b>	<b>38.5239</b>	<b>38.5239</b>	<b>7.4000e-004</b>	<b>0.0000</b>	<b>38.5425</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.8755					0.0000	0.0000		0.0000	0.0000	0	0	0	0	0	0
Off-Road	1.3100e-	5.6700e-003	0.0806	1.3000e-004		1.7000e-004	1.7000e-004		1.7000e-	1.7000e-	0	11.2343	11.2343	6.30E-04	0	11.2501

<b>Total</b>	<b>1.8768</b>	<b>5.67E-03</b>	<b>0.0806</b>	<b>1.30E-04</b>		<b>1.70E-04</b>	<b>1.70E-04</b>		<b>1.70E-04</b>	<b>1.70E-04</b>	<b>0</b>	<b>11.2343</b>	<b>11.2343</b>	<b>6.30E-04</b>	<b>0</b>	<b>11.2501</b>
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**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Worker	0.0165	0.0105	0.1177	4.30E-04	0.0504	3.20E-04	0.0508	0.0134	2.90E-04	0.0137	0	38.5239	38.5239	7.40E-04	0	38.5425
<b>Total</b>	<b>0.0165</b>	<b>0.0105</b>	<b>0.1177</b>	<b>4.30E-04</b>	<b>0.0504</b>	<b>3.20E-04</b>	<b>0.0508</b>	<b>0.0134</b>	<b>2.90E-04</b>	<b>0.0137</b>	<b>0</b>	<b>38.5239</b>	<b>38.5239</b>	<b>7.40E-04</b>	<b>0</b>	<b>38.5425</b>

Station East - Phase 1 Construction - Alameda County, Summer

**Station East - Phase 1 Construction  
Alameda County, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	1,124.00	Space	5.12	449,600.00	0
Parking Lot	214.00	Space	0.98	85,600.00	0
Apartments Mid Rise	683.00	Dwelling Unit	14.57	1,278,379.00	1953
Regional Shopping Center	30.77	1000sqft	0.34	30,770.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	63
<b>Climate Zone</b>	5			<b>Operational Year</b>	2022
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity</b>	641.35	<b>CH4 Intensity</b>	0.029	<b>N2O Intensity</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - Construction analysis only  
 Land Use - lot acreage scaled by SF; land use data provided by applicant  
 Construction Phase - schedule provided by applicant  
 Trips and VMT - total hauling trips for demolition provided by applicant  
 Demolition -  
 Grading - provided by applicant; assumed entire site graded  
 Architectural Coating -  
 Woodstoves -  
 Energy Use -  
 Off-road Equipment - defaults from RCEM for utilities phase  
 Construction Off-road Equipment Mitigation - assumed Tier 4 final mitigation; and implementation of BAAQMD's Construction Measures  
 Area Mitigation - offmodeled

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	20.00	107.00
tblConstructionPhase	NumDays	35.00	107.00
tblConstructionPhase	NumDays	20.00	28.00
tblConstructionPhase	NumDays	370.00	640.00
tblConstructionPhase	NumDays	20.00	435.00
tblGrading	AcresOfGrading	267.50	26.50
tblGrading	MaterialExported	0.00	80,000.00
tblLandUse	LandUseSquareFeet	683,000.00	1,278,379.00
tblLandUse	LotAcreage	10.12	5.12

tblLandUse	LotAcreage	1.93	0.98
tblLandUse	LotAcreage	17.97	14.57
tblLandUse	LotAcreage	0.71	0.34
tblOffRoadEquipment	OffRoadEquipmentType		Air Compressors
tblOffRoadEquipment	OffRoadEquipmentType		Generator Sets
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Scrapers

## 2.0 Emissions Summary

### 2.1 Overall Construction (Maximum Daily Emission) Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	8.2306	103.1676	57.9647	0.1791	8.7632	3.6167	12.3799	3.9518	3.3441	7.2959	0.0000	18,055.76	18,055.769	3.3868	0.0000	18,140.43
2022	47.7361	46.7739	45.6764	0.1433	8.2799	2.1069	9.2473	2.2217	1.9720	3.1364	0.0000	14,405.77	14,405.776	2.2115	0.0000	14,431.29
2023	47.2731	30.0575	40.0621	0.1393	8.2799	0.8282	9.1081	2.2217	0.7829	3.0046	0.0000	14,010.44	14,010.440	0.9514	0.0000	14,034.22
2024	46.9847	28.8012	38.4307	0.1364	8.2799	0.7308	9.0108	2.2218	0.6904	2.9122	0.0000	13,719.97	13,719.974	0.9312	0.0000	13,743.25
<b>Maximum</b>	<b>47.7361</b>	<b>103.1676</b>	<b>57.9647</b>	<b>0.1791</b>	<b>8.7632</b>	<b>3.6167</b>	<b>12.3799</b>	<b>3.9518</b>	<b>3.3441</b>	<b>7.2959</b>	<b>0.0000</b>	<b>18,055.76</b>	<b>18,055.769</b>	<b>3.3868</b>	<b>0.0000</b>	<b>18,140.43</b>
												<b>97</b>	<b>7</b>			<b>83</b>

### Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	2.0982	30.6304	61.8002	0.1791	5.0208	0.2432	5.2640	2.0724	0.2397	2.3120	0.0000	18,055.76	18,055.769	3.3868	0.0000	18,140.43
2022	46.1828	20.6413	51.2992	0.1433	8.2799	0.1355	8.4013	2.2217	0.1353	2.3382	0.0000	14,405.77	14,405.776	2.2115	0.0000	14,431.29
2023	45.8662	16.7331	41.2997	0.1393	8.2799	0.1024	8.3823	2.2217	0.0984	2.3201	0.0000	14,010.44	14,010.440	0.9514	0.0000	14,034.22
2024	45.6899	16.5021	39.7464	0.1364	8.2799	0.1014	8.3813	2.2218	0.0974	2.3191	0.0000	13,719.97	13,719.974	0.9312	0.0000	13,743.25
<b>Maximum</b>	<b>46.1828</b>	<b>30.6304</b>	<b>61.8002</b>	<b>0.1791</b>	<b>8.2799</b>	<b>0.2432</b>	<b>8.4013</b>	<b>2.2218</b>	<b>0.2397</b>	<b>2.3382</b>	<b>0.0000</b>	<b>18,055.76</b>	<b>18,055.769</b>	<b>3.3868</b>	<b>0.0000</b>	<b>18,140.43</b>
												<b>97</b>	<b>7</b>			<b>83</b>

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>6.91</b>	<b>59.53</b>	<b>-6.59</b>	<b>0.00</b>	<b>11.14</b>	<b>92.00</b>	<b>23.44</b>	<b>17.70</b>	<b>91.59</b>	<b>43.18</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

## 3.0 Construction Detail

### Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Demolition	Demolition	4/15/2021	9/12/2021	5	107	
2	Grading	Grading	4/15/2021	9/12/2021	5	107	
3	Trenching	Trenching	9/13/2021	3/11/2022	5	130	
4	Paving	Paving	2/1/2022	3/10/2022	5	28	
5	Building Construction	Building Construction	3/12/2022	8/24/2024	5	640	
6	Architectural Coating	Architectural Coating	9/1/2022	5/1/2024	5	435	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 26.5**

**Acres of Paving: 6.1**

**Residential Indoor: 2,588,717; Residential Outdoor: 862,906; Non-Residential Indoor: 46,155; Non-Residential Outdoor: 15,385; Striped**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Trenching	Rubber Tired Dozers	0	8.00	247	0.40
Trenching	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Trenching	Air Compressors	1	8.00	78	0.48
Trenching	Generator Sets	1	8.00	84	0.74
Trenching	Plate Compactors	1	8.00	8	0.43
Trenching	Graders	1	8.00	187	0.41

Trenching	Pumps	1	8.00	84	0.74
Trenching	Forklifts	1	8.00	89	0.20
Trenching	Scrapers	2	8.00	367	0.48

### Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
Demolition	6	15.00	0.00	215.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	10,000.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	10	25.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	726.00	166.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	145.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction

- Use Cleaner Engines for Construction Equipment
- Water Exposed Area
- Reduce Vehicle Speed on Unpaved Roads

### 3.2 Demolition - 2021

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4350	0.0000	0.4350	0.0659	0.0000	0.0659			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.944	3,747.9449	1.0549		3,774.317
<b>Total</b>	<b>3.1651</b>	<b>31.4407</b>	<b>21.5650</b>	<b>0.0388</b>	<b>0.4350</b>	<b>1.5513</b>	<b>1.9863</b>	<b>0.0659</b>	<b>1.4411</b>	<b>1.5070</b>		<b>3,747.944</b>	<b>3,747.9449</b>	<b>1.0549</b>		<b>3,774.317</b>
												<b>9</b>				<b>4</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0159	0.5316	0.0970	1.5900e-	0.0352	1.6400e-	0.0368	9.6500e-	1.5700e-	0.0112		168.7703	168.7703	8.0500e-		168.9714
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0507	0.0301	0.3907	1.2100e-	0.1232	8.0000e-	0.1240	0.0327	7.3000e-	0.0334		120.9566	120.9566	2.8700e-		121.0285
<b>Total</b>	<b>0.0666</b>	<b>0.5617</b>	<b>0.4878</b>	<b>2.8000e-</b>	<b>0.1584</b>	<b>2.4400e-</b>	<b>0.1608</b>	<b>0.0423</b>	<b>2.3000e-</b>	<b>0.0446</b>		<b>289.7269</b>	<b>289.7269</b>	<b>0.0109</b>		<b>289.9999</b>
				<b>003</b>		<b>003</b>			<b>003</b>							

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1957	0.0000	0.1957	0.0296	0.0000	0.0296			0.0000			0.0000
Off-Road	0.4623	2.0032	23.2798	0.0388		0.0616	0.0616		0.0616	0.0616	0.0000	3,747.944	3,747.9449	1.0549		3,774.317
<b>Total</b>	<b>0.4623</b>	<b>2.0032</b>	<b>23.2798</b>	<b>0.0388</b>	<b>0.1957</b>	<b>0.0616</b>	<b>0.2574</b>	<b>0.0296</b>	<b>0.0616</b>	<b>0.0913</b>	<b>0.0000</b>	<b>3,747.944</b>	<b>3,747.9449</b>	<b>1.0549</b>		<b>3,774.317</b>
												<b>9</b>				<b>4</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0159	0.5316	0.0970	1.5900e-	0.0352	1.6400e-	0.0368	9.6500e-	1.5700e-	0.0112		168.7703	168.7703	8.0500e-		168.9714
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0507	0.0301	0.3907	1.2100e-	0.1232	8.0000e-	0.1240	0.0327	7.3000e-	0.0334		120.9566	120.9566	2.8700e-		121.0285
<b>Total</b>	<b>0.0666</b>	<b>0.5617</b>	<b>0.4878</b>	<b>2.8000e-</b>	<b>0.1584</b>	<b>2.4400e-</b>	<b>0.1608</b>	<b>0.0423</b>	<b>2.3000e-</b>	<b>0.0446</b>		<b>289.7269</b>	<b>289.7269</b>	<b>0.0109</b>		<b>289.9999</b>
				<b>003</b>		<b>003</b>			<b>003</b>							

**3.3 Grading - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3693	0.0000	6.3693	3.3514	0.0000	3.3514			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.043	6,007.0434	1.9428		6,055.613
<b>Total</b>	<b>4.1912</b>	<b>46.3998</b>	<b>30.8785</b>	<b>0.0620</b>	<b>6.3693</b>	<b>1.9853</b>	<b>8.3546</b>	<b>3.3514</b>	<b>1.8265</b>	<b>5.1779</b>		<b>6,007.043</b>	<b>6,007.0434</b>	<b>1.9428</b>		<b>6,055.613</b>
												<b>4</b>				<b>4</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7402	24.7252	4.5125	0.0738	1.6362	0.0765	1.7127	0.4487	0.0732	0.5219		7,849.778	7,849.7789	0.3743		7,859.136
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0676	0.0402	0.5210	1.6200e-	0.1643	1.0600e-	0.1654	0.0436	9.8000e-	0.0446		161.2755	161.2755	3.8300e-		161.3713
<b>Total</b>	<b>0.8078</b>	<b>24.7654</b>	<b>5.0335</b>	<b>0.0755</b>	<b>1.8005</b>	<b>0.0776</b>	<b>1.8781</b>	<b>0.4923</b>	<b>0.0742</b>	<b>0.5664</b>		<b>8,011.054</b>	<b>8,011.0544</b>	<b>0.3781</b>		<b>8,020.507</b>
												<b>4</b>				<b>7</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.8662	0.0000	2.8662	1.5081	0.0000	1.5081			0.0000			0.0000



Off-Road	0.7616	3.3000	32.9991	0.0620		0.1015	0.1015		0.1015	0.1015	0.0000	6,007.043	6,007.0434	1.9428		6,055.613
<b>Total</b>	<b>0.7616</b>	<b>3.3000</b>	<b>32.9991</b>	<b>0.0620</b>	<b>2.8662</b>	<b>0.1015</b>	<b>2.9677</b>	<b>1.5081</b>	<b>0.1015</b>	<b>1.6097</b>	<b>0.0000</b>	<b>6,007.043</b>	<b>6,007.0434</b>	<b>1.9428</b>		<b>6,055.613</b>
												<b>4</b>				<b>4</b>

### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7402	24.7252	4.5125	0.0738	1.6362	0.0765	1.7127	0.4487	0.0732	0.5219		7,849.778	7,849.7789	0.3743		7,859.136
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0676	0.0402	0.5210	1.6200e-	0.1643	1.0600e-	0.1654	0.0436	9.8000e-	0.0446		161.2755	161.2755	3.8300e-		161.3713
<b>Total</b>	<b>0.8078</b>	<b>24.7654</b>	<b>5.0335</b>	<b>0.0755</b>	<b>1.8005</b>	<b>0.0776</b>	<b>1.8781</b>	<b>0.4923</b>	<b>0.0742</b>	<b>0.5664</b>		<b>8,011.054</b>	<b>8,011.0544</b>	<b>0.3781</b>		<b>8,020.507</b>
												<b>4</b>				<b>7</b>

### 3.4 Trenching - 2021

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.8856	40.9641	31.5241	0.0623		1.8083	1.8083		1.7021	1.7021		5,983.151	5,983.1518	1.4947		6,020.518
<b>Total</b>	<b>3.8856</b>	<b>40.9641</b>	<b>31.5241</b>	<b>0.0623</b>		<b>1.8083</b>	<b>1.8083</b>		<b>1.7021</b>	<b>1.7021</b>		<b>5,983.151</b>	<b>5,983.1518</b>	<b>1.4947</b>		<b>6,020.518</b>
												<b>8</b>				<b>3</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0845	0.0502	0.6512	2.0200e-	0.2054	1.3300e-	0.2067	0.0545	1.2200e-	0.0557		201.5944	201.5944	4.7900e-		201.7141
<b>Total</b>	<b>0.0845</b>	<b>0.0502</b>	<b>0.6512</b>	<b>2.0200e-</b>	<b>0.2054</b>	<b>1.3300e-</b>	<b>0.2067</b>	<b>0.0545</b>	<b>1.2200e-</b>	<b>0.0557</b>		<b>201.5944</b>	<b>201.5944</b>	<b>4.7900e-</b>		<b>201.7141</b>
				<b>003</b>		<b>003</b>			<b>003</b>					<b>003</b>		

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7199	3.1197	33.0471	0.0623		0.0960	0.0960		0.0960	0.0960	0.0000	5,983.151	5,983.1518	1.4947		6,020.518
<b>Total</b>	<b>0.7199</b>	<b>3.1197</b>	<b>33.0471</b>	<b>0.0623</b>		<b>0.0960</b>	<b>0.0960</b>		<b>0.0960</b>	<b>0.0960</b>	<b>0.0000</b>	<b>5,983.151</b>	<b>5,983.1518</b>	<b>1.4947</b>		<b>6,020.518</b>
												<b>8</b>				<b>3</b>

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
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Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0845	0.0502	0.6512	2.0200e-003	0.2054	1.3300e-003	0.2067	0.0545	1.2200e-003	0.0557	201.5944	201.5944	4.7900e-003	201.7141		
<b>Total</b>	<b>0.0845</b>	<b>0.0502</b>	<b>0.6512</b>	<b>2.0200e-003</b>	<b>0.2054</b>	<b>1.3300e-003</b>	<b>0.2067</b>	<b>0.0545</b>	<b>1.2200e-003</b>	<b>0.0557</b>		<b>201.5944</b>	<b>201.5944</b>	<b>4.7900e-003</b>		<b>201.7141</b>

**3.4 Trenching - 2022**  
**Unmitigated Construction On-Site**

Category	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4912	35.5771	30.1394	0.0624		1.5369	1.5369		1.4476	1.4476		5,988.188	5,988.1881	1.4906		6,025.452
<b>Total</b>	<b>3.4912</b>	<b>35.5771</b>	<b>30.1394</b>	<b>0.0624</b>		<b>1.5369</b>	<b>1.5369</b>		<b>1.4476</b>	<b>1.4476</b>		<b>5,988.188</b>	<b>5,988.1881</b>	<b>1.4906</b>		<b>6,025.452</b>
												<b>1</b>				<b>7</b>

**Unmitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0784	0.0450	0.5978	1.9500e-003	0.2054	1.2900e-003	0.2067	0.0545	1.1900e-003	0.0557		194.2427	194.2427	4.2900e-003		194.3500
<b>Total</b>	<b>0.0784</b>	<b>0.0450</b>	<b>0.5978</b>	<b>1.9500e-003</b>	<b>0.2054</b>	<b>1.2900e-003</b>	<b>0.2067</b>	<b>0.0545</b>	<b>1.1900e-003</b>	<b>0.0557</b>		<b>194.2427</b>	<b>194.2427</b>	<b>4.2900e-003</b>		<b>194.3500</b>

**Mitigated Construction On-Site**

Category	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7199	3.1197	33.0471	0.0624		0.0960	0.0960		0.0960	0.0960	0.0000	5,988.188	5,988.1881	1.4906		6,025.452
<b>Total</b>	<b>0.7199</b>	<b>3.1197</b>	<b>33.0471</b>	<b>0.0624</b>		<b>0.0960</b>	<b>0.0960</b>		<b>0.0960</b>	<b>0.0960</b>	<b>0.0000</b>	<b>5,988.188</b>	<b>5,988.1881</b>	<b>1.4906</b>		<b>6,025.452</b>
												<b>1</b>				<b>6</b>

**Mitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0784	0.0450	0.5978	1.9500e-003	0.2054	1.2900e-003	0.2067	0.0545	1.1900e-003	0.0557		194.2427	194.2427	4.2900e-003		194.3500
<b>Total</b>	<b>0.0784</b>	<b>0.0450</b>	<b>0.5978</b>	<b>1.9500e-003</b>	<b>0.2054</b>	<b>1.2900e-003</b>	<b>0.2067</b>	<b>0.0545</b>	<b>1.1900e-003</b>	<b>0.0557</b>		<b>194.2427</b>	<b>194.2427</b>	<b>4.2900e-003</b>		<b>194.3500</b>

**3.5 Paving - 2022**  
**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.660	2,207.6603	0.7140		2,225.510
Paving	0.0917					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.1945</b>	<b>11.1249</b>	<b>14.5805</b>	<b>0.0228</b>		<b>0.5679</b>	<b>0.5679</b>		<b>0.5225</b>	<b>0.5225</b>		<b>2,207.660</b> 3	<b>2,207.6603</b>	<b>0.7140</b>		<b>2,225.510</b> 4

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0470	0.0270	0.3587	1.1700e-	0.1232	7.8000e-	0.1240	0.0327	7.2000e-	0.0334		116.5456	116.5456	2.5800e-		116.6100
<b>Total</b>	<b>0.0470</b>	<b>0.0270</b>	<b>0.3587</b>	<b>1.1700e-</b> <b>003</b>	<b>0.1232</b>	<b>7.8000e-</b> <b>004</b>	<b>0.1240</b>	<b>0.0327</b>	<b>7.2000e-</b> <b>004</b>	<b>0.0334</b>		<b>116.5456</b>	<b>116.5456</b>	<b>2.5800e-</b> <b>003</b>		<b>116.6100</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.660	2,207.6603	0.7140		2,225.510
Paving	0.0917					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.3722</b>	<b>1.2154</b>	<b>17.2957</b>	<b>0.0228</b>		<b>0.0374</b>	<b>0.0374</b>		<b>0.0374</b>	<b>0.0374</b>	<b>0.0000</b>	<b>2,207.660</b> 3	<b>2,207.6603</b>	<b>0.7140</b>		<b>2,225.510</b> 4

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0470	0.0270	0.3587	1.1700e-	0.1232	7.8000e-	0.1240	0.0327	7.2000e-	0.0334		116.5456	116.5456	2.5800e-		116.6100
<b>Total</b>	<b>0.0470</b>	<b>0.0270</b>	<b>0.3587</b>	<b>1.1700e-</b> <b>003</b>	<b>0.1232</b>	<b>7.8000e-</b> <b>004</b>	<b>0.1240</b>	<b>0.0327</b>	<b>7.2000e-</b> <b>004</b>	<b>0.0334</b>		<b>116.5456</b>	<b>116.5456</b>	<b>2.5800e-</b> <b>003</b>		<b>116.6100</b>

**3.6 Building Construction - 2022**  
**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.333	2,554.3336	0.6120		2,569.632
<b>Total</b>	<b>1.7062</b>	<b>15.6156</b>	<b>16.3634</b>	<b>0.0269</b>		<b>0.8090</b>	<b>0.8090</b>		<b>0.7612</b>	<b>0.7612</b>		<b>2,554.333</b>	<b>2,554.3336</b>	<b>0.6120</b>		<b>2,569.632</b>
												<b>6</b>				<b>2</b>

### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4692	16.7114	3.2736	0.0455	1.1248	0.0316	1.1564	0.3239	0.0302	0.3541		4,802.580	4,802.5800	0.2407		4,808.598
Worker	2.2758	1.3057	17.3606	0.0566	5.9639	0.0376	6.0015	1.5819	0.0346	1.6165		5,640.807	5,640.8075	0.1247		5,643.924
<b>Total</b>	<b>2.7450</b>	<b>18.0171</b>	<b>20.6342</b>	<b>0.1021</b>	<b>7.0887</b>	<b>0.0692</b>	<b>7.1579</b>	<b>1.9058</b>	<b>0.0648</b>	<b>1.9706</b>		<b>10,443.38</b>	<b>10,443.387</b>	<b>0.3654</b>		<b>10,452.52</b>
												<b>75</b>	<b>5</b>			<b>28</b>

### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,554.333	2,554.3336	0.6120		2,569.632
<b>Total</b>	<b>0.3278</b>	<b>2.2347</b>	<b>17.4603</b>	<b>0.0269</b>		<b>0.0408</b>	<b>0.0408</b>		<b>0.0408</b>	<b>0.0408</b>	<b>0.0000</b>	<b>2,554.333</b>	<b>2,554.3336</b>	<b>0.6120</b>		<b>2,569.632</b>
												<b>6</b>				<b>2</b>

### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4692	16.7114	3.2736	0.0455	1.1248	0.0316	1.1564	0.3239	0.0302	0.3541		4,802.580	4,802.5800	0.2407		4,808.598
Worker	2.2758	1.3057	17.3606	0.0566	5.9639	0.0376	6.0015	1.5819	0.0346	1.6165		5,640.807	5,640.8075	0.1247		5,643.924
<b>Total</b>	<b>2.7450</b>	<b>18.0171</b>	<b>20.6342</b>	<b>0.1021</b>	<b>7.0887</b>	<b>0.0692</b>	<b>7.1579</b>	<b>1.9058</b>	<b>0.0648</b>	<b>1.9706</b>		<b>10,443.38</b>	<b>10,443.387</b>	<b>0.3654</b>		<b>10,452.52</b>
												<b>75</b>	<b>5</b>			<b>28</b>

## 3.6 Building Construction - 2023

### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.209	2,555.2099	0.6079		2,570.406
<b>Total</b>	<b>1.5728</b>	<b>14.3849</b>	<b>16.2440</b>	<b>0.0269</b>		<b>0.6997</b>	<b>0.6997</b>		<b>0.6584</b>	<b>0.6584</b>		<b>2,555.209</b>	<b>2,555.2099</b>	<b>0.6079</b>		<b>2,570.406</b>
												<b>9</b>				<b>1</b>

### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
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Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.3437	12.9638	2.8819	0.0441	1.1249	0.0136	1.1385	0.3239	0.0130	0.3369	4,665.370	4,665.3708	0.1927		4,670.188	
Worker	2.1166	1.1718	15.9413	0.0544	5.9639	0.0367	6.0006	1.5819	0.0338	1.6157	5,424.921	5,424.9218	0.1117		5,427.714	
<b>Total</b>	<b>2.4602</b>	<b>14.1356</b>	<b>18.8232</b>	<b>0.0985</b>	<b>7.0888</b>	<b>0.0503</b>	<b>7.1391</b>	<b>1.9058</b>	<b>0.0468</b>	<b>1.9526</b>	<b>10,090.29</b>	<b>10,090.292</b>	<b>0.3044</b>		<b>10,097.90</b>	
											<b>26</b>	<b>6</b>			<b>29</b>	

**Mitigated Construction On-Site**

Category	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,555.209	2,555.2099	0.6079		2,570.406
<b>Total</b>	<b>0.3278</b>	<b>2.2347</b>	<b>17.4603</b>	<b>0.0269</b>		<b>0.0408</b>	<b>0.0408</b>		<b>0.0408</b>	<b>0.0408</b>	<b>0.0000</b>	<b>2,555.209</b>	<b>2,555.2099</b>	<b>0.6079</b>		<b>2,570.406</b>
												<b>9</b>				<b>1</b>

**Mitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3437	12.9638	2.8819	0.0441	1.1249	0.0136	1.1385	0.3239	0.0130	0.3369	4,665.370	4,665.3708	0.1927		4,670.188	
Worker	2.1166	1.1718	15.9413	0.0544	5.9639	0.0367	6.0006	1.5819	0.0338	1.6157	5,424.921	5,424.9218	0.1117		5,427.714	
<b>Total</b>	<b>2.4602</b>	<b>14.1356</b>	<b>18.8232</b>	<b>0.0985</b>	<b>7.0888</b>	<b>0.0503</b>	<b>7.1391</b>	<b>1.9058</b>	<b>0.0468</b>	<b>1.9526</b>	<b>10,090.29</b>	<b>10,090.292</b>	<b>0.3044</b>		<b>10,097.90</b>	
											<b>26</b>	<b>6</b>			<b>29</b>	

**3.6 Building Construction - 2024**

**Unmitigated Construction On-Site**

Category	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.698	2,555.6989	0.6044		2,570.807
<b>Total</b>	<b>1.4716</b>	<b>13.4438</b>	<b>16.1668</b>	<b>0.0270</b>		<b>0.6133</b>	<b>0.6133</b>		<b>0.5769</b>	<b>0.5769</b>		<b>2,555.698</b>	<b>2,555.6989</b>	<b>0.6044</b>		<b>2,570.807</b>
												<b>9</b>				<b>7</b>

**Unmitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3337	12.8713	2.7617	0.0438	1.1249	0.0135	1.1384	0.3239	0.0129	0.3368	4,632.584	4,632.5841	0.1904		4,637.343	
Worker	1.9779	1.0564	14.7468	0.0522	5.9639	0.0360	5.9999	1.5819	0.0331	1.6150	5,209.731	5,209.7319	0.1006		5,212.246	
<b>Total</b>	<b>2.3116</b>	<b>13.9276</b>	<b>17.5085</b>	<b>0.0961</b>	<b>7.0888</b>	<b>0.0494</b>	<b>7.1382</b>	<b>1.9058</b>	<b>0.0460</b>	<b>1.9518</b>	<b>9,842.316</b>	<b>9,842.3161</b>	<b>0.2909</b>		<b>9,849.589</b>	
											<b>1</b>					<b>7</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,555.698	2,555.6989	0.6044		2,570.807
<b>Total</b>	<b>0.3278</b>	<b>2.2347</b>	<b>17.4603</b>	<b>0.0270</b>		<b>0.0408</b>	<b>0.0408</b>		<b>0.0408</b>	<b>0.0408</b>	<b>0.0000</b>	<b>2,555.698</b>	<b>2,555.6989</b>	<b>0.6044</b>		<b>2,570.807</b>
												<b>9</b>				<b>7</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3337	12.8713	2.7617	0.0438	1.1249	0.0135	1.1384	0.3239	0.0129	0.3368		4,632.584	4,632.5841	0.1904		4,637.343
Worker	1.9779	1.0564	14.7468	0.0522	5.9639	0.0360	5.9999	1.5819	0.0331	1.6150		5,209.731	5,209.7319	0.1006		5,212.246
<b>Total</b>	<b>2.3116</b>	<b>13.9276</b>	<b>17.5085</b>	<b>0.0961</b>	<b>7.0888</b>	<b>0.0494</b>	<b>7.1382</b>	<b>1.9058</b>	<b>0.0460</b>	<b>1.9518</b>		<b>9,842.316</b>	<b>9,842.3161</b>	<b>0.2909</b>		<b>9,849.589</b>
												<b>1</b>				<b>7</b>

**3.7 Architectural Coating - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	42.6258					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
<b>Total</b>	<b>42.8303</b>	<b>1.4085</b>	<b>1.8136</b>	<b>2.9700e-</b>		<b>0.0817</b>	<b>0.0817</b>		<b>0.0817</b>	<b>0.0817</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.9062</b>
				<b>003</b>												

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4545	0.2608	3.4673	0.0113	1.1911	7.5100e-	1.1987	0.3160	6.9100e-	0.3229		1,126.607	1,126.6076	0.0249		1,127.230
<b>Total</b>	<b>0.4545</b>	<b>0.2608</b>	<b>3.4673</b>	<b>0.0113</b>	<b>1.1911</b>	<b>7.5100e-</b>	<b>1.1987</b>	<b>0.3160</b>	<b>6.9100e-</b>	<b>0.3229</b>		<b>1,126.607</b>	<b>1,126.6076</b>	<b>0.0249</b>		<b>1,127.230</b>
						<b>003</b>			<b>003</b>			<b>6</b>				<b>1</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	42.6258					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-		3.9600e-	3.9600e-		3.9600e-	3.9600e-		281.4481	281.4481	0.0183		281.9062

<b>Total</b>	<b>42.6555</b>	<b>0.1288</b>	<b>1.8324</b>	<b>2.9700e-003</b>		<b>3.9600e-003</b>	<b>3.9600e-003</b>		<b>3.9600e-003</b>	<b>3.9600e-003</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.9062</b>
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**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4545	0.2608	3.4673	0.0113	1.1911	7.5100e-	1.1987	0.3160	6.9100e-	0.3229		1,126.607	1,126.6076	0.0249		1,127.230
<b>Total</b>	<b>0.4545</b>	<b>0.2608</b>	<b>3.4673</b>	<b>0.0113</b>	<b>1.1911</b>	<b>7.5100e-003</b>	<b>1.1987</b>	<b>0.3160</b>	<b>6.9100e-003</b>	<b>0.3229</b>		<b>1,126.6076</b>	<b>1,126.6076</b>	<b>0.0249</b>		<b>1,127.2301</b>

**3.7 Architectural Coating - 2023**  
**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	42.6258					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
<b>Total</b>	<b>42.8174</b>	<b>1.3030</b>	<b>1.8111</b>	<b>2.9700e-003</b>		<b>0.0708</b>	<b>0.0708</b>		<b>0.0708</b>	<b>0.0708</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0168</b>		<b>281.8690</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4227	0.2340	3.1839	0.0109	1.1911	7.3300e-	1.1985	0.3160	6.7500e-	0.3227		1,083.489	1,083.4899	0.0223		1,084.047
<b>Total</b>	<b>0.4227</b>	<b>0.2340</b>	<b>3.1839</b>	<b>0.0109</b>	<b>1.1911</b>	<b>7.3300e-003</b>	<b>1.1985</b>	<b>0.3160</b>	<b>6.7500e-003</b>	<b>0.3227</b>		<b>1,083.4899</b>	<b>1,083.4899</b>	<b>0.0223</b>		<b>1,084.0477</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	42.6258					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-		3.9600e-	3.9600e-		3.9600e-	3.9600e-	0.0000	281.4481	281.4481	0.0168		281.8690
<b>Total</b>	<b>42.6555</b>	<b>0.1288</b>	<b>1.8324</b>	<b>2.9700e-003</b>		<b>3.9600e-003</b>	<b>3.9600e-003</b>		<b>3.9600e-003</b>	<b>3.9600e-003</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0168</b>		<b>281.8690</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4227	0.2340	3.1839	0.0109	1.1911	7.3300e-	1.1985	0.3160	6.7500e-	0.3227		1,083.489	1,083.4899	0.0223		1,084.047
<b>Total</b>	<b>0.4227</b>	<b>0.2340</b>	<b>3.1839</b>	<b>0.0109</b>	<b>1.1911</b>	<b>7.3300e-003</b>	<b>1.1985</b>	<b>0.3160</b>	<b>6.7500e-003</b>	<b>0.3227</b>		<b>1,083.4899</b>	<b>1,083.4899</b>	<b>0.0223</b>		<b>1,084.0477</b>

### 3.7 Architectural Coating - 2024 Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	42.6258					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
<b>Total</b>	<b>42.8065</b>	<b>1.2188</b>	<b>1.8101</b>	<b>2.9700e-003</b>		<b>0.0609</b>	<b>0.0609</b>		<b>0.0609</b>	<b>0.0609</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0159</b>		<b>281.8443</b>

### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3950	0.2110	2.9453	0.0104	1.1911	7.1800e-	1.1983	0.3160	6.6100e-	0.3226		1,040.511	1,040.5112	0.0201		1,041.013
<b>Total</b>	<b>0.3950</b>	<b>0.2110</b>	<b>2.9453</b>	<b>0.0104</b>	<b>1.1911</b>	<b>7.1800e-003</b>	<b>1.1983</b>	<b>0.3160</b>	<b>6.6100e-003</b>	<b>0.3226</b>		<b>1,040.5112</b>	<b>1,040.5112</b>	<b>0.0201</b>		<b>1,041.0134</b>

### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	42.6258					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-		3.9600e-	3.9600e-		3.9600e-	3.9600e-	0.0000	281.4481	281.4481	0.0159		281.8443
<b>Total</b>	<b>42.6555</b>	<b>0.1288</b>	<b>1.8324</b>	<b>2.9700e-003</b>		<b>3.9600e-003</b>	<b>3.9600e-003</b>		<b>3.9600e-003</b>	<b>3.9600e-003</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0159</b>		<b>281.8443</b>

### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3950	0.2110	2.9453	0.0104	1.1911	7.1800e-	1.1983	0.3160	6.6100e-	0.3226		1,040.511	1,040.5112	0.0201		1,041.013



Total	0.3950	0.2110	2.9453	0.0104	1.1911	7.1800e-003	1.1983	0.3160	6.6100e-003	0.3226		1,040.5112	1,040.5112	0.0201		1,041.0134
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Station East - Phase 2 Construction - Alameda County, Annual

**Station East - Phase 2 Construction  
Alameda County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	454.00	Space	1.41	181,600.00	0
Apartments Mid Rise	281.00	Dwelling Unit	4.07	525,951.00	804

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	63
<b>Climate Zone</b>	5			<b>Operational Year</b>	2022
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity</b>	641.35	<b>CH4 Intensity</b>	0.029	<b>N2O Intensity</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

- Project Characteristics - construction analysis only
- Land Use - lot acreage scaled by sf; land use data provided by applicant
- Construction Phase - schedule provided by applicant
- Grading -
- Construction Off-road Equipment Mitigation - Tier 4 final mitigation; BAAQMD basic construction measures
- Off-road Equipment - default equipement from RCEM
- Off-road Equipment -
- Off-road Equipment -
- Off-road Equipment -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	20.00	392.00
tblConstructionPhase	NumDays	230.00	343.00
tblConstructionPhase	NumDays	20.00	27.00
tblConstructionPhase	PhaseEndDate	3/24/2023	9/1/2025
tblConstructionPhase	PhaseEndDate	1/27/2023	12/17/2025
tblConstructionPhase	PhaseEndDate	2/24/2023	9/6/2022
tblConstructionPhase	PhaseEndDate	3/11/2022	9/7/2022
tblConstructionPhase	PhaseStartDate	2/25/2023	3/1/2024
tblConstructionPhase	PhaseStartDate	3/12/2022	8/25/2024
tblConstructionPhase	PhaseStartDate	1/28/2023	8/1/2022
tblLandUse	LandUseSquareFeet	281,000.00	525,951.00
tblLandUse	LotAcreage	4.09	1.41
tblLandUse	LotAcreage	7.39	4.07
tblOffRoadEquipment	OffRoadEquipmentType		Air Compressors
tblOffRoadEquipment	OffRoadEquipmentType		Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Generator Sets
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentType		Pumps

tblOffRoadEquipment	OffRoadEquipmentType	Scrapers
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## 2.0 Emissions Summary

### 2.1 Overall Construction Unmitigated Construction

Year	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
2022	0.2437	2.4308	2.1651	4.4300e-	0.0143	0.1061	0.1204	3.7900e-	0.0998	0.1036	0.0000	386.4941	386.4941	0.0956	0.0000	388.8829
2024	2.2220	0.9979	1.3393	3.5500e-	0.1679	0.0360	0.2039	0.0451	0.0343	0.0793	0.0000	317.9113	317.9113	0.0320	0.0000	318.7111
2025	1.9587	2.3074	2.9848	8.1500e-	0.3648	0.0732	0.4381	0.0982	0.0691	0.1673	0.0000	731.5101	731.5101	0.0819	0.0000	733.5574
<b>Maximum</b>	<b>2.2220</b>	<b>2.4308</b>	<b>2.9848</b>	<b>8.1500e-003</b>	<b>0.3648</b>	<b>0.1061</b>	<b>0.4381</b>	<b>0.0982</b>	<b>0.0998</b>	<b>0.1673</b>	<b>0.0000</b>	<b>731.5101</b>	<b>731.5101</b>	<b>0.0956</b>	<b>0.0000</b>	<b>733.5574</b>

### Mitigated Construction

Year	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
2022	0.0552	0.2197	2.3878	4.4300e-	0.0143	6.7400e-	0.0210	3.7900e-	6.7300e-003	0.0105	0.0000	386.4937	386.4937	0.0956	0.0000	388.8824
2024	2.1530	0.3635	1.4012	3.5500e-	0.1679	3.4700e-	0.1713	0.0451	3.3900e-003	0.0485	0.0000	317.9112	317.9112	0.0320	0.0000	318.7109
2025	1.8160	0.9344	3.1594	8.1500e-	0.3648	8.0200e-	0.3729	0.0982	7.8400e-003	0.1060	0.0000	731.5097	731.5097	0.0819	0.0000	733.5570
<b>Maximum</b>	<b>2.1530</b>	<b>0.9344</b>	<b>3.1594</b>	<b>8.1500e-</b>	<b>0.3648</b>	<b>8.0200e-</b>	<b>0.3729</b>	<b>0.0982</b>	<b>7.8400e-003</b>	<b>0.1060</b>	<b>0.0000</b>	<b>731.5097</b>	<b>731.5097</b>	<b>0.0956</b>	<b>0.0000</b>	<b>733.5570</b>

Percent Reduction	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
	9.05	73.54	-7.08	0.00	0.00	91.54	25.86	0.00	91.16	52.88	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-12-2022	6-11-2022	1.2878	0.1303
2	6-12-2022	9-11-2022	1.3943	0.1453
8	12-12-2023	3-11-2024	0.0815	0.0766
9	3-12-2024	6-11-2024	0.6809	0.6401
10	6-12-2024	9-11-2024	0.8148	0.6946
11	9-12-2024	12-11-2024	1.3559	0.9141
12	12-12-2024	3-11-2025	1.3095	0.9015
13	3-12-2025	6-11-2025	1.3244	0.9159
14	6-12-2025	9-11-2025	1.2495	0.8452
15	9-12-2025	9-30-2025	0.1334	0.0569
		Highest	1.3943	0.9159

### 3.0 Construction Detail

#### Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Trenching	Trenching	3/12/2022	9/7/2022	5	128	
2	Building Construction	Building Construction	8/25/2024	12/17/2025	5	343	
3	Paving	Paving	8/1/2022	9/6/2022	5	27	
4	Architectural Coating	Architectural Coating	3/1/2024	9/1/2025	5	392	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 1.41

Residential Indoor: 1,065,051; Residential Outdoor: 355,017; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area:

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Trenching	Rubber Tired Dozers	0	8.00	247	0.40
Trenching	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Trenching	Air Compressors	1	8.00	78	0.48
Trenching	Forklifts	1	8.00	89	0.20
Trenching	Generator Sets	1	8.00	84	0.74
Trenching	Graders	1	8.00	187	0.41
Trenching	Plate Compactors	1	8.00	8	0.43
Trenching	Pumps	1	8.00	84	0.74
Trenching	Scrapers	2	8.00	367	0.48

#### Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor Vehicle	Hauling
Trenching	10	25.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	56.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	279.00	60.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment  
Water Exposed Area  
Reduce Vehicle Speed on Unpaved Roads

### 3.2 Trenching - 2022

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2234	2.2769	1.9289	3.99E-03		0.0984	0.0984		0.0927	0.0927	0	347.6731	347.6731	0.0865	0	349.8367
<b>Total</b>	<b>0.2234</b>	<b>2.2769</b>	<b>1.9289</b>	<b>3.9900e-003</b>		<b>0.0984</b>	<b>0.0984</b>		<b>0.0927</b>	<b>0.0927</b>	<b>0.0000</b>	<b>347.6731</b>	<b>347.6731</b>	<b>0.0865</b>	<b>0.0000</b>	<b>349.8367</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Worker	4.74E-03	3.26E-03	0.0349	1.20E-04	0.0127	8.00E-05	0.0127	3.37E-03	8.00E-05	3.44E-03	0	10.46	10.46	2.30E-04	0	10.4658
<b>Total</b>	<b>4.7400e-003</b>	<b>3.2600e-003</b>	<b>0.0349</b>	<b>1.2000e-004</b>	<b>0.0127</b>	<b>8.0000e-005</b>	<b>0.0127</b>	<b>3.3700e-003</b>	<b>8.0000e-005</b>	<b>3.4400e-003</b>	<b>0.0000</b>	<b>10.4600</b>	<b>10.4600</b>	<b>2.3000e-004</b>	<b>0.0000</b>	<b>10.4658</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0461	0.1997	2.115	3.99E-03		6.14E-03	6.14E-03		6.14E-03	6.14E-03	0	347.6727	347.6727	0.0865	0	349.8363
<b>Total</b>	<b>0.0461</b>	<b>0.1997</b>	<b>2.1150</b>	<b>3.9900e-003</b>		<b>6.1400e-003</b>	<b>6.1400e-003</b>		<b>6.1400e-003</b>	<b>6.1400e-003</b>	<b>0</b>	<b>347.6727</b>	<b>347.6727</b>	<b>0.0865</b>	<b>0</b>	<b>349.8363</b>

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Worker	4.74E-03	3.26E-03	0.0349	1.20E-04	0.0127	8.00E-05	0.0127	3.37E-03	8.00E-05	3.44E-03	0	10.46	10.46	2.30E-04	0	10.4658
<b>Total</b>	<b>4.7400e-003</b>	<b>3.2600e-003</b>	<b>0.0349</b>	<b>1.2000e-004</b>	<b>0.0127</b>	<b>8.0000e-005</b>	<b>0.0127</b>	<b>3.3700e-003</b>	<b>8.0000e-005</b>	<b>3.4400e-003</b>	<b>0</b>	<b>10.46</b>	<b>10.46</b>	<b>2.30E-04</b>	<b>0</b>	<b>10.4658</b>

### 3.3 Building Construction - 2024 Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0677	0.6184	0.7437	1.24E-03		0.0282	0.0282		0.0265	0.0265	0	106.6506	106.6506	0.0252	0	107.2811
<b>Total</b>	<b>0.0677</b>	<b>0.6184</b>	<b>0.7437</b>	<b>1.24E-03</b>		<b>0.0282</b>	<b>0.0282</b>		<b>0.0265</b>	<b>0.0265</b>	<b>0</b>	<b>106.6506</b>	<b>106.6506</b>	<b>0.0252</b>	<b>0</b>	<b>107.2811</b>

### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor	5.68E-03	0.2155	0.049	7.20E-04	0.0181	2.30E-04	0.0184	5.24E-03	2.20E-04	5.46E-03	0	69.0782	69.0782	2.99E-03	0	69.1531
Worker	0.0332	0.0211	0.2367	8.60E-04	0.1015	6.40E-04	0.1021	0.027	5.90E-04	0.0276	0	77.4947	77.4947	1.50E-03	0	77.5321
<b>Total</b>	<b>0.0388</b>	<b>0.2366</b>	<b>0.2857</b>	<b>1.58E-03</b>	<b>0.1196</b>	<b>8.70E-04</b>	<b>0.1205</b>	<b>0.0322</b>	<b>8.10E-04</b>	<b>0.033</b>	<b>0</b>	<b>146.5729</b>	<b>146.5729</b>	<b>4.49E-03</b>	<b>0</b>	<b>146.6852</b>

### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0151	0.1028	0.8032	1.24E-03		1.88E-03	1.88E-03		1.88E-03	1.88E-03	0	106.6505	106.6505	0.0252	0	107.281
<b>Total</b>	<b>0.0151</b>	<b>0.1028</b>	<b>0.8032</b>	<b>1.2400e-003</b>		<b>1.8800e-003</b>	<b>1.8800e-003</b>		<b>1.8800e-003</b>	<b>1.8800e-003</b>	<b>0</b>	<b>106.6505</b>	<b>106.6505</b>	<b>0.0252</b>	<b>0</b>	<b>107.281</b>

### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor	5.68E-03	0.2155	0.049	7.20E-04	0.0181	2.30E-04	0.0184	5.24E-03	2.20E-04	5.46E-03	0	69.0782	69.0782	2.99E-03	0	69.1531
Worker	0.0332	0.0211	0.2367	8.60E-04	0.1015	6.40E-04	0.1021	0.027	5.90E-04	0.0276	0	77.4947	77.4947	1.50E-03	0	77.5321
<b>Total</b>	<b>0.0388</b>	<b>0.2366</b>	<b>0.2857</b>	<b>1.58E-03</b>	<b>0.1196</b>	<b>8.70E-04</b>	<b>0.1205</b>	<b>0.0322</b>	<b>8.10E-04</b>	<b>0.033</b>	<b>0</b>	<b>146.5729</b>	<b>146.5729</b>	<b>4.49E-03</b>	<b>0</b>	<b>146.6852</b>

**3.3 Building Construction - 2025**  
**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1716	1.565	2.0186	3.38E-03		0.0662	0.0662		0.0623	0.0623	0	291.0589	291.0589	0.0684	0	292.7694
<b>Total</b>	<b>0.1716</b>	<b>1.565</b>	<b>2.0186</b>	<b>3.38E-03</b>		<b>0.0662</b>	<b>0.0662</b>		<b>0.0623</b>	<b>0.0623</b>	<b>0</b>	<b>291.0589</b>	<b>291.0589</b>	<b>0.0684</b>	<b>0</b>	<b>292.7694</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor	0.0151	0.5832	0.129	1.95E-03	0.0495	6.10E-04	0.0501	0.0143	5.80E-04	0.0149	0	187.2266	187.2266	8.05E-03	0	187.4279
Worker	0.0851	0.0523	0.5967	2.24E-03	0.2769	1.71E-03	0.2786	0.0737	1.57E-03	0.0752	0	202.794	202.794	3.70E-03	0	202.8864
<b>Total</b>	<b>0.1002</b>	<b>0.6355</b>	<b>0.7257</b>	<b>4.1900e-003</b>	<b>0.3263</b>	<b>2.3200e-003</b>	<b>0.3286</b>	<b>0.0880</b>	<b>2.1500e-003</b>	<b>0.0901</b>	<b>0.0000</b>	<b>390.0206</b>	<b>390.0206</b>	<b>0.0118</b>	<b>0.0000</b>	<b>390.3143</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0411	0.2805	2.1913	3.38E-03		5.12E-03	5.12E-03		5.12E-03	5.12E-03	0	291.0586	291.0586	0.0684	0	292.769
<b>Total</b>	<b>0.0411</b>	<b>0.2805</b>	<b>2.1913</b>	<b>3.3800e-003</b>		<b>5.1200e-003</b>	<b>5.1200e-003</b>		<b>5.1200e-003</b>	<b>5.1200e-003</b>	<b>0</b>	<b>291.0586</b>	<b>291.0586</b>	<b>0.0684</b>	<b>0</b>	<b>292.769</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor	0.0151	0.5832	0.129	1.95E-03	0.0495	6.10E-04	0.0501	0.0143	5.80E-04	0.0149	0	187.2266	187.2266	8.05E-03	0	187.4279
Worker	0.0851	0.0523	0.5967	2.24E-03	0.2769	1.71E-03	0.2786	0.0737	1.57E-03	0.0752	0	202.794	202.794	3.70E-03	0	202.8864
<b>Total</b>	<b>0.1002</b>	<b>0.6355</b>	<b>0.7257</b>	<b>4.1900e-003</b>	<b>0.3263</b>	<b>2.3200e-003</b>	<b>0.3286</b>	<b>0.0880</b>	<b>2.1500e-003</b>	<b>0.0901</b>	<b>0</b>	<b>390.0206</b>	<b>390.0206</b>	<b>0.0118</b>	<b>0</b>	<b>390.3143</b>

**3.4 Paving - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					



Off-Road	0.0149	0.1502	0.1968	3.10E-04		7.67E-03	7.67E-03		7.05E-03	7.05E-03	0	27.0372	27.0372	8.74E-03	0	27.2558
Paving	0					0	0		0	0	0	0	0	0	0	0
<b>Total</b>	<b>0.0149</b>	<b>0.1502</b>	<b>0.1968</b>	<b>3.1000e-004</b>		<b>7.6700e-003</b>	<b>7.6700e-003</b>		<b>7.0500e-003</b>	<b>7.0500e-003</b>	<b>0.0000</b>	<b>27.0372</b>	<b>27.0372</b>	<b>8.7400e-003</b>	<b>0.0000</b>	<b>27.2558</b>

### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Worker	6.00E-04	4.10E-04	4.42E-03	1.00E-05	1.60E-03	1.00E-05	1.61E-03	4.30E-04	1.00E-05	4.40E-04	0	1.3238	1.3238	3.00E-05	0	1.3246
<b>Total</b>	<b>6.0000e-004</b>	<b>4.1000e-004</b>	<b>4.4200e-003</b>	<b>1.0000e-005</b>	<b>1.6000e-003</b>	<b>1.0000e-005</b>	<b>1.6100e-003</b>	<b>4.3000e-004</b>	<b>1.0000e-005</b>	<b>4.4000e-004</b>	<b>0.0000</b>	<b>1.3238</b>	<b>1.3238</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>1.3246</b>

### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.79E-03	0.0164	0.2335	3.10E-04		5.00E-04	5.00E-04		5.00E-04	5.00E-04	0	27.0372	27.0372	8.74E-03	0	27.2558
Paving	0					0	0		0	0	0	0	0	0	0	0
<b>Total</b>	<b>3.7900e-003</b>	<b>0.0164</b>	<b>0.2335</b>	<b>3.1000e-004</b>		<b>5.0000e-004</b>	<b>5.0000e-004</b>		<b>5.0000e-004</b>	<b>5.0000e-004</b>	<b>0.0000</b>	<b>27.0372</b>	<b>27.0372</b>	<b>8.7400e-003</b>	<b>0.0000</b>	<b>27.2558</b>

### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Worker	6.00E-04	4.10E-04	4.42E-03	1.00E-05	1.60E-03	1.00E-05	1.61E-03	4.30E-04	1.00E-05	4.40E-04	0	1.3238	1.3238	3.00E-05	0	1.3246
<b>Total</b>	<b>6.0000e-004</b>	<b>4.1000e-004</b>	<b>4.4200e-003</b>	<b>1.0000e-005</b>	<b>1.6000e-003</b>	<b>1.0000e-005</b>	<b>1.6100e-003</b>	<b>4.3000e-004</b>	<b>1.0000e-005</b>	<b>4.4000e-004</b>	<b>0</b>	<b>1.3238</b>	<b>1.3238</b>	<b>3.00E-05</b>	<b>0</b>	<b>1.3246</b>

### 3.5 Architectural Coating - 2024

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.08					0	0		0	0	0	0	0	0	0	0
Off-Road	0.0197	0.1329	0.1973	3.20E-04		6.64E-03	6.64E-03		6.64E-03	6.64E-03	0	27.8305	27.8305	1.57E-03	0	27.8696
<b>Total</b>	<b>2.0997</b>	<b>0.1329</b>	<b>0.1973</b>	<b>3.2000e-004</b>		<b>6.6400e-003</b>	<b>6.6400e-003</b>		<b>6.6400e-003</b>	<b>6.6400e-003</b>	<b>0.0000</b>	<b>27.8305</b>	<b>27.8305</b>	<b>1.5700e-003</b>	<b>0.0000</b>	<b>27.8696</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Worker	0.0158	0.0101	0.1126	4.10E-04	0.0483	3.00E-04	0.0486	0.0128	2.80E-04	0.0131	0	36.8574	36.8574	7.10E-04	0	36.8752
<b>Total</b>	<b>0.0158</b>	<b>0.0101</b>	<b>0.1126</b>	<b>4.1000e-004</b>	<b>0.0483</b>	<b>3.0000e-004</b>	<b>0.0486</b>	<b>0.0128</b>	<b>2.8000e-004</b>	<b>0.0131</b>	<b>0.0000</b>	<b>36.8574</b>	<b>36.8574</b>	<b>7.1000e-004</b>	<b>0.0000</b>	<b>36.8752</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.08					0	0		0	0	0	0	0	0	0	0
Off-Road	3.24E-03	0.014	0.1997	3.20E-04		4.30E-04	4.30E-04		4.30E-04	4.30E-04	0	27.8304	27.8304	1.57E-03	0	27.8696
<b>Total</b>	<b>2.0833</b>	<b>0.0140</b>	<b>0.1997</b>	<b>3.2000e-004</b>		<b>4.3000e-004</b>	<b>4.3000e-004</b>		<b>4.3000e-004</b>	<b>4.3000e-004</b>	<b>0</b>	<b>27.8304</b>	<b>27.8304</b>	<b>1.57E-03</b>	<b>0</b>	<b>27.8696</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Worker	0.0158	0.0101	0.1126	4.10E-04	0.0483	3.00E-04	0.0486	0.0128	2.80E-04	0.0131	0	36.8574	36.8574	7.10E-04	0	36.8752
<b>Total</b>	<b>0.0158</b>	<b>0.0101</b>	<b>0.1126</b>	<b>4.1000e-004</b>	<b>0.0483</b>	<b>3.0000e-004</b>	<b>0.0486</b>	<b>0.0128</b>	<b>2.8000e-004</b>	<b>0.0131</b>	<b>0</b>	<b>36.8574</b>	<b>36.8574</b>	<b>7.10E-04</b>	<b>0</b>	<b>36.8752</b>

**3.5 Architectural Coating - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.6602					0	0		0	0	0	0	0	0	0	0
Off-Road	0.0149	0.0997	0.1574	2.60E-04		4.48E-03	4.48E-03		4.48E-03	4.48E-03	0	22.2133	22.2133	1.21E-03	0	22.2436
<b>Total</b>	<b>1.6751</b>	<b>0.0997</b>	<b>0.1574</b>	<b>2.6000e-004</b>		<b>4.4800e-003</b>	<b>4.4800e-003</b>		<b>4.4800e-003</b>	<b>4.4800e-003</b>	<b>0.0000</b>	<b>22.2133</b>	<b>22.2133</b>	<b>1.2100e-003</b>	<b>0.0000</b>	<b>22.2436</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Worker	0.0118	7.28E-03	0.083	3.10E-04	0.0385	2.40E-04	0.0388	0.0103	2.20E-04	0.0105	0	28.2172	28.2172	5.10E-04	0	28.2301
<b>Total</b>	<b>0.0118</b>	<b>7.2800e-003</b>	<b>0.0830</b>	<b>3.1000e-004</b>	<b>0.0385</b>	<b>2.4000e-004</b>	<b>0.0388</b>	<b>0.0103</b>	<b>2.2000e-004</b>	<b>0.0105</b>	<b>0.0000</b>	<b>28.2172</b>	<b>28.2172</b>	<b>5.1000e-004</b>	<b>0.0000</b>	<b>28.2301</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.6602					0	0		0	0	0	0	0	0	0	0
Off-Road	2.59E-03	0.0112	0.1594	2.60E-04		3.40E-04	3.40E-04		3.40E-04	3.40E-04	0	22.2133	22.2133	1.21E-03	0	22.2436
<b>Total</b>	<b>1.6628</b>	<b>0.0112</b>	<b>0.1594</b>	<b>2.6000e-004</b>		<b>3.4000e-004</b>	<b>3.4000e-004</b>		<b>3.4000e-004</b>	<b>3.4000e-004</b>	<b>0</b>	<b>22.2133</b>	<b>22.2133</b>	<b>1.21E-03</b>	<b>0</b>	<b>22.2436</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Worker	0.0118	7.28E-03	0.083	3.10E-04	0.0385	2.40E-04	0.0388	0.0103	2.20E-04	0.0105	0	28.2172	28.2172	5.10E-04	0	28.2301
<b>Total</b>	<b>0.0118</b>	<b>7.2800e-003</b>	<b>0.0830</b>	<b>3.1000e-004</b>	<b>0.0385</b>	<b>2.4000e-004</b>	<b>0.0388</b>	<b>0.0103</b>	<b>2.2000e-004</b>	<b>0.0105</b>	<b>0.0000</b>	<b>28.2172</b>	<b>28.2172</b>	<b>5.1000e-004</b>	<b>0.0000</b>	<b>28.2301</b>

Station East - Phase 2 Construction - Alameda County, Summer

**Station East - Phase 2 Construction  
Alameda County, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	454.00	Space	1.41	181,600.00	0
Apartments Mid Rise	281.00	Dwelling Unit	4.07	525,951.00	804

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	63
<b>Climate Zone</b>	5			<b>Operate Year</b>	2022
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity</b>	641.35	<b>CH4 Intensity</b>	0.029	<b>N2O Intensity</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

- Project Characteristics - construction analysis only
- Land Use - lot acreage scaled by sf; land use data provided by applicant
- Construction Phase - schedule provided by applicant
- Grading -
- Construction Off-road Equipment Mitigation - Tier 4 final mitigation; BAAQMD basic construction measures
- Off-road Equipment - default equipement from RCEM
- Off-road Equipment -
- Off-road Equipment -
- Off-road Equipment -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	20.00	392.00
tblConstructionPhase	NumDays	230.00	343.00
tblConstructionPhase	NumDays	20.00	27.00
tblConstructionPhase	PhaseEndDate	3/24/2023	9/1/2025
tblConstructionPhase	PhaseEndDate	1/27/2023	12/17/2025
tblConstructionPhase	PhaseEndDate	2/24/2023	9/6/2022
tblConstructionPhase	PhaseEndDate	3/11/2022	9/7/2022
tblConstructionPhase	PhaseStartDate	2/25/2023	3/1/2024
tblConstructionPhase	PhaseStartDate	3/12/2022	8/25/2024
tblConstructionPhase	PhaseStartDate	1/28/2023	8/1/2022
tblLandUse	LandUseSquareFeet	281,000.00	525,951.00
tblLandUse	LotAcreage	4.09	1.41
tblLandUse	LotAcreage	7.39	4.07
tblOffRoadEquipment	OffRoadEquipmentType		Air Compressors
tblOffRoadEquipment	OffRoadEquipmentType		Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Generator Sets
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentType		Pumps

tblOffRoadEquipment	OffRoadEquipmentType	Scrapers
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## 2.0 Emissions Summary

### 2.1 Overall Construction (Maximum Daily Emission) Unmitigated Construction

Year	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
lb/day											lb/day					
2022	4.7194	46.7739	45.6764	0.0883	0.3286	2.1069	2.4354	0.0872	1.9720	2.0592	0.0000	8,506.636	8,506.6367	2.2115	0.0000	8,561.923
2024	21.7686	19.8023	25.7798	0.0699	3.1585	0.6957	3.8542	0.8470	0.6578	1.5048	0.0000	6,915.514	6,915.5146	0.7354	0.0000	6,933.900
2025	21.5968	18.6729	25.1545	0.0688	3.1585	0.6002	3.7588	0.8470	0.5674	1.4144	0.0000	6,806.935	6,806.9359	0.7262	0.0000	6,825.091
<b>Maximum</b>	<b>21.7686</b>	<b>46.7739</b>	<b>45.6764</b>	<b>0.0883</b>	<b>3.1585</b>	<b>2.1069</b>	<b>3.8542</b>	<b>0.8470</b>	<b>1.9720</b>	<b>2.0592</b>	<b>0.0000</b>	<b>8,506.636</b>	<b>8,506.6367</b>	<b>2.2115</b>	<b>0.0000</b>	<b>8,561.923</b>

### Mitigated Construction

Year	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
lb/day											lb/day					
2022	1.1258	4.4070	51.2992	0.0883	0.3286	0.1355	0.4641	0.0872	0.1353	0.2225	0.0000	8,506.636	8,506.6367	2.2115	0.0000	8,561.923
2024	20.4738	7.5032	27.0955	0.0699	3.1585	0.0662	3.2247	0.8470	0.0647	0.9117	0.0000	6,915.514	6,915.5146	0.7354	0.0000	6,933.900
2025	20.4160	7.4212	26.5534	0.0688	3.1585	0.0659	3.2244	0.8470	0.0644	0.9114	0.0000	6,806.935	6,806.9359	0.7262	0.0000	6,825.091
<b>Maximum</b>	<b>20.4738</b>	<b>7.5032</b>	<b>51.2992</b>	<b>0.0883</b>	<b>3.1585</b>	<b>0.1355</b>	<b>3.2247</b>	<b>0.8470</b>	<b>0.1353</b>	<b>0.9117</b>	<b>0.0000</b>	<b>8,506.636</b>	<b>8,506.6367</b>	<b>2.2115</b>	<b>0.0000</b>	<b>8,561.923</b>

Percent	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
	12.62	77.32	-8.63	0.00	0.00	92.14	31.20	0.00	91.73	58.91	0.00	0.00	0.00	0.00	0.00	0.00

## 3.0 Construction Detail

### Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Trenching	Trenching	3/12/2022	9/7/2022	5	128	
2	Building Construction	Building Construction	8/25/2024	12/17/2025	5	343	
3	Paving	Paving	8/1/2022	9/6/2022	5	27	
4	Architectural Coating	Architectural Coating	3/1/2024	9/1/2025	5	392	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 1.41

Residential Indoor: 1,065,051; Residential Outdoor: 355,017; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Trenching	Rubber Tired Dozers	0	8.00	247	0.40
Trenching	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Trenching	Air Compressors	1	8.00	78	0.48
Trenching	Forklifts	1	8.00	89	0.20
Trenching	Generator Sets	1	8.00	84	0.74
Trenching	Graders	1	8.00	187	0.41
Trenching	Plate Compactors	1	8.00	8	0.43
Trenching	Pumps	1	8.00	84	0.74
Trenching	Scrapers	2	8.00	367	0.48

**Trips and VMT**

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
Trenching	10	25.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	56.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	279.00	60.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

- Use Cleaner Engines for Construction Equipment
- Water Exposed Area
- Reduce Vehicle Speed on Unpaved Roads

**3.2 Trenching - 2022**  
**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4912	35.5771	30.1394	0.0624		1.5369	1.5369		1.4476	1.4476		5,988.1881	5,988.1881	1.4906		6,025.4527
<b>Total</b>	<b>3.4912</b>	<b>35.5771</b>	<b>30.1394</b>	<b>0.0624</b>		<b>1.5369</b>	<b>1.5369</b>		<b>1.4476</b>	<b>1.4476</b>		<b>5,988.1881</b>	<b>5,988.1881</b>	<b>1.4906</b>		<b>6,025.4527</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0784	0.0450	0.5978	1.9500e-003	0.2054	1.2900e-003	0.2067	0.0545	1.1900e-003	0.0557		194.2427	194.2427	4.2900e-003		194.3500
<b>Total</b>	<b>0.0784</b>	<b>0.0450</b>	<b>0.5978</b>	<b>1.9500e-003</b>	<b>0.2054</b>	<b>1.2900e-003</b>	<b>0.2067</b>	<b>0.0545</b>	<b>1.1900e-003</b>	<b>0.0557</b>		<b>194.2427</b>	<b>194.2427</b>	<b>4.2900e-003</b>		<b>194.3500</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7199	3.1197	33.0471	0.0624		0.0960	0.0960		0.0960	0.0960	0.0000	5,988.1881	5,988.1881	1.4906		6,025.4526
<b>Total</b>	<b>0.7199</b>	<b>3.1197</b>	<b>33.0471</b>	<b>0.0624</b>		<b>0.0960</b>	<b>0.0960</b>		<b>0.0960</b>	<b>0.0960</b>	<b>0.0000</b>	<b>5,988.1881</b>	<b>5,988.1881</b>	<b>1.4906</b>		<b>6,025.4526</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0784	0.0450	0.5978	1.9500e-003	0.2054	1.2900e-003	0.2067	0.0545	1.1900e-003	0.0557		194.2427	194.2427	4.2900e-003		194.3500
<b>Total</b>	<b>0.0784</b>	<b>0.0450</b>	<b>0.5978</b>	<b>1.9500e-003</b>	<b>0.2054</b>	<b>1.2900e-003</b>	<b>0.2067</b>	<b>0.0545</b>	<b>1.1900e-003</b>	<b>0.0557</b>		<b>194.2427</b>	<b>194.2427</b>	<b>4.2900e-003</b>		<b>194.3500</b>

**3.3 Building Construction - 2024**  
**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					



Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
<b>Total</b>	<b>1.4716</b>	<b>13.4438</b>	<b>16.1668</b>	<b>0.0270</b>		<b>0.6133</b>	<b>0.6133</b>		<b>0.5769</b>	<b>0.5769</b>		<b>2,555.6989</b>	<b>2,555.6989</b>	<b>0.6044</b>		<b>2,570.8077</b>

**Unmitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1206	4.6523	0.9982	0.0158	0.4066	4.8700e-003	0.4115	0.1171	4.6600e-003	0.1217		1,674.4280	1,674.4280	0.0688		1,676.1481
Worker	0.7601	0.4060	5.6671	0.0201	2.2919	0.0138	2.3057	0.6079	0.0127	0.6206		2,002.0871	2,002.0871	0.0387		2,003.0534
<b>Total</b>	<b>0.8807</b>	<b>5.0582</b>	<b>6.6653</b>	<b>0.0359</b>	<b>2.6985</b>	<b>0.0187</b>	<b>2.7172</b>	<b>0.7250</b>	<b>0.0174</b>	<b>0.7424</b>		<b>3,676.5151</b>	<b>3,676.5151</b>	<b>0.1075</b>		<b>3,679.2015</b>

**Mitigated Construction On-Site**

Category	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
<b>Total</b>	<b>0.3278</b>	<b>2.2347</b>	<b>17.4603</b>	<b>0.0270</b>		<b>0.0408</b>	<b>0.0408</b>		<b>0.0408</b>	<b>0.0408</b>	<b>0.0000</b>	<b>2,555.6989</b>	<b>2,555.6989</b>	<b>0.6044</b>		<b>2,570.8077</b>

**Mitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1206	4.6523	0.9982	0.0158	0.4066	4.8700e-003	0.4115	0.1171	4.6600e-003	0.1217		1,674.4280	1,674.4280	0.0688		1,676.1481
Worker	0.7601	0.4060	5.6671	0.0201	2.2919	0.0138	2.3057	0.6079	0.0127	0.6206		2,002.0871	2,002.0871	0.0387		2,003.0534
<b>Total</b>	<b>0.8807</b>	<b>5.0582</b>	<b>6.6653</b>	<b>0.0359</b>	<b>2.6985</b>	<b>0.0187</b>	<b>2.7172</b>	<b>0.7250</b>	<b>0.0174</b>	<b>0.7424</b>		<b>3,676.5151</b>	<b>3,676.5151</b>	<b>0.1075</b>		<b>3,679.2015</b>

**3.3 Building Construction - 2025**

**Unmitigated Construction On-Site**

Category	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
<b>Total</b>	<b>1.3674</b>	<b>12.4697</b>	<b>16.0847</b>	<b>0.0270</b>		<b>0.5276</b>	<b>0.5276</b>		<b>0.4963</b>	<b>0.4963</b>		<b>2,556.4744</b>	<b>2,556.4744</b>	<b>0.6010</b>		<b>2,571.4981</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1175	4.6155	0.9631	0.0157	0.4066	4.8100e-	0.4114	0.1171	4.6000e-	0.1217		1,663.302	1,663.3026	0.0679		1,664.998
Worker	0.7147	0.3684	5.2449	0.0193	2.2919	0.0136	2.3055	0.6079	0.0125	0.6204		1,920.278	1,920.2787	0.0350		1,921.154
<b>Total</b>	<b>0.8321</b>	<b>4.9838</b>	<b>6.2080</b>	<b>0.0350</b>	<b>2.6985</b>	<b>0.0184</b>	<b>2.7169</b>	<b>0.7250</b>	<b>0.0171</b>	<b>0.7421</b>		<b>3,583.581</b>	<b>3,583.5812</b>	<b>0.1029</b>		<b>3,586.153</b>
												<b>2</b>	<b>2</b>			<b>0</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,556.474	2,556.4744	0.6010		2,571.498
<b>Total</b>	<b>0.3278</b>	<b>2.2347</b>	<b>17.4603</b>	<b>0.0270</b>		<b>0.0408</b>	<b>0.0408</b>		<b>0.0408</b>	<b>0.0408</b>	<b>0.0000</b>	<b>2,556.474</b>	<b>2,556.4744</b>	<b>0.6010</b>		<b>2,571.498</b>
												<b>4</b>	<b>4</b>			<b>1</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1175	4.6155	0.9631	0.0157	0.4066	4.8100e-	0.4114	0.1171	4.6000e-	0.1217		1,663.302	1,663.3026	0.0679		1,664.998
Worker	0.7147	0.3684	5.2449	0.0193	2.2919	0.0136	2.3055	0.6079	0.0125	0.6204		1,920.278	1,920.2787	0.0350		1,921.154
<b>Total</b>	<b>0.8321</b>	<b>4.9838</b>	<b>6.2080</b>	<b>0.0350</b>	<b>2.6985</b>	<b>0.0184</b>	<b>2.7169</b>	<b>0.7250</b>	<b>0.0171</b>	<b>0.7421</b>		<b>3,583.581</b>	<b>3,583.5812</b>	<b>0.1029</b>		<b>3,586.153</b>
												<b>2</b>	<b>2</b>			<b>0</b>

**3.4 Paving - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.660	2,207.6603	0.7140		2,225.510
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.1028</b>	<b>11.1249</b>	<b>14.5805</b>	<b>0.0228</b>		<b>0.5679</b>	<b>0.5679</b>		<b>0.5225</b>	<b>0.5225</b>		<b>2,207.660</b>	<b>2,207.6603</b>	<b>0.7140</b>		<b>2,225.510</b>
												<b>3</b>	<b>3</b>			<b>4</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0470	0.0270	0.3587	1.1700e-003	0.1232	7.8000e-004	0.1240	0.0327	7.2000e-004	0.0334		116.5456	116.5456	2.5800e-003		116.6100
<b>Total</b>	<b>0.0470</b>	<b>0.0270</b>	<b>0.3587</b>	<b>1.1700e-003</b>	<b>0.1232</b>	<b>7.8000e-004</b>	<b>0.1240</b>	<b>0.0327</b>	<b>7.2000e-004</b>	<b>0.0334</b>		<b>116.5456</b>	<b>116.5456</b>	<b>2.5800e-003</b>		<b>116.6100</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.660	2,207.6603	0.7140		2,225.510
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.2805</b>	<b>1.2154</b>	<b>17.2957</b>	<b>0.0228</b>		<b>0.0374</b>	<b>0.0374</b>		<b>0.0374</b>	<b>0.0374</b>	<b>0.0000</b>	<b>2,207.6603</b>	<b>2,207.6603</b>	<b>0.7140</b>		<b>2,225.5104</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0470	0.0270	0.3587	1.1700e-003	0.1232	7.8000e-004	0.1240	0.0327	7.2000e-004	0.0334		116.5456	116.5456	2.5800e-003		116.6100
<b>Total</b>	<b>0.0470</b>	<b>0.0270</b>	<b>0.3587</b>	<b>1.1700e-003</b>	<b>0.1232</b>	<b>7.8000e-004</b>	<b>0.1240</b>	<b>0.0327</b>	<b>7.2000e-004</b>	<b>0.0334</b>		<b>116.5456</b>	<b>116.5456</b>	<b>2.5800e-003</b>		<b>116.6100</b>

**3.5 Architectural Coating - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	19.0830					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
<b>Total</b>	<b>19.2637</b>	<b>1.2188</b>	<b>1.8101</b>	<b>2.9700e-003</b>		<b>0.0609</b>	<b>0.0609</b>		<b>0.0609</b>	<b>0.0609</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0159</b>		<b>281.8443</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1526	0.0815	1.1375	4.0300e-003	0.4600	2.7700e-003	0.4628	0.1220	2.5500e-003	0.1246		401.8526	401.8526	7.7600e-003		402.0466

<b>Total</b>	<b>0.1526</b>	<b>0.0815</b>	<b>1.1375</b>	<b>4.0300e-003</b>	<b>0.4600</b>	<b>2.7700e-003</b>	<b>0.4628</b>	<b>0.1220</b>	<b>2.5500e-003</b>	<b>0.1246</b>		<b>401.8526</b>	<b>401.8526</b>	<b>7.7600e-003</b>		<b>402.0466</b>
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**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	19.0830					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0159		281.8443
<b>Total</b>	<b>19.1127</b>	<b>0.1288</b>	<b>1.8324</b>	<b>2.9700e-003</b>		<b>3.9600e-003</b>	<b>3.9600e-003</b>		<b>3.9600e-003</b>	<b>3.9600e-003</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0159</b>		<b>281.8443</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1526	0.0815	1.1375	4.0300e-003	0.4600	2.7700e-003	0.4628	0.1220	2.5500e-003	0.1246		401.8526	401.8526	7.7600e-003		402.0466
<b>Total</b>	<b>0.1526</b>	<b>0.0815</b>	<b>1.1375</b>	<b>4.0300e-003</b>	<b>0.4600</b>	<b>2.7700e-003</b>	<b>0.4628</b>	<b>0.1220</b>	<b>2.5500e-003</b>	<b>0.1246</b>		<b>401.8526</b>	<b>401.8526</b>	<b>7.7600e-003</b>		<b>402.0466</b>

**3.5 Architectural Coating - 2025  
Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	19.0830					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
<b>Total</b>	<b>19.2538</b>	<b>1.1455</b>	<b>1.8091</b>	<b>2.9700e-003</b>		<b>0.0515</b>	<b>0.0515</b>		<b>0.0515</b>	<b>0.0515</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0154</b>		<b>281.8319</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1434	0.0739	1.0527	3.8600e-003	0.4600	2.7300e-003	0.4628	0.1220	2.5100e-003	0.1245		385.4323	385.4323	7.0300e-003		385.6080
<b>Total</b>	<b>0.1434</b>	<b>0.0739</b>	<b>1.0527</b>	<b>3.8600e-003</b>	<b>0.4600</b>	<b>2.7300e-003</b>	<b>0.4628</b>	<b>0.1220</b>	<b>2.5100e-003</b>	<b>0.1245</b>		<b>385.4323</b>	<b>385.4323</b>	<b>7.0300e-003</b>		<b>385.6080</b>

### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	19.0830					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.8319
<b>Total</b>	<b>19.1127</b>	<b>0.1288</b>	<b>1.8324</b>	<b>2.9700e-003</b>		<b>3.9600e-003</b>	<b>3.9600e-003</b>		<b>3.9600e-003</b>	<b>3.9600e-003</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0154</b>		<b>281.8319</b>

### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1434	0.0739	1.0527	3.8600e-003	0.4600	2.7300e-003	0.4628	0.1220	2.5100e-003	0.1245		385.4323	385.4323	7.0300e-003		385.6080
<b>Total</b>	<b>0.1434</b>	<b>0.0739</b>	<b>1.0527</b>	<b>3.8600e-003</b>	<b>0.4600</b>	<b>2.7300e-003</b>	<b>0.4628</b>	<b>0.1220</b>	<b>2.5100e-003</b>	<b>0.1245</b>		<b>385.4323</b>	<b>385.4323</b>	<b>7.0300e-003</b>		<b>385.6080</b>

**GHG Emission Factors (Energy)**

**eGrid2018 Emission Factors**

496.536 lb CO2/MWh

0.034 lb CH4/MWh  
0.004 lb N2O/MWh

[https://www.epa.gov/sites/production/files/2020-01/documents/egrid2018\\_summary\\_tables.pdf](https://www.epa.gov/sites/production/files/2020-01/documents/egrid2018_summary_tables.pdf)

**PG&E**

210.000 lb CO2/MWh

[https://www.pge.com/en\\_US/about-pge/environment/what-we-are-doing/fighting-climate-change/fighting-climate-change\\_page](https://www.pge.com/en_US/about-pge/environment/what-we-are-doing/fighting-climate-change/fighting-climate-change_page)  
[https://www.pge.com/pge\\_global/common/pdfs/your-account/your-bill/understand-your-bill/bill-inserts/2019/1019-Power-Content-Label.pdf](https://www.pge.com/pge_global/common/pdfs/your-account/your-bill/understand-your-bill/bill-inserts/2019/1019-Power-Content-Label.pdf)

	%	EF (lb/MWh)		
		CO2	CH4	N2O
<b>2018 CA</b>				
Hydro	10.68%	0	0	0
Nuclear	9.05%	0	0	0
Renewable	31.36%	0	0	0
Non-renewable	48.91%	1015	0.070	0.008
Total	100.00%	497	0.034	0.004
<b>2020 (RPS = 33%)</b>				
Hydro	10.68%	0	0	0
Nuclear	9.05%	0	0	0
Renewable	33.00%	0	0	0
Non-renewable	47.27%	1015	0.070	0.008
Total	100.00%	480	0.033	0.004
<b>2030 (RPS = 60%)</b>				
Hydro	10.68%	0	0	0
Nuclear	0.00%	0	0	0
Renewable	60.00%	0	0	0
Non-renewable	29.32%	1015	0.070	0.008
Total	100.00%	298	0.020	0.002
<b>2045 (Carbon Free)</b>				
Hydro	10.68%	0	0	0
Nuclear	0.00%	0	0	0
Renewable	89.32%	0	0	0
Non-renewable	0.00%	1015	0.070	0.008
Total	100.00%	0	0.000	0.000

Year	EF (lb/MWh)		
	CO2	CH4	N2O
2016	497	0.034	0.004
2017	497	0.034	0.004
2018	492	0.034	0.004
2019	488	0.034	0.004
2020	480	0.033	0.004
2021	462	0.032	0.004
2022	443	0.030	0.004
2023	425	0.029	0.003
2024	407	0.028	0.003
2025	389	0.027	0.003
2026	371	0.025	0.003
2027	352	0.024	0.003
2028	334	0.023	0.003
2029	316	0.022	0.003
2030	298	0.020	0.002
2031	278	0.019	0.002
2032	258	0.018	0.002
2033	238	0.016	0.002
2034	218	0.015	0.002
2035	198	0.014	0.002
2036	179	0.012	0.001
2037	159	0.011	0.001
2038	139	0.010	0.001
2039	119	0.008	0.001
2040	99	0.007	0.0008
2041	79	0.005	0.001
2042	60	0.004	0.000
2043	40	0.003	0.000
2044	20	0.001	0.000
2045	0	0.000	0.000

	%	EF (lb/MWh)		Year	EF (lb/MWh)
		CO2	CO2		
<b>2017 PGE</b>					
Hydro	13.00%	0	0	2016	-
Nuclear	34.00%	0	0	2017	210
Renewable	39.00%	0	0	2018	210
Non-renewable	14.00%	1500	0	2019	210
Total	100.00%	210	0	2020	210
				2021	189
<b>2020 (RPS = 33%)</b>				2022	168
Hydro	13.00%	0	0	2023	147
Nuclear	34.00%	0	0	2024	126
Renewable	39.00%	0	0	2025	105
Non-renewable	14.00%	1500	0	2026	84
Total	100.00%	210	0	2027	63
				2028	42
				2029	21
<b>2030 (RPS = 60%)</b>				2030	0
Hydro	13.00%	0	0	2031	0
Nuclear	34.00%	0	0	2032	0
Renewable	60.00%	0	0	2033	0
Non-renewable	0.00%	0	0	2034	0
Total	107.00%	0	0	2035	0
				2036	0
				2037	0
<b>2045 (Carbon Free)</b>				2038	0
Hydro	0.00%	0	0	2039	0
Nuclear	0.00%	0	0	2040	0
Renewable	100.00%	0	0	2041	0
Non-renewable	0.00%	0	0	2042	0
Total	100.00%	0	0	2043	0
				2044	0
				2045	0

Emission Factors -MY2010+ Haul Trucks

	Running (RUNEX, PMTW, PMBW) grams per mile										Process (IDEX, STREX, TOTEX, DIURN, HTSK, RUNLS, RESTL) grams per trip											
	ROG	TOG	CO	NOx	CO2	CH4	PM10 Ex	PM10 D	PM2.5 Ex	PM2.5 D	SOX	N2O	ROG	TOG	CO	NOx	CO2	CH4	PM10	PM2.5	SOX	N2O
2021	0.04	0.05	0.42	3.06	1779.29	0.00	0.01	0.93	0.01	0.24	0.02	0.28	0.03	0.04	0.48	0.79	87.86	0.00	0.00	0.00	0.00	0.01
2022	0.04	0.05	0.42	3.07	1748.57	0.00	0.01	0.93	0.01	0.24	0.02	0.27	0.03	0.03	0.44	0.74	80.43	0.00	0.00	0.00	0.00	0.01
2023	0.03	0.03	0.40	2.98	1714.99	0.00	0.01	0.93	0.01	0.24	0.02	0.27	0.03	0.03	0.42	0.70	75.13	0.00	0.00	0.00	0.00	0.01
2024	0.03	0.03	0.41	3.02	1693.55	0.00	0.01	0.93	0.01	0.24	0.02	0.27	0.03	0.03	0.41	0.68	72.32	0.00	0.00	0.00	0.00	0.01
2025	0.03	0.03	0.41	3.06	1672.88	0.00	0.01	0.93	0.01	0.24	0.02	0.26	0.03	0.03	0.40	0.67	70.04	0.00	0.00	0.00	0.00	0.01
lbs/day																						
Phase	Vehicle	Days	Vehicles/Year	Miles/Vehicle	Running										Process							
					ROG	NOx	CO	SO2	PM10 Dust	PM10 Ex	PM10 Total	PM2.5 Dust	PM2.5 Ex	PM2.5 Total	CO2	CH4	N2O	CO2e				
Phase 1 - Demolition (2021)	Haul Trucks	107	256	20	0.005	0.327	0.325	0.002	9.76E-02	1.49E-03	9.91E-02	2.52E-02	1.43E-03	2.66E-02	9.1	0.0	0.0	9.6				
Phase 1 - Grading (2021)	Haul Trucks	107	10,000	20	0.179	12.761	1.840	0.069	3.81E+00	5.83E-02	3.87E+00	9.83E-01	5.58E-02	1.04E+00	356.7	0.0	0.1	373.5				
Phase 1 - Building Construction (2022)	Vendor Trucks	210	54	7.3	0.000	0.013	0.002	0.000	3.86E-03	5.97E-05	3.92E-03	9.96E-04	5.72E-05	1.05E-03	0.7	0.0	0.0	0.7				
Phase 1 - Building Construction (2023)	Vendor Trucks	250	65	7.3	0.000	0.013	7.159	0.000	3.86E-03	5.38E-05	3.92E-03	9.96E-04	5.38E-05	1.05E-03	0.8	0.0	0.0	0.9				
Phase 1 - Building Construction (2024)	Vendor Trucks	180	47	7.3	0.000	0.013	0.002	0.000	3.86E-03	5.75E-05	3.92E-03	9.96E-04	5.50E-05	1.05E-03	0.6	0.0	0.0	0.6				
Phase 2 - Building Construction (2024)	Vendor Trucks	93	16	7.3	0.000	0.009	0.001	0.000	2.60E-03	3.87E-05	2.64E-03	6.72E-04	3.71E-05	7.09E-04	0.2	0.0	0.0	0.2				
Phase 2 - Building Construction (2025)	Vendor Trucks	250	44	7.3	0.000	0.009	0.001	0.000	2.60E-03	3.96E-05	2.64E-03	6.72E-04	3.79E-05	7.10E-04	0.5	0.0	0.0	0.6				
lb_gram	0.00220462																					
MT_gram	1.00E-06																					
CH4 gwp	25																					
N2O gwp	298																					

Road Construction Emissions Model, Version 9.0.0

Daily Emission Estimates for ->														
Project Phases (Pounds)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	Total PM10 (lbs/day)	Exhaust PM10 (lbs/day)	Fugitive Dust PM10 (lbs/day)	Total PM2.5 (lbs/day)	Exhaust PM2.5 (lbs/day)	Fugitive Dust PM2.5 (lbs/day)	SOx (lbs/day)	CO2 (lbs/day)	CH4 (lbs/day)	N2O (lbs/day)	CO2e (lbs/day)
Grubbing/Land Clearing	0.32	7.61	0.93	0.55	0.06	0.50	0.14	0.04	0.10	0.01	1,211.04	0.30	0.04	1,229.48
Grading/Excavation	0.44	9.43	2.34	0.66	0.16	0.50	0.19	0.08	0.10	0.02	2,371.41	0.31	0.16	2,427.06
Drainage/Utilities/Sub-Grade	0.39	8.61	1.02	0.59	0.10	0.50	0.16	0.05	0.10	0.01	1,483.61	0.30	0.04	1,504.52
Paving	0.36	8.16	0.98	0.08	0.08	0.00	0.05	0.05	0.00	0.01	1,362.47	0.30	0.04	1,382.28
Maximum (pounds/day)	0.44	9.43	2.34	0.66	0.16	0.50	0.19	0.08	0.10	0.02	2,371.41	0.31	0.16	2,427.06
Total (tons/construction project)	0.00	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.86	0.00	0.00	10.05

Notes:  
 Project Start Year -> 2021  
 Project Length (months) -> 1  
 Total Project Area (acres) -> 0  
 Maximum Area Disturbed/Day (acres) -> 0  
 Water Truck Used? -> Yes

Phase	Total Material Imported/Exported Volume (yd <sup>3</sup> /day)		Daily VMT (miles/day)			
	Soil	Asphalt	Soil Hauling	Asphalt Hauling	Worker Commute	Water Truck
Grubbing/Land Clearing	0	0	0	0	200	0
Grading/Excavation	60	60	90	90	800	0
Drainage/Utilities/Sub-Grade	0	0	0	0	560	0
Paving	0	0	0	0	400	0

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1, 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

Total Emission Estimates by Phase for ->														
Project Phases (Tons for all except CO2e. Metric tonnes for CO2e)	ROG (tons/phase)	CO (tons/phase)	NOx (tons/phase)	Total PM10 (tons/phase)	Exhaust PM10 (tons/phase)	Fugitive Dust PM10 (tons/phase)	Total PM2.5 (tons/phase)	Exhaust PM2.5 (tons/phase)	Fugitive Dust PM2.5 (tons/phase)	SOx (tons/phase)	CO2 (tons/phase)	CH4 (tons/phase)	N2O (tons/phase)	CO2e (MT/phase)
Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0.00	0.00	0.61
Grading/Excavation	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.22	0.00	0.00	4.84
Drainage/Utilities/Sub-Grade	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.86	0.00	0.00	2.63
Paving	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.12	0.00	0.00	1.03
Maximum (tons/phase)	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.22	0.00	0.00	4.84
Total (tons/construction project)	0.00	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.86	0.00	0.00	9.12

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1, 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

The CO2e emissions are reported as metric tons per phase.




**Road Construction Emissions Model**  
**Data Entry Worksheet**

Note: Required data input sections have a yellow background.  
Optional data input sections have a blue background. Only areas with a yellow or blue background can be modified. Program defaults have a white background.  
The user is required to enter information in cells D10 through D24, E28 through G35, and D38 through D41 for all project types.  
Please use "Clear Data Input & User Overrides" button first before changing the Project Type or begin a new project.

**Input Type**

Project Name		
Construction Start Year	2021	Enter a Year between 2014 and 2040 (inclusive)
Project Type	2	1) New Road Construction : Project to build a roadway from bare ground, which generally requires more site preparation than widening an existing roadway 2) Road Widening : Project to add a new lane to an existing roadway 3) Bridge/Overpass Construction : Project to build an elevated roadway, which generally requires some different equipment than a new roadway, such as a crane 4) Other Linear Project Type: Non-roadway project such as a pipeline, transmission line, or levee construction
Project Construction Time	0.50	months
Working Days per Month	22.00	days (assume 22 if unknown)
Predominant Soil/Site Type: Enter 1, 2, or 3 <small>(for project within "Sacramento County", follow soil type selection instructions in cells E18 to E20 otherwise see instructions provided in cells J19 to J22)</small>	1	1) Sand Gravel : Use for quaternary deposits (Delta/West County) 2) Weathered Rock-Earth : Use for Laguna formation (Jackson Highway area) or the lone formation (Scott Road, Rancho Murieta) 3) Blasted Rock : Use for Salt Springs Slate or Copper Hill Volcanics (Folsom South of Highway 50, Rancho Murieta)
Project Length	0.02	miles
Total Project Area	0.05	acres
Maximum Area Disturbed/Day	0.05	acres
Water Trucks Used?	2	1. Yes 2. No



To begin a new project, click this button to clear data previously entered. This button will only work if you opted not to disable macros when loading this spreadsheet.

Please note that the soil type instructions provided in cells E18 to E20 are specific to Sacramento County. Maps available from the California Geologic Survey (see weblink below) can be used to determine soil type outside Sacramento County.

[http://www.conservation.ca.gov/cgs/information/geologic\\_mapping/E ages/geodetmaps.aspx#tab=soilsseries](http://www.conservation.ca.gov/cgs/information/geologic_mapping/E ages/geodetmaps.aspx#tab=soilsseries)

**Material Hauling Quantity Input**

Material Type	Phase	Haul Truck Capacity (yd <sup>3</sup> ) (assume 20 if unknown)	Import Volume (yd <sup>3</sup> /day)	Export Volume (yd <sup>3</sup> /day)
Soil	Grubbing/Land Clearing	20.00		60.00
	Grading/Excavation	20.00		
	Drainage/Utilities/Sub-Grade	20.00		
	Paving	20.00		
Asphalt	Grubbing/Land Clearing	20.00		60.00
	Grading/Excavation	20.00		
	Drainage/Utilities/Sub-Grade	20.00		
	Paving	20.00		

**Mitigation Options**

On-road Fleet Emissions Mitigation	2010 and Newer On-road Vehicles Fleet	Select "2010 and Newer On-road Vehicles Fleet" option when the on-road heavy-duty truck fleet for the project will be limited to vehicles of model year 2010 or newer
Off-road Equipment Emissions Mitigation	Tier 4 Equipment	Select "20% NOx and 45% Exhaust PM reduction" option if the project will be required to use a lower emitting off-road construction fleet. The SMAQMD Construction Mitigation Calculator can be used to confirm compliance with this mitigation measure ( <a href="http://www.airquality.org/Businesses/CEQA-Land-Use-Planning/Mitigation">http://www.airquality.org/Businesses/CEQA-Land-Use-Planning/Mitigation</a> ).
Will all off-road equipment be tier 4?	All Tier 4 Equipment	Select "Tier 4 Equipment" option if some or all off-road equipment used for the project meets CARB Tier 4 Standard

The remaining sections of this sheet contain areas that can be modified by the user, although those modifications are optional.

Note: The program's estimates of construction period phase length can be overridden in cells D50 through D53, and F50 through F53.

Construction Periods	User Override of Construction Months	Program Calculated Months	User Override of Phase Starting Date	Program Default Phase Starting Date
Grubbing/Land Clearing		0.05	9/13/2021	1/1/2021
Grading/Excavation		0.20	9/15/2021	1/2/2021
Drainage/Utilities/Sub-Grade		0.18	9/22/2021	1/10/2021
Paving		0.08	9/28/2021	1/16/2021
<b>Totals (Months)</b>		<b>1</b>		

Note: Soil Hauling emission default values can be overridden in cells D61 through D64, and F61 through F64.

Soil Hauling Emissions										
User Input	User Override of Miles/Round Trip	Program Estimate of Miles/Round Trip	User Override of Truck Round Trips/Day	Default Values Round Trips/Day	Calculated Daily VMT					
Miles/round trip: Grubbing/Land Clearing		30.00		0	0.00					
Miles/round trip: Grading/Excavation		30.00		3	90.00					
Miles/round trip: Drainage/Utilities/Sub-Grade		30.00		0	0.00					
Miles/round trip: Paving		30.00		0	0.00					
<b>2010+ Model Year Mitigation Option Emission Rates</b>	<b>ROG</b>	<b>CO</b>	<b>NOx</b>	<b>PM10</b>	<b>PM2.5</b>	<b>SOx</b>	<b>CO2</b>	<b>CH4</b>	<b>N2O</b>	<b>CO2e</b>
Grubbing/Land Clearing (grams/mile)	0.04	0.42	3.06	0.11	0.05	0.02	1,779.29	0.00	0.28	1,862.69
Grading/Excavation (grams/mile)	0.04	0.42	3.06	0.11	0.05	0.02	1,779.29	0.00	0.28	1,862.69
Drainage/Utilities/Sub-Grade (grams/mile)	0.04	0.42	3.06	0.11	0.05	0.02	1,779.29	0.00	0.28	1,862.69
Paving (grams/mile)	0.04	0.42	3.06	0.11	0.05	0.02	1,779.29	0.00	0.28	1,862.69
Grubbing/Land Clearing (grams/trip)	0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Excavation (grams/trip)	0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drainage/Utilities/Sub-Grade (grams/trip)	0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/trip)	0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Hauling Emissions</b>	<b>ROG</b>	<b>CO</b>	<b>NOx</b>	<b>PM10</b>	<b>PM2.5</b>	<b>SOx</b>	<b>CO2</b>	<b>CH4</b>	<b>N2O</b>	<b>CO2e</b>
Pounds per day - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Grading/Excavation	0.01	0.08	0.63	0.02	0.01	0.00	353.04	0.00	0.06	369.59
Tons per const. Period - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.78	0.00	0.00	0.81
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons per construction project	0.00	0.00	0.00	0.00	0.00	0.00	0.78	0.00	0.00	0.81

Note: Asphalt Hauling emission default values can be overridden in cells D91 through D94, and F91 through F94.

Asphalt Hauling Emissions										
User Input	User Override of Miles/Round Trip	Program Estimate of Miles/Round Trip	User Override of Truck Round Trips/Day	Default Values Round Trips/Day	Calculated Daily VMT					
Miles/round trip: Grubbing/Land Clearing		30.00		0	0.00					
Miles/round trip: Grading/Excavation		30.00		3	90.00					
Miles/round trip: Drainage/Utilities/Sub-Grade		30.00		0	0.00					
Miles/round trip: Paving		30.00		0	0.00					
<b>2010+ Model Year Mitigation Option Emission Rates</b>	<b>ROG</b>	<b>CO</b>	<b>NOx</b>	<b>PM10</b>	<b>PM2.5</b>	<b>SOx</b>	<b>CO2</b>	<b>CH4</b>	<b>N2O</b>	<b>CO2e</b>
Grubbing/Land Clearing (grams/mile)	0.04	0.42	3.06	0.11	0.05	0.02	1,779.29	0.00	0.28	1,862.69
Grading/Excavation (grams/mile)	0.04	0.42	3.06	0.11	0.05	0.02	1,779.29	0.00	0.28	1,862.69
Drainage/Utilities/Sub-Grade (grams/mile)	0.04	0.42	3.06	0.11	0.05	0.02	1,779.29	0.00	0.28	1,862.69
Paving (grams/mile)	0.04	0.42	3.06	0.11	0.05	0.02	1,779.29	0.00	0.28	1,862.69
Grubbing/Land Clearing (grams/trip)	0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Excavation (grams/trip)	0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drainage/Utilities/Sub-Grade (grams/trip)	0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/trip)	0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Emissions</b>	<b>ROG</b>	<b>CO</b>	<b>NOx</b>	<b>PM10</b>	<b>PM2.5</b>	<b>SOx</b>	<b>CO2</b>	<b>CH4</b>	<b>N2O</b>	<b>CO2e</b>
Pounds per day - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Grading/Excavation	0.01	0.08	0.63	0.02	0.01	0.00	353.04	0.00	0.06	369.59
Tons per const. Period - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.78	0.00	0.00	0.81
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons per construction project	0.00	0.00	0.00	0.00	0.00	0.00	0.78	0.00	0.00	0.81

Note: Worker commute default values can be overridden in cells D121 through D126.

Worker Commute Emissions		User Override of Worker Commute Default Values		Default Values		Calculated		Calculated		
User Input		20	20	Daily Trips	Daily VMT					
Miles/ one-way trip		20								
One-way trips/day		2								
No. of employees: Grubbing/Land Clearing		5		10	200.00					
No. of employees: Grading/Excavation		20		40	800.00					
No. of employees: Drainage/Utilities/Sub-Grade		14		28	560.00					
No. of employees: Paving		10		20	400.00					
<b>Emission Rates</b>	<b>ROG</b>	<b>CO</b>	<b>NOx</b>	<b>PM10</b>	<b>PM2.5</b>	<b>SOx</b>	<b>CO2</b>	<b>CH4</b>	<b>N2O</b>	<b>CO2e</b>
Grubbing/Land Clearing (grams/mile)	0.02	1.10	0.10	0.05	0.02	0.00	339.80	0.00	0.01	342.28
Grading/Excavation (grams/mile)	0.02	1.10	0.10	0.05	0.02	0.00	339.80	0.00	0.01	342.28
Draining/Utilities/Sub-Grade (grams/mile)	0.02	1.10	0.10	0.05	0.02	0.00	339.80	0.00	0.01	342.28
Paving (grams/mile)	0.02	1.10	0.10	0.05	0.02	0.00	339.80	0.00	0.01	342.28
Grubbing/Land Clearing (grams/trip)	1.18	2.95	0.34	0.00	0.00	0.00	72.81	0.08	0.04	85.39
Grading/Excavation (grams/trip)	1.18	2.95	0.34	0.00	0.00	0.00	72.81	0.08	0.04	85.39
Draining/Utilities/Sub-Grade (grams/trip)	1.18	2.95	0.34	0.00	0.00	0.00	72.81	0.08	0.04	85.39
Paving (grams/trip)	1.18	2.95	0.34	0.00	0.00	0.00	72.81	0.08	0.04	85.39
<b>Emissions</b>	<b>ROG</b>	<b>CO</b>	<b>NOx</b>	<b>PM10</b>	<b>PM2.5</b>	<b>SOx</b>	<b>CO2</b>	<b>CH4</b>	<b>N2O</b>	<b>CO2e</b>
Pounds per day - Grubbing/Land Clearing	0.03	0.55	0.05	0.02	0.01	0.00	151.43	0.00	0.00	152.90
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.08
Pounds per day - Grading/Excavation	0.14	2.20	0.20	0.08	0.03	0.01	605.72	0.02	0.02	611.21
Tons per const. Period - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	1.33	0.00	0.00	1.34
Pounds per day - Drainage/Utilities/Sub-Grade	0.10	1.54	0.14	0.06	0.02	0.00	424.00	0.01	0.01	427.85
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.82	0.00	0.00	0.82
Pounds per day - Paving	0.07	1.10	0.10	0.04	0.02	0.00	302.86	0.01	0.01	305.60
Tons per const. Period - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.25
Total tons per construction project	0.00	0.01	0.00	0.00	0.00	0.00	2.48	0.00	0.00	2.50

Note: Water Truck default values can be overridden in cells D153 through D156, I153 through I156, and F153 through F156.

Water Truck Emissions		User Override of Program Estimate of		User Override of Default Values		Calculated		User Override of Default Values		Calculated	
User Input		Default # Water Trucks	Number of Water Trucks	Round Trips/Vehicle/Day	Round Trips/Vehicles/Day	Trips/day	Miles/Round Trip	Miles/Round Trip	Miles/Round Trip	Daily VMT	
Grubbing/Land Clearing - Exhaust		0			5	0		8.00		0.00	
Grading/Excavation - Exhaust		0			5	0		8.00		0.00	
Drainage/Utilities/Subgrade		0			5	0		8.00		0.00	
Paving		0			5	0		8.00		0.00	
<b>2010+ Model Year Mitigation Option Emission Rates</b>	<b>ROG</b>	<b>CO</b>	<b>NOx</b>	<b>PM10</b>	<b>PM2.5</b>	<b>SOx</b>	<b>CO2</b>	<b>CH4</b>	<b>N2O</b>	<b>CO2e</b>	
Grubbing/Land Clearing (grams/mile)	0.04	0.42	3.06	0.11	0.05	0.02	1,779.29	0.00	0.28	1,862.69	
Grading/Excavation (grams/mile)	0.04	0.42	3.06	0.11	0.05	0.02	1,779.29	0.00	0.28	1,862.69	
Draining/Utilities/Sub-Grade (grams/mile)	0.04	0.42	3.06	0.11	0.05	0.02	1,779.29	0.00	0.28	1,862.69	
Paving (grams/mile)	0.04	0.42	3.06	0.11	0.05	0.02	1,779.29	0.00	0.28	1,862.69	
Grubbing/Land Clearing (grams/trip)	0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Grading/Excavation (grams/trip)	0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Draining/Utilities/Sub-Grade (grams/trip)	0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Paving (grams/trip)	0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
<b>Emissions</b>	<b>ROG</b>	<b>CO</b>	<b>NOx</b>	<b>PM10</b>	<b>PM2.5</b>	<b>SOx</b>	<b>CO2</b>	<b>CH4</b>	<b>N2O</b>	<b>CO2e</b>	
Pounds per day - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Pounds per day - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Tons per const. Period - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Pounds per day - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Tons per const. Period - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Total tons per construction project	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

Note: Fugitive dust default values can be overridden in cells D183 through D185.

Fugitive Dust		User Override of Max Acreage Disturbed/Day		PM10	PM10	PM2.5	PM2.5
		Default	Maximum Acreage/Day	pounds/day	tons/period	pounds/day	tons/period
Fugitive Dust - Grubbing/Land Clearing		0.05		0.99	0.00	0.21	0.00
Fugitive Dust - Grading/Excavation		0.05		0.99	0.00	0.21	0.00
Fugitive Dust - Drainage/Utilities/Subgrade		0.05		0.99	0.00	0.21	0.00

Off-Road Equipment Emissions															
Grubbing/Land Clearing		Default Number of Vehicles	Mitigation Option Override of	Default	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e	
Override of Default Number of Vehicles		Program-estimate	Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Equipment Tier	Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	
				Tier 4	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00		1		Tier 4	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00		2		Tier 4	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Other General Industrial Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Other Material Handling Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00		1		Tier 4	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Tractors/Loaders/Backhoes	0.28	7.03	0.57	0.03	0.03	0.01	902.70	0.29	0.01	
				Tier 4	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
<b>User-Defined Off-road Equipment</b>		<b>If non-default vehicles are used, please provide information in "Non-default Off-road Equipment" tab</b>				ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
	Number of Vehicles		Equipment Tier	Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
0.00			N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00			N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00			N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00			N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00			N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00			N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Grubbing/Land Clearing			pounds per day	0.28	7.03	0.57	0.03	0.03	0.01	902.70	0.29	0.01	0.01	912.42
	Grubbing/Land Clearing			tons per phase	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.00	0.00	0.50

Grading/Excavation	Default		Mitigation Option		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
	Number of Vehicles	Override of	Default	Default										
			Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Equipment Tier	Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
Override of Default Number of Vehicles	Program-estimate													
				Tier 4	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0			Tier 4	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	1			Tier 4	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	3			Tier 4	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	2			Tier 4	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Other General Industrial Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Other Material Handling Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	2			Tier 4	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	1			Tier 4	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	2			Tier 4	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	1			Tier 4	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.00	4			Tier 4	Tractors/Loaders/Backhoes	0.28	7.03	0.57	0.03	0.03	0.01	902.70	0.29	0.01
				Tier 4	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Tier 4	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>User-Defined Off-road Equipment</b>					<i>If non-default vehicles are used, please provide information in "Non-default Off-road Equipment" tab</i>									
	Number of Vehicles		Equipment Tier	Type	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
0.00			N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00			N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00			N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00			N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00			N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00			N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Grading/Excavation			pounds per day	0.28	7.03	0.57	0.03	0.03	0.01	902.70	0.29	0.01	912.42
	Grading/Excavation			tons per phase	0.00	0.02	0.00	0.00	0.00	0.00	1.99	0.00	0.00	2.01

Drainage/Utilities/Subgrade		Default Number of Vehicles	Override of Mitigation Option	Default	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Override of Default Number of Vehicles		Program-estimate	Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Equipment Tier	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
0.00	1		Tier 4	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	1		Tier 4	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	1		Tier 4	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Other General Industrial Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Other Material Handling Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	1		Tier 4	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	1		Tier 4	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	1		Tier 4	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	1		Tier 4	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.00	3		Tier 4	Tractors/Loaders/Backhoes	0.28	7.03	0.57	0.03	0.03	0.01	902.70	0.29	0.01	912.42
			Tier 4	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>User-Defined Off-road Equipment</b>					<i>If non-default vehicles are used, please provide information in "Non-default Off-road Equipment" tab</i>									
Number of Vehicles	Equipment Tier	Type	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e		
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	Drainage/Utilities/Sub-Grade	pounds per day	0.28	7.03	0.57	0.03	0.03	0.01	902.70	0.29	0.01	912.42		
	Drainage/Utilities/Sub-Grade	tons per phase	0.00	0.01	0.00	0.00	0.00	0.00	1.74	0.00	0.00	1.75		

Paving	Default		Mitigation Option		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e	
	Number of Vehicles	Override of	Default	Default											
	Override of Default Number of Vehicles	Program-estimate	Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Equipment Tier	Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	
				Tier 4	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Other General Industrial Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Other Material Handling Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	0.00	1		Tier 4	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	0.00	1		Tier 4	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	0.00	2		Tier 4	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	0.00	1		Tier 4	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	3.00	3		Tier 4	Tractors/Loaders/Backhoes	0.28	7.03	0.57	0.03	0.03	0.01	902.70	0.29	912.42	
				Tier 4	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Tier 4	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
<b>User-Defined Off-road Equipment</b>						<b>If non-default vehicles are used, please provide information in "Non-default Off-road Equipment" tab</b>									
	Number of Vehicles		Equipment Tier	Type	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e	
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
		Paving		pounds per day	0.28	7.03	0.57	0.03	0.03	0.01	902.70	0.29	0.01	912.42	
		Paving		tons per phase	0.00	0.01	0.00	0.00	0.00	0.00	0.74	0.00	0.00	0.75	
<b>Total Emissions all Phases (tons per construction period) =&gt;</b>					0.00	0.04	0.00	0.00	0.00	0.00	4.96	0.00	0.00	5.02	

Equipment default values for horsepower and hours/day can be overridden in cells D403 through D436 and F403 through F436.

Equipment	User Override of Horsepower	Default Values Horsepower	User Override of Hours/day	Default Values Hours/day
Aerial Lifts		63		8
Air Compressors		78		8
Bore/Drill Rigs		221		8
Cement and Mortar Mixers		9		8
Concrete/Industrial Saws		81		8
Cranes		231		8
Crawler Tractors		212		8
Crushing/Proc. Equipment		85		8
Excavators		158		8
Forklifts		89		8
Generator Sets		84		8
Graders		187		8
Off-Highway Tractors		124		8
Off-Highway Trucks		402		8
Other Construction Equipment		172		8
Other General Industrial Equipment		88		8
Other Material Handling Equipment		168		8
Pavers		130		8
Paving Equipment		132		8
Plate Compactors		8		8
Pressure Washers		13		8
Pumps		84		8
Rollers		80		8
Rough Terrain Forklifts		100		8
Rubber Tired Dozers		247		8
Rubber Tired Loaders		203		8
Scrapers		367		8
Signal Boards		6		8
Skid Steer Loaders		65		8
Surfacing Equipment		263		8
Sweepers/Scrubbers		64		8
Tractors/Loaders/Backhoes		97		8
Trenchers		78		8
Welders		46		8

END OF DATA ENTRY SHEET



Road Construction Emissions Model, Version 9.0.0

Daily Emission Estimates for ->														
Project Phases (Pounds)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	Total PM10 (lbs/day)	Exhaust PM10 (lbs/day)	Fugitive Dust PM10 (lbs/day)	Total PM2.5 (lbs/day)	Exhaust PM2.5 (lbs/day)	Fugitive Dust PM2.5 (lbs/day)	SOx (lbs/day)	CO2 (lbs/day)	CH4 (lbs/day)	N2O (lbs/day)	CO2e (lbs/day)
Grubbing/Land Clearing	0.63	7.43	6.35	0.87	0.37	0.50	0.43	0.33	0.10	0.01	1,218.14	0.30	0.04	1,236.95
Grading/Excavation	0.91	9.54	9.12	1.02	0.52	0.50	0.52	0.41	0.10	0.02	2,410.45	0.32	0.17	2,468.14
Drainage/Utilities/Sub-Grade	0.70	8.42	6.44	0.91	0.41	0.50	0.45	0.35	0.10	0.02	1,490.71	0.30	0.05	1,511.99
Paving	0.67	7.98	6.40	0.40	0.40	0.00	0.34	0.34	0.00	0.01	1,369.57	0.30	0.04	1,389.75
Maximum (pounds/day)	0.91	9.54	9.12	1.02	0.52	0.50	0.52	0.41	0.10	0.02	2,410.45	0.32	0.17	2,468.14
Total (tons/construction project)	0.00	0.05	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.97	0.00	0.00	10.17

Notes:  
 Project Start Year -> 2021  
 Project Length (months) -> 1  
 Total Project Area (acres) -> 0  
 Maximum Area Disturbed/Day (acres) -> 0  
 Water Truck Used? -> Yes

Phase	Total Material Imported/Exported Volume (yd <sup>3</sup> /day)		Daily VMT (miles/day)			
	Soil	Asphalt	Soil Hauling	Asphalt Hauling	Worker Commute	Water Truck
Grubbing/Land Clearing	0	0	0	0	200	0
Grading/Excavation	60	60	90	90	800	0
Drainage/Utilities/Sub-Grade	0	0	0	0	560	0
Paving	0	0	0	0	400	0

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1, 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

Total Emission Estimates by Phase for ->														
Project Phases (Tons for all except CO2e. Metric tonnes for CO2e)	ROG (tons/phase)	CO (tons/phase)	NOx (tons/phase)	Total PM10 (tons/phase)	Exhaust PM10 (tons/phase)	Fugitive Dust PM10 (tons/phase)	Total PM2.5 (tons/phase)	Exhaust PM2.5 (tons/phase)	Fugitive Dust PM2.5 (tons/phase)	SOx (tons/phase)	CO2 (tons/phase)	CH4 (tons/phase)	N2O (tons/phase)	CO2e (MT/phase)
Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0.00	0.00	0.62
Grading/Excavation	0.00	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.30	0.00	0.00	4.93
Drainage/Utilities/Sub-Grade	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.87	0.00	0.00	2.64
Paving	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.13	0.00	0.00	1.04
Maximum (tons/phase)	0.00	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.30	0.00	0.00	4.93
Total (tons/construction project)	0.00	0.05	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.97	0.00	0.00	9.22

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1, 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

The CO2e emissions are reported as metric tons per phase.

**Road Construction Emissions Model**  
**Data Entry Worksheet**


Note: Required data input sections have a yellow background.  
Optional data input sections have a blue background. Only areas with a yellow or blue background can be modified. Program defaults have a white background.  
The user is required to enter information in cells D10 through D24, E28 through G35, and D38 through D41 for all project types.  
Please use "Clear Data Input & User Overrides" button first before changing the Project Type or begin a new project.

**Input Type**

Project Name	
Construction Start Year	2021
Project Type	2
Project Construction Time	0.50
Working Days per Month	22.00
Predominant Soil/Site Type: Enter 1, 2, or 3 <small>(for project within "Sacramento County", follow soil type selection instructions in cells E18 to E20 otherwise see instructions provided in cells J19 to J22)</small>	1
Project Length	0.02
Total Project Area	0.05
Maximum Area Disturbed/Day	0.05
Water Trucks Used?	2

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To begin a new project, click this button to clear data previously entered. This button will only work if you opted not to disable macros when loading this spreadsheet.



Enter a Year between 2014 and 2040 (inclusive)

1) New Road Construction : Project to build a roadway from bare ground, which generally requires more site preparation than widening an existing roadway  
2) Road Widening : Project to add a new lane to an existing roadway  
3) Bridge/Overpass Construction : Project to build an elevated roadway, which generally requires some different equipment than a new roadway, such as a crane  
4) Other Linear Project Type: Non-roadway project such as a pipeline, transmission line, or levee construction

months  
days (assume 22 if unknown)

1) Sand Gravel : Use for quaternary deposits (Delta/West County)  
2) Weathered Rock-Earth ; Use for Laguna formation (Jackson Highway area) or the lone formation (Scott Road, Rancho Murieta)  
3) Blasted Rock : Use for Salt Springs Slate or Copper Hill Volcanics (Folsom South of Highway 50, Rancho Murieta)

miles  
acres  
acres  
1. Yes  
2. No

Please note that the soil type instructions provided in cells E18 to E20 are specific to Sacramento County. Maps available from the California Geologic Survey (see weblink below) can be used to determine soil type outside Sacramento County.

[http://www.conservation.ca.gov/cgs/information/geologic\\_mapping/E ages/geodetmaps.aspx#thecolseries](http://www.conservation.ca.gov/cgs/information/geologic_mapping/E ages/geodetmaps.aspx#thecolseries)

**Material Hauling Quantity Input**

Material Type	Phase	Haul Truck Capacity (yd <sup>3</sup> ) (assume 20 if unknown)	Import Volume (yd <sup>3</sup> /day)	Export Volume (yd <sup>3</sup> /day)
Soil	Grubbing/Land Clearing	20.00		
	Grading/Excavation	20.00		60.00
	Drainage/Utilities/Sub-Grade	20.00		
	Paving	20.00		
Asphalt	Grubbing/Land Clearing	20.00		
	Grading/Excavation	20.00		60.00
	Drainage/Utilities/Sub-Grade	20.00		
	Paving	20.00		

**Mitigation Options**

On-road Fleet Emissions Mitigation	No Mitigation	Select "2010 and Newer On-road Vehicles Fleet" option when the on-road heavy-duty truck fleet for the project will be limited to vehicles of model year 2010 or newer Select "20% NOx and 45% Exhaust PM reduction" option if the project will be required to use a lower emitting off-road construction fleet. The SMAQMD Construction Mitigation Calculator can be used to confirm compliance with this mitigation measure ( <a href="http://www.airquality.org/Businesses/CEQA-Land-Use-Planning/Mitigation">http://www.airquality.org/Businesses/CEQA-Land-Use-Planning/Mitigation</a> ). Select "Tier 4 Equipment" option if some or all off-road equipment used for the project meets CARB Tier 4 Standard
Off-road Equipment Emissions Mitigation	No Mitigation	

The remaining sections of this sheet contain areas that can be modified by the user, although those modifications are optional.

Note: The program's estimates of construction period phase length can be overridden in cells D50 through D53, and F50 through F53.

Construction Periods	User Override of Construction Months	Program Calculated Months	User Override of Phase Starting Date	Program Default Phase Starting Date
Grubbing/Land Clearing		0.05	9/13/2021	1/1/2021
Grading/Excavation		0.20	9/15/2021	1/2/2021
Drainage/Utilities/Sub-Grade		0.18	9/22/2021	1/10/2021
Paving		0.08	9/28/2021	1/16/2021
<b>Totals (Months)</b>	<b>1</b>			

Note: Soil Hauling emission default values can be overridden in cells D61 through D64, and F61 through F64.

Soil Hauling Emissions		User Override of Miles/Round Trip	Program Estimate of Miles/Round Trip	User Override of Truck Round Trips/Day	Default Values Round Trips/Day	Calculated Daily VMT					
User Input											
Miles/round trip: Grubbing/Land Clearing		30.00			0	0.00					
Miles/round trip: Grading/Excavation		30.00			3	90.00					
Miles/round trip: Drainage/Utilities/Sub-Grade		30.00			0	0.00					
Miles/round trip: Paving		30.00			0	0.00					
<b>Emission Rates</b>		<b>ROG</b>	<b>CO</b>	<b>NOx</b>	<b>PM10</b>	<b>PM2.5</b>	<b>SOx</b>	<b>CO2</b>	<b>CH4</b>	<b>N2O</b>	<b>CO2e</b>
Grubbing/Land Clearing (grams/mile)		0.43	1.14	6.49	0.21	0.15	0.02	1,859.78	0.02	0.29	1,947.39
Grading/Excavation (grams/mile)		0.43	1.14	6.49	0.21	0.15	0.02	1,859.78	0.02	0.29	1,947.39
Drainage/Utilities/Sub-Grade (grams/mile)		0.43	1.14	6.49	0.21	0.15	0.02	1,859.78	0.02	0.29	1,947.39
Paving (grams/mile)		0.43	1.14	6.49	0.21	0.15	0.02	1,859.78	0.02	0.29	1,947.39
Grubbing/Land Clearing (grams/trip)		0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Excavation (grams/trip)		0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drainage/Utilities/Sub-Grade (grams/trip)		0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/trip)		0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Hauling Emissions</b>		<b>ROG</b>	<b>CO</b>	<b>NOx</b>	<b>PM10</b>	<b>PM2.5</b>	<b>SOx</b>	<b>CO2</b>	<b>CH4</b>	<b>N2O</b>	<b>CO2e</b>
Pounds per day - Grubbing/Land Clearing		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grubbing/Land Clearing		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Grading/Excavation		0.08	0.23	1.31	0.04	0.03	0.00	369.01	0.00	0.06	386.39
Tons per const. Period - Grading/Excavation		0.00	0.00	0.00	0.00	0.00	0.00	0.81	0.00	0.00	0.85
Pounds per day - Drainage/Utilities/Sub-Grade		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Paving		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons per construction project		0.00	0.00	0.00	0.00	0.00	0.00	0.81	0.00	0.00	0.85

Note: Asphalt Hauling emission default values can be overridden in cells D91 through D94, and F91 through F94.

Asphalt Hauling Emissions		User Override of Miles/Round Trip	Program Estimate of Miles/Round Trip	User Override of Truck Round Trips/Day	Default Values Round Trips/Day	Calculated Daily VMT					
User Input											
Miles/round trip: Grubbing/Land Clearing		30.00			0	0.00					
Miles/round trip: Grading/Excavation		30.00			3	90.00					
Miles/round trip: Drainage/Utilities/Sub-Grade		30.00			0	0.00					
Miles/round trip: Paving		30.00			0	0.00					
<b>Emission Rates</b>		<b>ROG</b>	<b>CO</b>	<b>NOx</b>	<b>PM10</b>	<b>PM2.5</b>	<b>SOx</b>	<b>CO2</b>	<b>CH4</b>	<b>N2O</b>	<b>CO2e</b>
Grubbing/Land Clearing (grams/mile)		0.43	1.14	6.49	0.21	0.15	0.02	1,859.78	0.02	0.29	1,947.39
Grading/Excavation (grams/mile)		0.43	1.14	6.49	0.21	0.15	0.02	1,859.78	0.02	0.29	1,947.39
Drainage/Utilities/Sub-Grade (grams/mile)		0.43	1.14	6.49	0.21	0.15	0.02	1,859.78	0.02	0.29	1,947.39
Paving (grams/mile)		0.43	1.14	6.49	0.21	0.15	0.02	1,859.78	0.02	0.29	1,947.39
Grubbing/Land Clearing (grams/trip)		0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Excavation (grams/trip)		0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drainage/Utilities/Sub-Grade (grams/trip)		0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/trip)		0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Emissions</b>		<b>ROG</b>	<b>CO</b>	<b>NOx</b>	<b>PM10</b>	<b>PM2.5</b>	<b>SOx</b>	<b>CO2</b>	<b>CH4</b>	<b>N2O</b>	<b>CO2e</b>
Pounds per day - Grubbing/Land Clearing		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grubbing/Land Clearing		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Grading/Excavation		0.08	0.23	1.31	0.04	0.03	0.00	369.01	0.00	0.06	386.39
Tons per const. Period - Grading/Excavation		0.00	0.00	0.00	0.00	0.00	0.00	0.81	0.00	0.00	0.85
Pounds per day - Drainage/Utilities/Sub-Grade		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Paving		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons per construction project		0.00	0.00	0.00	0.00	0.00	0.00	0.81	0.00	0.00	0.85

Note: Worker commute default values can be overridden in cells D121 through D126.

Worker Commute Emissions		User Override of Worker Commute Default Values		Default Values		Calculated	Calculated
User Input						Daily Trips	Daily VMT
Miles/ one-way trip			20				
One-way trips/day			2				
No. of employees: Grubbing/Land Clearing			5			10	200.00
No. of employees: Grading/Excavation			20			40	800.00
No. of employees: Drainage/Utilities/Sub-Grade			14			28	560.00
No. of employees: Paving			10			20	400.00

Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)	0.02	1.10	0.10	0.05	0.02	0.00	339.80	0.00	0.01	342.28
Grading/Excavation (grams/mile)	0.02	1.10	0.10	0.05	0.02	0.00	339.80	0.00	0.01	342.28
Draining/Utilities/Sub-Grade (grams/mile)	0.02	1.10	0.10	0.05	0.02	0.00	339.80	0.00	0.01	342.28
Paving (grams/mile)	0.02	1.10	0.10	0.05	0.02	0.00	339.80	0.00	0.01	342.28
Grubbing/Land Clearing (grams/trip)	1.18	2.95	0.34	0.00	0.00	0.00	72.81	0.08	0.04	85.39
Grading/Excavation (grams/trip)	1.18	2.95	0.34	0.00	0.00	0.00	72.81	0.08	0.04	85.39
Draining/Utilities/Sub-Grade (grams/trip)	1.18	2.95	0.34	0.00	0.00	0.00	72.81	0.08	0.04	85.39
Paving (grams/trip)	1.18	2.95	0.34	0.00	0.00	0.00	72.81	0.08	0.04	85.39
<b>Emissions</b>	<b>ROG</b>	<b>CO</b>	<b>NOx</b>	<b>PM10</b>	<b>PM2.5</b>	<b>SOx</b>	<b>CO2</b>	<b>CH4</b>	<b>N2O</b>	<b>CO2e</b>
Pounds per day - Grubbing/Land Clearing	0.03	0.55	0.05	0.02	0.01	0.00	151.43	0.00	0.00	152.90
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.08
Pounds per day - Grading/Excavation	0.14	2.20	0.20	0.08	0.03	0.01	605.72	0.02	0.02	611.21
Tons per const. Period - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	1.33	0.00	0.00	1.34
Pounds per day - Drainage/Utilities/Sub-Grade	0.10	1.54	0.14	0.06	0.02	0.00	424.00	0.01	0.01	427.85
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.82	0.00	0.00	0.82
Pounds per day - Paving	0.07	1.10	0.10	0.04	0.02	0.00	302.86	0.01	0.01	305.60
Tons per const. Period - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.25
Total tons per construction project	0.00	0.01	0.00	0.00	0.00	0.00	2.48	0.00	0.00	2.50

Note: Water Truck default values can be overridden in cells D153 through D156, I153 through I156, and F153 through F156.

Water Truck Emissions		User Override of Default # Water Trucks	Program Estimate of Number of Water Trucks	User Override of Round Trips/Vehicle/Day	Default Values Round Trips/Vehicles/Day	Calculated Trips/day	User Override of Miles/Round Trip	Default Values Miles/Round Trip	Calculated Daily VMT
Grubbing/Land Clearing - Exhaust		0	0		5	0		8.00	0.00
Grading/Excavation - Exhaust		0	0		5	0		8.00	0.00
Drainage/Utilities/Subgrade		0	0		5	0		8.00	0.00
Paving		0	0		5	0		8.00	0.00

Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)	0.43	1.14	6.49	0.21	0.15	0.02	1,859.78	0.02	0.29	1,947.39
Grading/Excavation (grams/mile)	0.43	1.14	6.49	0.21	0.15	0.02	1,859.78	0.02	0.29	1,947.39
Draining/Utilities/Sub-Grade (grams/mile)	0.43	1.14	6.49	0.21	0.15	0.02	1,859.78	0.02	0.29	1,947.39
Paving (grams/mile)	0.43	1.14	6.49	0.21	0.15	0.02	1,859.78	0.02	0.29	1,947.39
Grubbing/Land Clearing (grams/trip)	0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Excavation (grams/trip)	0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Draining/Utilities/Sub-Grade (grams/trip)	0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/trip)	0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Emissions</b>	<b>ROG</b>	<b>CO</b>	<b>NOx</b>	<b>PM10</b>	<b>PM2.5</b>	<b>SOx</b>	<b>CO2</b>	<b>CH4</b>	<b>N2O</b>	<b>CO2e</b>
Pounds per day - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons per construction project	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Note: Fugitive dust default values can be overridden in cells D183 through D185.

Fugitive Dust	User Override of Max Acreage Disturbed/Day	Default Maximum Acreage/Day	PM10 pounds/day	PM10 tons/period	PM2.5 pounds/day	PM2.5 tons/period
Fugitive Dust - Grubbing/Land Clearing		0.05	0.99	0.00	0.21	0.00
Fugitive Dust - Grading/Excavation		0.05	0.99	0.00	0.21	0.00
Fugitive Dust - Drainage/Utilities/Subgrade		0.05	0.99	0.00	0.21	0.00

Off-Road Equipment Emissions															
Grubbing/Land Clearing		Default Number of Vehicles	Mitigation Option Override of	Default	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e	
Override of Default Number of Vehicles		Program-estimate	Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Equipment Tier	Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	
				Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00		1		Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00		2		Model Default Tier	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Other General Industrial Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Other Material Handling Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00		1		Model Default Tier	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Tractors/Loaders/Backhoes	0.56	6.78	5.69	0.34	0.31	0.01	902.70	0.29	0.01	912.42
				Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>User-Defined Off-road Equipment</b>					<b>If non-default vehicles are used, please provide information in "Non-default Off-road Equipment" tab</b>										
Number of Vehicles		Equipment Tier	Type	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e		
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	Grubbing/Land Clearing		pounds per day	0.56	6.78	5.69	0.34	0.31	0.01	902.70	0.29	0.01	912.42		
	Grubbing/Land Clearing		tons per phase	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.00	0.50		

Grading/Excavation	Default		Mitigation Option		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
	Number of Vehicles	Override of	Default	Default										
	Override of Default Number of Vehicles	Program-estimate	Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Equipment Tier	Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
				Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0		Model Default Tier	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	1		Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	3		Model Default Tier	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	2		Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Other General Industrial Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Other Material Handling Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	2		Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	1		Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	2		Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	1		Model Default Tier	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3.00	4		Model Default Tier	Tractors/Loaders/Backhoes	0.56	6.78	5.69	0.34	0.31	0.01	902.70	0.29	0.01
				Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>User-Defined Off-road Equipment</b>														
If non-default vehicles are used, please provide information in "Non-default Off-road Equipment" tab														
	Number of Vehicles			Equipment Tier	Type	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	CO2e
	0.00			N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00			N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00			N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00			N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00			N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00			N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
					Grading/Excavation	pounds per day	0.56	6.78	5.69	0.34	0.31	0.01	902.70	0.29
					Grading/Excavation	tons per phase	0.00	0.01	0.01	0.00	0.00	0.00	1.99	0.00
													0.01	912.42
													0.00	2.01

Drainage/Utilities/Subgrade	Default		Mitigation Option		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
	Number of Vehicles	Override of	Default	Default										
Override of Default Number of Vehicles	Program-estimate	Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Equipment Tier		pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
0.00	1		Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	1		Model Default Tier	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	1		Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other General Industrial Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Material Handling Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	1		Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	1		Model Default Tier	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	1		Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	1		Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	1		Model Default Tier	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.00	3		Model Default Tier	Tractors/Loaders/Backhoes	0.56	6.78	5.69	0.34	0.31	0.01	902.70	0.29	0.01	912.42
			Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>User-Defined Off-road Equipment</b>					<b>If non-default vehicles are used, please provide information in "Non-default Off-road Equipment" tab</b>									
Number of Vehicles		Equipment Tier	Type	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e	
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	Drainage/Utilities/Sub-Grade		pounds per day	0.56	6.78	5.69	0.34	0.31	0.01	902.70	0.29	0.01	912.42	
	Drainage/Utilities/Sub-Grade		tons per phase	0.00	0.01	0.01	0.00	0.00	0.00	1.74	0.00	0.00	1.75	

Paving	Default		Mitigation Option		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
	Number of Vehicles	Override of	Default	Default										
	Override of Default Number of Vehicles	Program-estimate	Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Equipment Tier										
			Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other General Industrial Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Material Handling Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		1	Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		1	Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		2	Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		1	Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.00		3	Model Default Tier	Tractors/Loaders/Backhoes	0.56	6.78	5.69	0.34	0.31	0.01	902.70	0.29	0.01	912.42
			Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>User-Defined Off-road Equipment</b>					<b>If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab</b>									
	Number of Vehicles		Equipment Tier	Type	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
	0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Paving		pounds per day	0.56	6.78	5.69	0.34	0.31	0.01	902.70	0.29	0.01	912.42
		Paving		tons per phase	0.00	0.01	0.00	0.00	0.00	0.00	0.74	0.00	0.00	0.75
<b>Total Emissions all Phases (tons per construction period) =&gt;</b>					0.00	0.04	0.03	0.00	0.00	0.00	4.96	0.00	0.00	5.02



Equipment default values for horsepower and hours/day can be overridden in cells D403 through D436 and F403 through F436.

Equipment	User Override of Horsepower	Default Values Horsepower	User Override of Hours/day	Default Values Hours/day
Aerial Lifts		63		8
Air Compressors		78		8
Bore/Drill Rigs		221		8
Cement and Mortar Mixers		9		8
Concrete/Industrial Saws		81		8
Cranes		231		8
Crawler Tractors		212		8
Crushing/Proc. Equipment		85		8
Excavators		158		8
Forklifts		89		8
Generator Sets		84		8
Graders		187		8
Off-Highway Tractors		124		8
Off-Highway Trucks		402		8
Other Construction Equipment		172		8
Other General Industrial Equipment		88		8
Other Material Handling Equipment		168		8
Pavers		130		8
Paving Equipment		132		8
Plate Compactors		8		8
Pressure Washers		13		8
Pumps		84		8
Rollers		80		8
Rough Terrain Forklifts		100		8
Rubber Tired Dozers		247		8
Rubber Tired Loaders		203		8
Scrapers		367		8
Signal Boards		6		8
Skid Steer Loaders		65		8
Surfacing Equipment		263		8
Sweepers/Scrubbers		64		8
Tractors/Loaders/Backhoes		97		8
Trenchers		78		8
Welders		46		8

END OF DATA ENTRY SHEET



## Operational Analysis



**Estimated Criteria Pollutant Emissions During Operation**

	ROG	NOx	CO	SO2	PM10	PM2.5
<b>Phase 1</b>						
Area	35	5	58	0	1	1
Energy	0	2	1	0	0	0
Mobile	5	33	112	1	49	13
Stationary	0	1	1	0	0	0
<b>Total</b>	<b>41</b>	<b>41</b>	<b>172</b>	<b>1</b>	<b>50</b>	<b>14</b>
<b>Project</b>						
Area	50	13	85	0	1	1
Energy	0	2	1	0	0	0
Mobile	7	44	139	1	69	19
Stationary	0	1	1	0	0	0
<b>Total</b>	<b>58</b>	<b>61</b>	<b>226</b>	<b>1</b>	<b>71</b>	<b>21</b>

**Estimated GHG Emissions During Operation**

	CO2	CH4	N2O	CO2e
<b>Project</b>				
Area	89	0	0	89
Energy	838	0	0	846
Mobile	11,219	0	1	11,410
Stationary	1	0	0	1
Waste	97	6	0	239
Water	36.772	1.702	0.041	91.431
Sequestration				-472
<b>Total</b>	<b>12,089</b>	<b>8</b>	<b>1</b>	<b>12,205</b>

**Estimated Unmitigated Criteria Pollutant Emissions Construction + Operation (Phase 1)**

	ROG	NOx	CO	PM10	PM2.5
Construction	66	30	41	10	3
Operation	41	41	172	50	14
<b>Total</b>	<b>108</b>	<b>71</b>	<b>213</b>	<b>60</b>	<b>17</b>

**Estimated Mitigated Criteria Pollutant Emissions During Operation**

	ROG	NOx	CO	SO2	PM10	PM2.5
<b>Phase 1</b>						
Area	29	5	58	0	1	1
Energy	0	2	1	0	0	0
Mobile	5	33	112	1	49	13
Stationary	0	1	1	0	0	0
<b>Total</b>	<b>35</b>	<b>41</b>	<b>172</b>	<b>1</b>	<b>50</b>	<b>14</b>
<b>Project</b>						
Area	41	13	85	0	1	1
Energy	0	2	1	0	0	0
Mobile	7	44	139	1	69	19
Stationary	0	1	1	0	0	0
<b>Total</b>	<b>48</b>	<b>61</b>	<b>226</b>	<b>1</b>	<b>71</b>	<b>21</b>

**Estimated Mitigated Criteria Pollutant Emissions Construction + Operation (Phase 1)**

	ROG	NOx	CO	PM10	PM2.5
Construction	7	4	46	7	2
Operation	35	41	172	50	14
<b>Total</b>	<b>42</b>	<b>45</b>	<b>217</b>	<b>57</b>	<b>16</b>

**Energy (Including Water and Battery Generators)**

	<u>Annual kWh</u>	<u>Annual MBTU</u>	<u>Annual Therms</u>
Existing	0	0	0
Project	9,213,255	31,437	314,369

**Natural Gas**

	<u>Annual kBTU</u>	<u>Annual MBTU</u>	<u>Annual Therms</u>
Existing	0	0	0
Project	8,557,672	8,558	85,577

**Water**

	<u>Annual Mgal Indoor</u>	<u>Annual Mgal Outdoor</u>	<u>Annual Mgal Total</u>	<u>Annual kwh</u>
Existing	0	0	0	0
Project	52	41	93	1,211,788

**Fuel**

	<u>Gasoline (gal/year)</u>	<u>Diesel (gal/year)</u>
Existing	0	0
Project	951,296	310,029

Source: CalEEMod, EMFAC. See AQ Appendix

**Conversions**

kwh per Mgal	13,021	CalEEMod
MBTU per therm	1.00E+01	Standard
BTU per kwh	3412.14	Standard

Station East - Phase 1 Operation - Alameda County, Summer

**Station East - Phase 1 Operation  
Alameda County, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	1,124.00	Space	5.12	449,600.00	0
Parking Lot	214.00	Space	0.98	85,600.00	0
Apartments Mid Rise	683.00	Dwelling Unit	14.57	1,278,379.00	1953
Regional Shopping Center	30.77	1000sqft	0.35	30,770.00	0

**1.2 Other Project Characteristics**

Urbanization Urban Wind Speed (m/s) 2.2 Precipitation Freq (Days) 63  
 Climate Zone 5 Operational Year 2023

Utility Company Pacific Gas & Electric Company

CO2 Intensity 147 CH4 Intensity 0.029 N2O Intensity 0.003

**1.3 User Entered Comments & Non-Default Data**

- Project Characteristics - Adjusted for 2023
- Land Use - lot acreage scaled by sf; land use amounts per applicant
- Construction Phase - operational analysis only
- Off-road Equipment -
- Grading -
- Vehicle Trips - VMT modeled separately
- Woodstoves - assumed all default fireplaces to be gas; assumed no woodstoves
- Energy Use -
- Land Use Change - vegetation acreages provided by applicant
- Sequestration - net new trees inputted
- Area Mitigation - assumed extremely compliant VOC paint and green consumer products
- Water Mitigation -
- Operational Off-Road Equipment -

Stationary Sources - Emergency Generators and Fire Pumps - provided by applicant

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExterio	150	10
tblAreaMitigation	UseLowVOCPaintNonresidentialInterior	100	10
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	150	10
tblAreaMitigation	UseLowVOCPaintResidentialExteriorVa	150	10
tblAreaMitigation	UseLowVOCPaintResidentialInteriorVal	100	10
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	102.45	218.56
tblFireplaces	NumberWood	116.11	0.00
tblLandUse	LandUseSquareFeet	683,000.00	1,278,379.00
tblLandUse	LotAcreage	10.12	5.12
tblLandUse	LotAcreage	1.93	0.98
tblLandUse	LotAcreage	17.97	14.57
tblLandUse	LotAcreage	0.71	0.35
tblProjectCharacteristics	CO2IntensityFactor	641.35	147
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblSequestration	NumberOfNewTrees	0.00	641.00
tblVehicleTrips	ST_TR	6.39	0.00
tblVehicleTrips	ST_TR	49.97	0.00
tblVehicleTrips	SU_TR	5.86	0.00
tblVehicleTrips	SU_TR	25.24	0.00
tblVehicleTrips	WD_TR	6.65	0.00
tblVehicleTrips	WD_TR	42.70	0.00
tblWoodstoves	NumberCatalytic	13.66	0.00
tblWoodstoves	NumberNoncatalytic	13.66	0.00
tblWoodstoves	WoodstoveDayYear	14.12	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

**2.0 Emissions Summary**

**2.2 Overall Operational**

**Unmitigated Operational**

Category	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Area	35.4913	4.8807	58.3006	0.0300		0.6544	0.6544		0.6544	0.6544	0.0000	5,501.478	5,501.4784	0.2019	0.0990	5,536.025
Energy	0.1804	1.5436	0.6726	9.8400e-		0.1246	0.1246		0.1246	0.1246		1,967.582	1,967.5828	0.0377	0.0361	1,979.275
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Stationary	0.3303	1.4769	0.8421	1.5900e-		0.0486	0.0486		0.0486	0.0486		168.9522	168.9522	0.0237		169.5444
<b>Total</b>	<b>36.0019</b>	<b>7.9012</b>	<b>59.8153</b>	<b>0.0414</b>	<b>0.0000</b>	<b>0.8276</b>	<b>0.8276</b>	<b>0.0000</b>	<b>0.8276</b>	<b>0.8276</b>	<b>0.0000</b>	<b>7,638.013</b>	<b>7,638.0135</b>	<b>0.2633</b>	<b>0.1351</b>	<b>7,684.844</b>



## Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	28.7668	4.8807	58.3006	0.0300		0.6544	0.6544		0.6544	0.6544	0.0000	5,501.478	5,501.4784	0.2019	0.0990	5,536.025
Energy	0.1804	1.5436	0.6726	9.8400e-		0.1246	0.1246		0.1246	0.1246		1,967.582	1,967.5828	0.0377	0.0361	1,979.275
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Stationary	0.3303	1.4769	0.8421	1.5900e-		0.0486	0.0486		0.0486	0.0486		168.9522	168.9522	0.0237		169.5444
<b>Total</b>	<b>29.2774</b>	<b>7.9012</b>	<b>59.8153</b>	<b>0.0414</b>	<b>0.0000</b>	<b>0.8276</b>	<b>0.8276</b>	<b>0.0000</b>	<b>0.8276</b>	<b>0.8276</b>	<b>0.0000</b>	<b>7,638.013</b>	<b>7,638.0135</b>	<b>0.2633</b>	<b>0.1351</b>	<b>7,684.844</b>

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-CO2	Total	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>18.68</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

## 5.0 Energy Detail

Historical Energy Use: N

### 5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1804	1.5436	0.6726	9.8400e-003		0.1246	0.1246		0.1246	0.1246		1,967.5828	1,967.5828	0.0377	0.0361	1,979.2752
NaturalGas Unmitigated	0.1804	1.5436	0.6726	9.8400e-003		0.1246	0.1246		0.1246	0.1246		1,967.5828	1,967.5828	0.0377	0.0361	1,979.2752

### 5.2 Energy by Land Use - NaturalGas Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	16336.7	0.1762	1.5055	0.6407	9.6100e-003		0.1217	0.1217		0.1217	0.1217		1,921.9609	1,921.9609	0.0368	0.0352	1,933.3822
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	387.786	4.1800e-003	0.0380	0.0319	2.3000e-004	2.8900e-003	2.8900e-003	2.8900e-003	2.8900e-003	2.8900e-003	2.8900e-003		45.6219	45.6219	8.7000e-004	8.4000e-004	45.8930
<b>Total</b>		<b>0.1804</b>	<b>1.5436</b>	<b>0.6726</b>	<b>9.8400e-003</b>		<b>0.1246</b>	<b>0.1246</b>		<b>0.1246</b>	<b>0.1246</b>		<b>1,967.5828</b>	<b>1,967.5828</b>	<b>0.0377</b>	<b>0.0361</b>	<b>1,979.2752</b>

**Mitigated**

	NaturalGa	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	16.3367	0.1762	1.5055	0.6407	9.6100e-003		0.1217	0.1217		0.1217	0.1217		1,921.9609	1,921.9609	0.0368	0.0352	1,933.3822
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0.387786	4.1800e-003	0.0380	0.0319	2.3000e-004		2.8900e-003	2.8900e-003		2.8900e-003	2.8900e-003		45.6219	45.6219	8.7000e-004	8.4000e-004	45.8930
<b>Total</b>		<b>0.1804</b>	<b>1.5436</b>	<b>0.6726</b>	<b>9.8400e-003</b>		<b>0.1246</b>	<b>0.1246</b>		<b>0.1246</b>	<b>0.1246</b>		<b>1,967.5828</b>	<b>1,967.5828</b>	<b>0.0377</b>	<b>0.0361</b>	<b>1,979.2752</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	28.7668	4.8807	58.3006	0.0300		0.6544	0.6544		0.6544	0.6544	0.0000	5,501.4784	5,501.4784	0.2019	0.0990	5,536.0251
Unmitigated	35.4913	4.8807	58.3006	0.0300		0.6544	0.6544		0.6544	0.6544	0.0000	5,501.4784	5,501.4784	0.2019	0.0990	5,536.0251

**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	5.0801					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	28.2054					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.4950	4.2298	1.7999	0.0270		0.3420	0.3420		0.3420	0.3420	0.0000	5,399.7177	5,399.7177	0.1035	0.0990	5,431.8055

Landscaping	1.7109	0.6510	56.5007	2.9900e-003		0.3125	0.3125		0.3125	0.3125		101.7608	101.7608	0.0984		104.2196
<b>Total</b>	<b>35.4913</b>	<b>4.8807</b>	<b>58.3006</b>	<b>0.0300</b>		<b>0.6544</b>	<b>0.6544</b>		<b>0.6544</b>	<b>0.6544</b>	<b>0.0000</b>	<b>5,501.4784</b>	<b>5,501.4784</b>	<b>0.2018</b>	<b>0.0990</b>	<b>5,536.0251</b>

### Mitigated

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4502					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	26.1107					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.4950	4.2298	1.7999	0.0270		0.3420	0.3420		0.3420	0.3420	0.0000	5,399.7177	5,399.7177	0.1035	0.0990	5,431.8055
Landscaping	1.7109	0.6510	56.5007	2.9900e-003		0.3125	0.3125		0.3125	0.3125		101.7608	101.7608	0.0984		104.2196
<b>Total</b>	<b>28.7668</b>	<b>4.8807</b>	<b>58.3006</b>	<b>0.0300</b>		<b>0.6544</b>	<b>0.6544</b>		<b>0.6544</b>	<b>0.6544</b>	<b>0.0000</b>	<b>5,501.4784</b>	<b>5,501.4784</b>	<b>0.2018</b>	<b>0.0990</b>	<b>5,536.0251</b>

## 10.0 Stationary Equipment

### Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0.25	3	805	0.73	Diesel

## 10.1 Stationary Sources

### Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Emergency Generator - Diesel	0.3303	1.4769	0.8421	1.5900e-003		0.0486	0.0486		0.0486	0.0486		168.9522	168.9522	0.0237		169.5444
<b>Total</b>	<b>0.3303</b>	<b>1.4769</b>	<b>0.8421</b>	<b>1.5900e-003</b>		<b>0.0486</b>	<b>0.0486</b>		<b>0.0486</b>	<b>0.0486</b>		<b>168.9522</b>	<b>168.9522</b>	<b>0.0237</b>		<b>169.5444</b>

Station East - Phase 1 Operation - Alameda County, Annual

**Station East - Phase 1 Operation  
Alameda County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	1,124.00	Space	5.12	449,600.00	0
Parking Lot	214.00	Space	0.98	85,600.00	0
Apartments Mid Rise	683.00	Dwelling Unit	14.57	1,278,379.00	1953
Regional Shopping Center	30.77	1000sqft	0.35	30,770.00	0

**1.2 Other Project Characteristics**

Urbanization Urban Wind Speed (m/s) 2.2 Precipitation Freq (Days) 63  
 Climate Zone 5 Operational Year 2023

Utility Company Pacific Gas & Electric Company

CO2 Intensity 147 CH4 Intensity 0.029 N2O Intensity 0.003

**1.3 User Entered Comments & Non-Default Data**

- Project Characteristics - Adjusted for 2023
- Land Use - lot acreage scaled by sf; land use amounts per applicant
- Construction Phase - operational analysis only
- Off-road Equipment -
- Grading -
- Vehicle Trips - VMT modeled separately
- Woodstoves - assumed all default fireplaces to be gas; assumed no woodstoves
- Energy Use -
- Land Use Change - vegetation acreages provided by applicant
- Sequestration - net new trees inputted
- Area Mitigation - assumed extremely compliant VOC paint and green consumer products
- Water Mitigation -
- Operational Off-Road Equipment -

Stationary Sources - Emergency Generators and Fire Pumps - provided by applicant

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExterior	150	10
tblAreaMitigation	UseLowVOCPaintNonresidentialInterior	100	10
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	150	10
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	150	10
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	100	10
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	102.45	218.56
tblFireplaces	NumberWood	116.11	0.00
tblLandUse	LandUseSquareFeet	683,000.00	1,278,379.00
tblLandUse	LotAcreage	10.12	5.12
tblLandUse	LotAcreage	1.93	0.98
tblLandUse	LotAcreage	17.97	14.57
tblLandUse	LotAcreage	0.71	0.35
tblProjectCharacteristics	CO2IntensityFactor	641.35	147
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblSequestration	NumberOfNewTrees	0.00	641.00
tblVehicleTrips	ST_TR	6.39	0.00
tblVehicleTrips	ST_TR	49.97	0.00
tblVehicleTrips	SU_TR	5.86	0.00
tblVehicleTrips	SU_TR	25.24	0.00
tblVehicleTrips	WD_TR	6.65	0.00
tblVehicleTrips	WD_TR	42.70	0.00
tblWoodstoves	NumberCatalytic	13.66	0.00
tblWoodstoves	NumberNoncatalytic	13.66	0.00
tblWoodstoves	WoodstoveDayYear	14.12	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

## 2.0 Emissions Summary

### 2.1 Overall Construction

### 2.2 Overall Operational

#### Unmitigated Operational

Category	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Area	6.2313	0.0822	5.0951	4.2000e-004		0.0300	0.0300		0.0300	0.0300	0.0000	35.5933	35.5933	8.5500e-003	5.0000e-004	35.9562
Energy	0.0329	0.2817	0.1228	1.8000e-003		0.0227	0.0227		0.0227	0.0227	0.0000	711.5068	711.5068	0.0823	0.0138	717.6911



Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	385.7514	385.7514	0.0761	7.8700e-003	389.9999
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	385.7514	385.7514	0.0761	7.8700e-003	389.9999
NaturalGas Mitigated	0.0329	0.2817	0.1228	1.8000e-003		0.0227	0.0227		0.0227	0.0227	0.0000	325.7554	325.7554	6.2400e-003	5.9700e-003	327.6912
NaturalGas Unmitigated	0.0329	0.2817	0.1228	1.8000e-003		0.0227	0.0227		0.0227	0.0227	0.0000	325.7554	325.7554	6.2400e-003	5.9700e-003	327.6912

## 5.2 Energy by Land Use - NaturalGas

### Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	5.96288e+006	0.0322	0.2748	0.1169	1.7500e-003		0.0222	0.0222		0.0222	0.0222	0.0000	318.2022	318.2022	6.1000e-003	5.8300e-003	320.0931
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	141542	7.6000e-004	6.9400e-003	5.8300e-003	4.0000e-005		5.3000e-004	5.3000e-004		5.3000e-004	5.3000e-004	0.0000	7.5532	7.5532	1.4000e-004	1.4000e-004	7.5981
<b>Total</b>		<b>0.0329</b>	<b>0.2817</b>	<b>0.1228</b>	<b>1.7900e-003</b>		<b>0.0227</b>	<b>0.0227</b>		<b>0.0227</b>	<b>0.0227</b>	<b>0.0000</b>	<b>325.7554</b>	<b>325.7554</b>	<b>6.2400e-003</b>	<b>5.9700e-003</b>	<b>327.6912</b>

### Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	5.96288e+006	0.0322	0.2748	0.1169	1.7500e-003		0.0222	0.0222		0.0222	0.0222	0.0000	318.2022	318.2022	6.1000e-003	5.8300e-003	320.0931
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	141542	7.6000e-004	6.9400e-003	5.8300e-003	4.0000e-005		5.3000e-004	5.3000e-004		5.3000e-004	5.3000e-004	0.0000	7.5532	7.5532	1.4000e-004	1.4000e-004	7.5981

Total		0.0329	0.2817	0.1228	1.7900e-003		0.0227	0.0227		0.0227	0.0227	0.0000	325.7554	325.7554	6.2400e-003	5.9700e-003	327.6912
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### 5.3 Energy by Land Use - Electricity

#### Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	2.88362e+006	192.2742	0.0379	3.9200e-003	194.3918
Enclosed Parking Structure	2.54923e+006	169.9779	0.0335	3.4700e-003	171.8500
Parking Lot	29960	1.9977	3.9000e-004	4.0000e-005	2.0197
Regional Shopping Center	322470	21.5017	4.2400e-003	4.4000e-004	21.7385
<b>Total</b>		<b>385.7514</b>	<b>0.0761</b>	<b>7.8700e-003</b>	<b>389.9999</b>

#### Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	2.88362e+006	192.2742	0.0379	3.9200e-003	194.3918
Enclosed Parking Structure	2.54923e+006	169.9779	0.0335	3.4700e-003	171.8500
Parking Lot	29960	1.9977	3.9000e-004	4.0000e-005	2.0197
Regional Shopping Center	322470	21.5017	4.2400e-003	4.4000e-004	21.7385





Hearth	2.7600e-003	0.0236	0.0100	1.5000e-004		1.9000e-003	1.9000e-003		1.9000e-003	1.9000e-003	0.0000	27.2849	27.2849	5.2000e-004	5.0000e-004	27.4470
Landscaping	0.1540	0.0586	5.0851	2.7000e-004		0.0281	0.0281		0.0281	0.0281	0.0000	8.3084	8.3084	8.0300e-003	0.0000	8.5092
<b>Total</b>	<b>6.2313</b>	<b>0.0822</b>	<b>5.0951</b>	<b>4.2000e-004</b>		<b>0.0300</b>	<b>0.0300</b>		<b>0.0300</b>	<b>0.0300</b>	<b>0.0000</b>	<b>35.5933</b>	<b>35.5933</b>	<b>8.5500e-003</b>	<b>5.0000e-004</b>	<b>35.9562</b>

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	tons/yr										MT/yr						
Architectural Coating	0.0822					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.7652					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	2.7600e-003	0.0236	0.0100	1.5000e-004		1.9000e-003	1.9000e-003		1.9000e-003	1.9000e-003	0.0000	27.2849	27.2849	5.2000e-004	5.0000e-004	27.4470	
Landscaping	0.1540	0.0586	5.0851	2.7000e-004		0.0281	0.0281		0.0281	0.0281	0.0000	8.3084	8.3084	8.0300e-003	0.0000	8.5092	
<b>Total</b>	<b>5.0041</b>	<b>0.0822</b>	<b>5.0951</b>	<b>4.2000e-004</b>		<b>0.0300</b>	<b>0.0300</b>		<b>0.0300</b>	<b>0.0300</b>	<b>0.0000</b>	<b>35.5933</b>	<b>35.5933</b>	<b>8.5500e-003</b>	<b>5.0000e-004</b>	<b>35.9562</b>	

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	31.8289	1.2234	0.0292	71.1154

Unmitigated	38.5919	1.5290	0.0365	87.6869
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## 7.2 Water by Land Use

### Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	44.5002 / 28.0545	36.7205	1.4545	0.0347	83.4235
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	2.27921 / 1.39694	1.8714	0.0745	1.7800e-003	4.2634
<b>Total</b>		<b>38.5919</b>	<b>1.5290</b>	<b>0.0365</b>	<b>87.6869</b>

### Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	35.6002 / 26.3432	30.2864	1.1638	0.0278	67.6589
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	1.82337 / 1.31172	1.5425	0.0596	1.4200e-003	3.4565
<b>Total</b>		<b>31.8289</b>	<b>1.2234</b>	<b>0.0292</b>	<b>71.1154</b>

## 8.0 Waste Detail

## 8.1 Mitigation Measures Waste

### Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	70.3343	4.1566	0.0000	174.2504
Unmitigated	70.3343	4.1566	0.0000	174.2504

## 8.2 Waste by Land Use

### Unmitigated

	Waste	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid	314.18	63.7757	3.7690	0.0000	158.0016
Enclosed Parking	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional	32.31	6.5586	0.3876	0.0000	16.2488
<b>Total</b>		<b>70.3343</b>	<b>4.1566</b>	<b>0.0000</b>	<b>174.2504</b>

### Mitigated

	Waste	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid	314.18	63.7757	3.7690	0.0000	158.0016
Enclosed Parking	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional	32.31	6.5586	0.3876	0.0000	16.2488
<b>Total</b>		<b>70.3343</b>	<b>4.1566</b>	<b>0.0000</b>	<b>174.2504</b>

## 10.0 Stationary Equipment

### Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0.25	3	805	0.73	Diesel

## 10.1 Stationary Sources

**Unmitigated/Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (750 - 9999 HP)	1.9800e-003	8.8600e-003	5.0500e-003	1.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004	0.0000	0.9196	0.9196	1.3000e-004	0.0000	0.9229
<b>Total</b>	<b>1.9800e-003</b>	<b>8.8600e-003</b>	<b>5.0500e-003</b>	<b>1.0000e-005</b>		<b>2.9000e-004</b>	<b>2.9000e-004</b>		<b>2.9000e-004</b>	<b>2.9000e-004</b>	<b>0.0000</b>	<b>0.9196</b>	<b>0.9196</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>0.9229</b>

Station East Operation - Alameda County, Summer

**Station East Operation  
Alameda County, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	1,124.00	Space	5.12	449,600.00	0
Enclosed Parking Structure	454.00	Space	1.41	181,600.00	0
Parking Lot	214.00	Space	0.98	85,600.00	0
Apartments Mid Rise	683.00	Dwelling Unit	14.57	1,278,379.00	1953
Apartments Mid Rise	281.00	Dwelling Unit	4.07	525,951.00	804
Regional Shopping Center	30.77	1000sqft	0.35	30,770.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	63
<b>Climate Zone</b>	5			<b>Operational Year</b>	2025
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity</b>	105	<b>CH4 Intensity</b>	0.027	<b>N2O Intensity</b>	0.003

**1.3 User Entered Comments & Non-Default Data**

- Project Characteristics - Efs adjusted for 2025
- Land Use - lot acreage scaled by sf; land use amounts per applicant
- Construction Phase - operational analysis only
- Off-road Equipment - operational analysis only
- Grading - operational analysis only
- Demolition - operational analysis only
- Trips and VMT - operational analysis only
- Architectural Coating - operational analysis only
- Vehicle Trips - mobile sources evaluated separately
- Woodstoves - assumed all default fireplaces to be gas; assumed no woodstoves
- Energy Use -

Stationary Sources - Emergency Generators and Fire Pumps - provided by applicant  
 Land Use Change -  
 Area Mitigation - assumed extremely compliant VOC paint and green consumer products  
 Water Mitigation - assumed compliance with CalGreen

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	15,385.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	46,155.00	0.00
tblArchitecturalCoating	ConstArea_Parking	43,008.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	1,217,923.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Interior	3,653,768.00	0.00
tblAreaMitigation	UseLowVOCPaintNonresidentialExterio	150	10
tblAreaMitigation	UseLowVOCPaintNonresidentialInterior	100	10
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	150	10
tblAreaMitigation	UseLowVOCPaintResidentialExteriorVa	150	10
tblAreaMitigation	UseLowVOCPaintResidentialInteriorVal	100	10
tblConstructionPhase	NumDays	35.00	0.00
tblConstructionPhase	NumDays	440.00	0.00
tblConstructionPhase	NumDays	30.00	0.00
tblConstructionPhase	NumDays	45.00	0.00
tblConstructionPhase	NumDays	35.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	PhaseEndDate	9/30/2022	8/12/2022
tblConstructionPhase	PhaseEndDate	6/24/2022	10/16/2020
tblConstructionPhase	PhaseEndDate	7/17/2020	6/7/2020
tblConstructionPhase	PhaseEndDate	10/16/2020	8/14/2020
tblConstructionPhase	PhaseEndDate	8/12/2022	6/24/2022
tblConstructionPhase	PhaseEndDate	8/14/2020	7/17/2020
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	144.60	308.48
tblFireplaces	NumberWood	163.88	0.00
tblLandUse	LandUseSquareFeet	683,000.00	1,278,379.00
tblLandUse	LandUseSquareFeet	281,000.00	525,951.00
tblLandUse	LotAcreage	10.12	5.12
tblLandUse	LotAcreage	4.09	1.41
tblLandUse	LotAcreage	1.93	0.98
tblLandUse	LotAcreage	17.97	14.57
tblLandUse	LotAcreage	7.39	4.07
tblLandUse	LotAcreage	0.71	0.35
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.027
tblProjectCharacteristics	CO2IntensityFactor	641.35	105
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003

tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	805.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.25
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	3.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	VendorTripNumber	226.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	0.00
tblTripsAndVMT	WorkerTripNumber	1,005.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	201.00	0.00
tblVehicleTrips	ST_TR	6.39	0.00
tblVehicleTrips	ST_TR	49.97	0.00
tblVehicleTrips	SU_TR	5.86	0.00
tblVehicleTrips	SU_TR	25.24	0.00
tblVehicleTrips	WD_TR	6.65	0.00
tblVehicleTrips	WD_TR	42.70	0.00
tblWoodstoves	NumberCatalytic	19.28	0.00
tblWoodstoves	NumberNoncatalytic	19.28	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

## 2.0 Emissions Summary

### 2.2 Overall Operational Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	50.4545	12.8569	84.7223	0.0804		1.4069	1.4069		1.4069	1.4069	0	15,386.14	15,386.14	0.4303	0.2795	15,480.18
Energy	0.2529	2.163	0.9362	0.0138		0.1747	0.1747		0.1747	0.1747		2,758.32	2,758.32	0.0529	0.0506	2,774.71
Mobile	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Stationary	0.3302	1.4769	0.8421	1.59E-03		0.0486	0.0486		0.0486	0.0486		168.9522	168.9522	0.0237		169.5444
<b>Total</b>	<b>51.0376</b>	<b>16.4968</b>	<b>86.5006</b>	<b>0.0958</b>	<b>0</b>	<b>1.6302</b>	<b>1.6302</b>	<b>0</b>	<b>1.6302</b>	<b>1.6302</b>	<b>0</b>	<b>18,313.41</b>	<b>18,313.41</b>	<b>0.5069</b>	<b>0.33</b>	<b>18,424.43</b>

### Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Category	lb/day										lb/day					
	Area	Energy	Mobile	Stationary	Total	Area	Energy	Mobile	Stationary	Total	Bio- CO2	NBio-CO2	Total	CH4	N2O	CO2e
Area	41.0207	12.8569	84.7223	0.0804		1.4069	1.4069		1.4069	1.4069	0	15,386.14	15,386.14	0.4303	0.2795	15,480.18
Energy	0.2529	2.163	0.9362	0.0138		0.1747	0.1747		0.1747	0.1747		2,758.32	2,758.32	0.0529	0.0506	2,774.71
Mobile	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Stationary	0.3302	1.4769	0.8421	1.59E-03		0.0486	0.0486		0.0486	0.0486		168.9522	168.9522	0.0237		169.5444
<b>Total</b>	<b>41.6038</b>	<b>16.4968</b>	<b>86.5006</b>	<b>0.0958</b>	<b>0</b>	<b>1.6302</b>	<b>1.6302</b>	<b>0</b>	<b>1.6302</b>	<b>1.6302</b>	<b>0</b>	<b>18,313.41</b>	<b>18,313.41</b>	<b>0.5069</b>	<b>0.33</b>	<b>18,424.43</b>

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-CO2	Total	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>18.48</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

## 5.0 Energy Detail

Historical Energy Use: N

## 5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas	0.2529	2.1630	0.9362	0.0138		0.1747	0.1747		0.1747	0.1747		2,758.316	2,758.3164	0.0529	0.0506	2,774.707
NaturalGas	0.2529	2.1630	0.9362	0.0138		0.1747	0.1747		0.1747	0.1747		2,758.316	2,758.3164	0.0529	0.0506	2,774.707

## 5.2 Energy by Land Use - NaturalGas Unmitigated

	NaturalGa	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	16336.7	0.1762	1.5055	0.6407	9.6100e-003		0.1217	0.1217		0.1217	0.1217		1,921.9609	1,921.9609	0.0368	0.0352	1,933.3822
Apartments Mid Rise	6721.24	0.0725	0.6194	0.2636	3.9500e-003		0.0501	0.0501		0.0501	0.0501		790.7336	790.7336	0.0152	0.0145	795.4325
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	387.786	4.1800e-003	0.0380	0.0319	2.3000e-004		2.8900e-003	2.8900e-003		2.8900e-003	2.8900e-003		45.6219	45.6219	8.7000e-004	8.4000e-004	45.8930

<b>Total</b>		<b>0.2528</b>	<b>2.1630</b>	<b>0.9362</b>	<b>0.0138</b>		<b>0.1747</b>	<b>0.1747</b>		<b>0.1747</b>	<b>0.1747</b>		<b>2,758.3164</b>	<b>2,758.3164</b>	<b>0.0529</b>	<b>0.0506</b>	<b>2,774.7077</b>
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**Mitigated**

	NaturalGas	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	6.72124	0.0725	0.6194	0.2636	3.9500e-003		0.0501	0.0501		0.0501	0.0501		790.7336	790.7336	0.0152	0.0145	795.4325
Apartments Mid Rise	16.3367	0.1762	1.5055	0.6407	9.6100e-003		0.1217	0.1217		0.1217	0.1217		1,921.9609	1,921.9609	0.0368	0.0352	1,933.3822
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0.387786	4.1800e-003	0.0380	0.0319	2.3000e-004		2.8900e-003	2.8900e-003		2.8900e-003	2.8900e-003		45.6219	45.6219	8.7000e-004	8.4000e-004	45.8930
<b>Total</b>		<b>0.2528</b>	<b>2.1630</b>	<b>0.9362</b>	<b>0.0138</b>		<b>0.1747</b>	<b>0.1747</b>		<b>0.1747</b>	<b>0.1747</b>		<b>2,758.3164</b>	<b>2,758.3164</b>	<b>0.0529</b>	<b>0.0506</b>	<b>2,774.7077</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	41.0207	12.8569	84.7223	0.0804		1.4069	1.4069		1.4069	1.4069	0.0000	15,386.1445	15,386.1445	0.4303	0.2795	15,480.1776
Unmitigated	50.4545	12.8569	84.7223	0.0804		1.4069	1.4069		1.4069	1.4069	0.0000	15,386.1445	15,386.1445	0.4303	0.2795	15,480.1776

**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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SubCategory	lb/day										lb/day					
Architectural Coating	7.1295					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	39.5250					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.3972	11.9400	5.0809	0.0762		0.9654	0.9654		0.9654	0.9654	0.0000	15,242.5412	15,242.5412	0.2922	0.2795	15,333.1200
Landscaping	2.4027	0.9169	79.6415	4.2100e-003		0.4415	0.4415		0.4415	0.4415		143.6033	143.6033	0.1382		147.0577
<b>Total</b>	<b>50.4545</b>	<b>12.8569</b>	<b>84.7223</b>	<b>0.0804</b>		<b>1.4069</b>	<b>1.4069</b>		<b>1.4069</b>	<b>1.4069</b>	<b>0.0000</b>	<b>15,386.1445</b>	<b>15,386.1445</b>	<b>0.4303</b>	<b>0.2795</b>	<b>15,480.1776</b>

**Mitigated**

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Architectural Coating	0.6319					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	36.5889					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.3972	11.9400	5.0809	0.0762		0.9654	0.9654		0.9654	0.9654	0.0000	15,242.5412	15,242.5412	0.2922	0.2795	15,333.1200
Landscaping	2.4027	0.9169	79.6415	4.2100e-003		0.4415	0.4415		0.4415	0.4415		143.6033	143.6033	0.1382		147.0577
<b>Total</b>	<b>41.0207</b>	<b>12.8569</b>	<b>84.7223</b>	<b>0.0804</b>		<b>1.4069</b>	<b>1.4069</b>		<b>1.4069</b>	<b>1.4069</b>	<b>0.0000</b>	<b>15,386.1445</b>	<b>15,386.1445</b>	<b>0.4303</b>	<b>0.2795</b>	<b>15,480.1776</b>

**10.1 Stationary Sources  
Unmitigated/Mitigated**

Equipment Type	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Emergency Generator - Diesel	0.3302	1.4769	0.8421	1.5900e-003		0.0486	0.0486		0.0486	0.0486		168.9522	168.9522	0.0237		169.5444
<b>Total</b>	<b>0.3302</b>	<b>1.4769</b>	<b>0.8421</b>	<b>1.5900e-003</b>		<b>0.0486</b>	<b>0.0486</b>		<b>0.0486</b>	<b>0.0486</b>		<b>168.9522</b>	<b>168.9522</b>	<b>0.0237</b>		<b>169.5444</b>

Station East Operation - Alameda County, Annual

**Station East Operation  
Alameda County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	1,124.00	Space	5.12	449,600.00	0
Enclosed Parking Structure	454.00	Space	1.41	181,600.00	0
Parking Lot	214.00	Space	0.98	85,600.00	0
Apartments Mid Rise	683.00	Dwelling Unit	14.57	1,278,379.00	1953
Apartments Mid Rise	281.00	Dwelling Unit	4.07	525,951.00	804
Regional Shopping Center	30.77	1000sqft	0.35	30,770.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	63
<b>Climate Zone</b>	5			<b>Operational Year</b>	2025
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity</b>	105	<b>CH4 Intensity</b>	0.027	<b>N2O Intensity</b>	0.003

**1.3 User Entered Comments & Non-Default Data**

- Project Characteristics - Efs adjusted for 2025
- Land Use - lot acreage scaled by sf; land use amounts per applicant
- Construction Phase - operational analysis only
- Off-road Equipment - operational analysis only
- Grading - operational analysis only
- Demolition - operational analysis only
- Trips and VMT - operational analysis only
- Architectural Coating - operational analysis only
- Vehicle Trips - mobile sources evaluated separately
- Woodstoves - assumed all default fireplaces to be gas; assumed no woodstoves
- Energy Use -

Stationary Sources - Emergency Generators and Fire Pumps - provided by applicant

Land Use Change -

Area Mitigation - assumed extremely compliant VOC paint and green consumer products

Water Mitigation - assumed compliance with CalGreen

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	15,385.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	46,155.00	0.00
tblArchitecturalCoating	ConstArea_Parking	43,008.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	1,217,923.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Interior	3,653,768.00	0.00
tblAreaMitigation	UseLowVOCPaintNonresidentialExterio	150	10
tblAreaMitigation	UseLowVOCPaintNonresidentialInterior	100	10
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	150	10
tblAreaMitigation	UseLowVOCPaintResidentialExteriorVa	150	10
tblAreaMitigation	UseLowVOCPaintResidentialInteriorVal	100	10
tblConstructionPhase	NumDays	35.00	0.00
tblConstructionPhase	NumDays	440.00	0.00
tblConstructionPhase	NumDays	30.00	0.00
tblConstructionPhase	NumDays	45.00	0.00
tblConstructionPhase	NumDays	35.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	PhaseEndDate	9/30/2022	8/12/2022
tblConstructionPhase	PhaseEndDate	6/24/2022	10/16/2020
tblConstructionPhase	PhaseEndDate	7/17/2020	6/7/2020
tblConstructionPhase	PhaseEndDate	10/16/2020	8/14/2020
tblConstructionPhase	PhaseEndDate	8/12/2022	6/24/2022
tblConstructionPhase	PhaseEndDate	8/14/2020	7/17/2020
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	144.60	308.48
tblFireplaces	NumberWood	163.88	0.00
tblLandUse	LandUseSquareFeet	683,000.00	1,278,379.00
tblLandUse	LandUseSquareFeet	281,000.00	525,951.00
tblLandUse	LotAcreage	10.12	5.12
tblLandUse	LotAcreage	4.09	1.41
tblLandUse	LotAcreage	1.93	0.98
tblLandUse	LotAcreage	17.97	14.57
tblLandUse	LotAcreage	7.39	4.07
tblLandUse	LotAcreage	0.71	0.35
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.027
tblProjectCharacteristics	CO2IntensityFactor	641.35	105
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003

tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	805.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.25
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	3.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	VendorTripNumber	226.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	0.00
tblTripsAndVMT	WorkerTripNumber	1,005.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	201.00	0.00
tblVehicleTrips	ST_TR	6.39	0.00
tblVehicleTrips	ST_TR	49.97	0.00
tblVehicleTrips	SU_TR	5.86	0.00
tblVehicleTrips	SU_TR	25.24	0.00
tblVehicleTrips	WD_TR	6.65	0.00
tblVehicleTrips	WD_TR	42.70	0.00
tblWoodstoves	NumberCatalytic	19.28	0.00
tblWoodstoves	NumberNoncatalytic	19.28	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

## 2.0 Emissions Summary

### 2.2 Overall Operational Unmitigated Operational

Category	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Area	8.7385	0.149	7.196	8.00E-04		0.0451	0.0451		0.0451	0.0451	0	88.7456	88.7456	0.0128	1.41E-03	89.4853
Energy	0.0461	0.3947	0.1709	2.52E-03		0.0319	0.0319		0.0319	0.0319	0	837.7512	837.7512	0.1068	0.0193	846.1594
Mobile	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stationary	1.98E-03	8.86E-03	5.05E-03	1.00E-05		2.90E-04	2.90E-04		2.90E-04	2.90E-04	0	0.9196	0.9196	1.30E-04	0	0.9229
Waste						0	0		0	0	96.573	0	96.573	5.7073	0	239.2554
Water						0	0		0	0	20.6493	23.6072	44.2566	2.127	0.0508	112.5548
<b>Total</b>	<b>8.7866</b>	<b>0.5526</b>	<b>7.3719</b>	<b>3.33E-03</b>	<b>0</b>	<b>0.0773</b>	<b>0.0773</b>	<b>0</b>	<b>0.0773</b>	<b>0.0773</b>	<b>117.2223</b>	<b>951.0237</b>	<b>1,068.25</b>	<b>7.9539</b>	<b>0.0714</b>	<b>1,288.38</b>

### Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	7.0168	0.1490	7.1960	8.0000e-004		0.0451	0.0451		0.0451	0.0451	0.0000	88.7456	88.7456	0.0128	1.4100e-003	89.4853
Energy	0.0461	0.3947	0.1709	2.5200e-003		0.0319	0.0319		0.0319	0.0319	0.0000	837.7512	837.7512	0.1068	0.0193	846.1594
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Stationary	1.9800e-003	8.8600e-003	5.0500e-003	1.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004	0.0000	0.9196	0.9196	1.3000e-004	0.0000	0.9229
Waste						0.0000	0.0000		0.0000	0.0000	96.5730	0.0000	96.5730	5.7073	0.0000	239.2554
Water						0.0000	0.0000		0.0000	0.0000	16.5195	20.2525	36.7719	1.7019	0.0406	91.4310
<b>Total</b>	<b>7.0649</b>	<b>0.5526</b>	<b>7.3719</b>	<b>3.3300e-003</b>	<b>0.0000</b>	<b>0.0773</b>	<b>0.0773</b>	<b>0.0000</b>	<b>0.0773</b>	<b>0.0773</b>	<b>113.0924</b>	<b>947.6689</b>	<b>1,060.7613</b>	<b>7.5289</b>	<b>0.0613</b>	<b>1,267.2540</b>

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total	CH4	N2O	CO2e
Percent	19.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.52	0.35	0.70	5.34	14.16	1.64

## 5.0 Energy Detail

Historical Energy Use: N

### 5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	381.0810	381.0810	0.0980	0.0109	386.7755
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	381.0810	381.0810	0.0980	0.0109	386.7755
NaturalGas Mitigated	0.0461	0.3947	0.1709	2.5200e-003		0.0319	0.0319		0.0319	0.0319	0.0000	456.6702	456.6702	8.7500e-003	8.3700e-003	459.3840
NaturalGas Unmitigated	0.0461	0.3947	0.1709	2.5200e-003		0.0319	0.0319		0.0319	0.0319	0.0000	456.6702	456.6702	8.7500e-003	8.3700e-003	459.3840

### 5.2 Energy by Land Use - NaturalGas

#### Unmitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	2.45E+06	0.0132	0.113	0.0481	7.20E-04		9.14E-03	9.14E-03		9.14E-03	9.14E-03	0	130.9148	130.9148	2.51E-03	2.40E-03	131.6928
Apartments Mid Rise	5.96E+06	0.0322	0.2748	0.1169	1.75E-03		0.0222	0.0222		0.0222	0.0222	0	318.2022	318.2022	6.10E-03	5.83E-03	320.0931
Enclosed Parking Structure	0	0	0	0	0		0	0		0	0	0	0	0	0	0	0
Parking Lot	0	0	0	0	0		0	0		0	0	0	0	0	0	0	0
Regional Shopping Center	141542	7.60E-04	6.94E-03	5.83E-03	4.00E-05		5.30E-04	5.30E-04		5.30E-04	5.30E-04	0	7.5532	7.5532	1.40E-04	1.40E-04	7.5981
<b>Total</b>		<b>0.0461</b>	<b>0.3947</b>	<b>0.1709</b>	<b>2.5100e-003</b>		<b>0.0319</b>	<b>0.0319</b>		<b>0.0319</b>	<b>0.0319</b>	<b>0.0000</b>	<b>456.6702</b>	<b>456.6702</b>	<b>8.7500e-003</b>	<b>8.3700e-003</b>	<b>459.3840</b>

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	2.45325e+006	0.0132	0.1130	0.0481	7.2000e-004		9.1400e-003	9.1400e-003		9.1400e-003	9.1400e-003	0.0000	130.9148	130.9148	2.5100e-003	2.4000e-003	131.6928
Apartments Mid Rise	5.96288e+006	0.0322	0.2748	0.1169	1.7500e-003		0.0222	0.0222		0.0222	0.0222	0.0000	318.2022	318.2022	6.1000e-003	5.8300e-003	320.0931
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	141542	7.6000e-004	6.9400e-003	5.8300e-003	4.0000e-005		5.3000e-004	5.3000e-004		5.3000e-004	5.3000e-004	0.0000	7.5532	7.5532	1.4000e-004	1.4000e-004	7.5981
<b>Total</b>		<b>0.0461</b>	<b>0.3947</b>	<b>0.1709</b>	<b>2.5100e-003</b>		<b>0.0319</b>	<b>0.0319</b>		<b>0.0319</b>	<b>0.0319</b>	<b>0.0000</b>	<b>456.6702</b>	<b>456.6702</b>	<b>8.7500e-003</b>	<b>8.3700e-003</b>	<b>459.3840</b>

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.19E+06	56.5039	0.0145	1.6100e-003	57.3483



Apartments Mid Rise	2.88E+06	137.3387	0.0353	3.9200e-003	139.3909
Enclosed Parking Structure	1.03E+06	49.0404	0.0126	1.4000e-003	49.7732
Enclosed Parking Structure	2.55E+06	121.4128	0.0312	3.4700e-003	123.2270
Parking Lot	29960	1.4269	3.7000e-004	4.0000e-005	1.4482
Regional Shopping Center	322470	15.3583	3.9500e-003	4.4000e-004	15.5878
<b>Total</b>		<b>381.0810</b>	<b>0.0980</b>	<b>0.0109</b>	<b>386.7755</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.18638e+006	56.5039	0.0145	1.6100e-003	57.3483
Apartments Mid Rise	2.88362e+006	137.3387	0.0353	3.9200e-003	139.3909
Enclosed Parking Structure	1.02967e+006	49.0404	0.0126	1.4000e-003	49.7732
Enclosed Parking Structure	2.54923e+006	121.4128	0.0312	3.4700e-003	123.2270
Parking Lot	29960	1.4269	3.7000e-004	4.0000e-005	1.4482
Regional Shopping Center	322470	15.3583	3.9500e-003	4.4000e-004	15.5878
<b>Total</b>		<b>381.0810</b>	<b>0.0980</b>	<b>0.0109</b>	<b>386.7755</b>

**6.0 Area Detail**

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**6.1 Mitigation Measures Area**

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	7.0168	0.1490	7.1960	8.0000e-004		0.0451	0.0451		0.0451	0.0451	0.0000	88.7456	88.7456	0.0128	1.4100e-003	89.4853
Unmitigated	8.7385	0.1490	7.1960	8.0000e-004		0.0451	0.0451		0.0451	0.0451	0.0000	88.7456	88.7456	0.0128	1.4100e-003	89.4853

## 6.2 Area by SubCategory

### Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.3011					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	7.2133					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	7.7800e-003	0.0665	0.0283	4.2000e-004		5.3800e-003	5.3800e-003		5.3800e-003	5.3800e-003	0.0000	77.0209	77.0209	1.4800e-003	1.4100e-003	77.4786
Landscaping	0.2162	0.0825	7.1677	3.8000e-004		0.0397	0.0397		0.0397	0.0397	0.0000	11.7247	11.7247	0.0113	0.0000	12.0068
<b>Total</b>	<b>8.7385</b>	<b>0.1490</b>	<b>7.1960</b>	<b>8.0000e-004</b>		<b>0.0451</b>	<b>0.0451</b>		<b>0.0451</b>	<b>0.0451</b>	<b>0.0000</b>	<b>88.7456</b>	<b>88.7456</b>	<b>0.0128</b>	<b>1.4100e-003</b>	<b>89.4853</b>

### Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1153					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.6775					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	7.7800e-003	0.0665	0.0283	4.2000e-004		5.3800e-003	5.3800e-003		5.3800e-003	5.3800e-003	0.0000	77.0209	77.0209	1.4800e-003	1.4100e-003	77.4786
Landscaping	0.2162	0.0825	7.1677	3.8000e-004		0.0397	0.0397		0.0397	0.0397	0.0000	11.7247	11.7247	0.0113	0.0000	12.0068
<b>Total</b>	<b>7.0168</b>	<b>0.1490</b>	<b>7.1960</b>	<b>8.0000e-004</b>		<b>0.0451</b>	<b>0.0451</b>		<b>0.0451</b>	<b>0.0451</b>	<b>0.0000</b>	<b>88.7456</b>	<b>88.7456</b>	<b>0.0128</b>	<b>1.4100e-003</b>	<b>89.4853</b>

## 7.0 Water Detail

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### 7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet  
 Install Low Flow Kitchen Faucet  
 Install Low Flow Toilet  
 Install Low Flow Shower

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	36.7719	1.7019	0.0406	91.4310
Unmitigated	44.2566	2.1270	0.0508	112.5548

### 7.2 Water by Land Use

#### Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	62.8085 / 39.5967	42.7132	2.0525	0.0490	108.6200
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	2.27921 / 1.39694	1.5433	0.0745	1.7800e-003	3.9349
<b>Total</b>		<b>44.2566</b>	<b>2.1270</b>	<b>0.0508</b>	<b>112.5548</b>

#### Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
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Land Use	Mgal	MT/yr			
Apartments Mid Rise	50.2468 / 39.5967	35.4907	1.6423	0.0392	88.2358
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	1.82337 / 1.39694	1.2812	0.0596	1.4200e-003	3.1952
<b>Total</b>		<b>36.7719</b>	<b>1.7019</b>	<b>0.0406</b>	<b>91.4310</b>

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

#### Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	96.5730	5.7073	0.0000	239.2554
Unmitigated	96.5730	5.7073	0.0000	239.2554

### 8.2 Waste by Land Use

#### Unmitigated

Land Use	Waste Disposed	Total CO2	CH4	N2O	CO2e
	tons	MT/yr			
Apartments Mid Rise	443.44	90.0143	5.3197	0.0000	223.0067
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	32.31	6.5586	0.3876	0.0000	16.2488
<b>Total</b>		<b>96.5730</b>	<b>5.7073</b>	<b>0.0000</b>	<b>239.2554</b>

## Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	443.44	90.0143	5.3197	0.0000	223.0067
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	32.31	6.5586	0.3876	0.0000	16.2488
<b>Total</b>		<b>96.5730</b>	<b>5.7073</b>	<b>0.0000</b>	<b>239.2554</b>

## 10.1 Stationary Sources

### Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel	1.9800e-003	8.8600e-003	5.0500e-003	1.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004	0.0000	0.9196	0.9196	1.3000e-004	0.0000	0.9229
<b>Total</b>	<b>1.9800e-003</b>	<b>8.8600e-003</b>	<b>5.0500e-003</b>	<b>1.0000e-005</b>		<b>2.9000e-004</b>	<b>2.9000e-004</b>		<b>2.9000e-004</b>	<b>2.9000e-004</b>	<b>0.0000</b>	<b>0.9196</b>	<b>0.9196</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>0.9229</b>

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Station East  
 RUN: CALINE4 RUN (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	0.5 M/S	Z0=	100. CM	ALT=
0. (M)	BRG= WORST CASE	VD=	0.0 CM/S	
	CLAS= 7 (G)	VS=	0.0 CM/S	
	MIXH= 1000. M	AMB=	0.0 PPM	
	SIGTH= 15. DEGREES	TEMP=	5.6 DEGREE (C)	

II. LINK VARIABLES

H	LINK W DESCRIPTION (M)	*	LINK COORDINATES (M)				*	TYPE	VPH	EF (G/MI)
(M)	(M)	*	X1	Y1	X2	Y2	* TYPE	VPH	(G/MI)	
-----*										
A.	EBA	*	-1000	-4	0	-4	* AG	934	3.7	
0.0	13.3									
B.	EBD	*	0	-4	1000	-4	* AG	1295	3.7	
0.0	13.3									
C.	WBA	*	1000	7	0	7	* AG	2050	3.7	
0.0	20.6									
D.	WBD	*	0	2	-1000	2	* AG	1801	3.7	
0.0	10.0									
E.	SBA	*	-9	1000	-9	0	* AG	39	3.7	
0.0	24.3									
F.	SBD	*	-5	0	-5	-1000	* AG	462	3.7	
0.0	17.0									
G.	NBA	*	9	-1000	9	0	* AG	600	3.7	
0.0	24.3									
H.	NBD	*	5	0	5	1000	* AG	65	3.7	
0.0	17.0									

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M)		
	X	Y	Z
1. R_001	-21	7	1.8
2. R_002	14	18	1.8
3. R_003	-14	-10	1.8
4. R_004	21	-10	1.8

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CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 2

JOB: Station East  
 RUN: CALINE4 RUN (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE )

RECEPTOR	* BRG * (DEG)	* PRED * CONC * (PPM)	CONC/LINK (PPM)						
			A	B	C	D	E	F	G
1. R_001	95.	1.6	0.0	0.4	0.6	0.5	0.0	0.0	
0.0 0.0									
2. R_002	99.	1.2	0.0	0.3	0.9	0.0	0.0	0.0	
0.0 0.0									
3. R_003	81.	1.4	0.1	0.5	0.5	0.0	0.0	0.1	
0.1 0.0									
4. R_004	279.	1.3	0.3	0.3	0.0	0.5	0.0	0.0	
0.1 0.0									

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CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Station East  
 RUN: CALINE4 RUN (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	0.5 M/S	Z0=	100. CM		ALT=
0. (M)	BRG= WORST CASE	VD=	0.0 CM/S		
	CLAS= 7 (G)	VS=	0.0 CM/S		
	MIXH= 1000. M	AMB=	0.0 PPM		
	SIGTH= 15. DEGREES	TEMP=	5.6 DEGREE (C)		

II. LINK VARIABLES

H	LINK	*	LINK COORDINATES (M)				*	EF	
	W		X1	Y1	X2	Y2	TYPE	VPH	(G/MI)
(M)	(M)								
-----*									
	A. EBA	*	-1000	-4	0	-4	* AG	956	3.7
0.0	13.3								
	B. EBD	*	0	-4	1000	-4	* AG	1316	3.7
0.0	13.3								
	C. WBA	*	1000	7	0	7	* AG	2078	3.7
0.0	20.6								
	D. WBD	*	0	2	-1000	2	* AG	1829	3.7
0.0	10.0								
	E. SBA	*	-9	1000	-9	0	* AG	39	3.7
0.0	24.3								
	F. SBD	*	-5	0	-5	-1000	* AG	463	3.7
0.0	17.0								
	G. NBA	*	9	-1000	9	0	* AG	600	3.7
0.0	24.3								
	H. NBD	*	5	0	5	1000	* AG	65	3.7
0.0	17.0								

III. RECEPTOR LOCATIONS



RECEPTOR	COORDINATES (M)		
	X	Y	Z
1. R_001	-21	7	1.8
2. R_002	14	18	1.8
3. R_003	-14	-10	1.8
4. R_004	21	-10	1.8

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CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 2

JOB: Station East  
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 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE )

RECEPTOR	* BRG (DEG)	* PRED * CONC (PPM)	CONC/LINK (PPM)						
			A	B	C	D	E	F	G
1. R_001	95.	1.6	0.0	0.4	0.6	0.5	0.0	0.0	0.0
0.0 0.0									
2. R_002	99.	1.2	0.0	0.3	0.9	0.0	0.0	0.0	0.0
0.0 0.0									
3. R_003	81.	1.4	0.2	0.5	0.5	0.0	0.0	0.1	
0.1 0.0									
4. R_004	279.	1.3	0.3	0.3	0.0	0.5	0.0	0.0	
0.1 0.0									

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CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Station East  
 RUN: CALINE4 RUN (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	0.5 M/S	Z0=	100. CM		ALT=
0. (M)	BRG= WORST CASE	VD=	0.0 CM/S		
	CLAS= 7 (G)	VS=	0.0 CM/S		
	MIXH= 1000. M	AMB=	0.0 PPM		
	SIGTH= 15. DEGREES	TEMP=	5.6 DEGREE (C)		

II. LINK VARIABLES

H	LINK	*	LINK COORDINATES (M)				*	EF		
(M)	DESCRIPTION	*	X1	Y1	X2	Y2	* TYPE	VPH	(G/MI)	
(M)	(M)	*	-----				*	-----		
A.	EBA	*	-1000	-4	0	-4	* AG	941	3.7	
0.0	13.3									
B.	EBD	*	0	-4	1000	-4	* AG	462	3.7	
0.0	13.3									
C.	WBA	*	1000	5	0	5	* AG	329	3.7	
0.0	17.0									
D.	WBD	*	0	4	-1000	4	* AG	682	3.7	
0.0	13.3									
E.	SBA	*	-4	1000	-4	0	* AG	472	3.7	
0.0	13.3									
F.	SBD	*	-2	0	-2	-1000	* AG	1	3.7	
0.0	10.0									
G.	NBA	*	2	-1000	2	0	* AG	2	3.7	
0.0	10.0									
H.	NBD	*	2	0	2	1000	* AG	599	3.7	
0.0	10.0									

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M)		
	X	Y	Z
1. R_001	-10	10	1.8
2. R_002	7	14	1.8
3. R_003	-7	-10	1.8
4. R_004	7	-10	1.8

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CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 2

JOB: Station East  
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 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE )

RECEPTOR	* BRG (DEG)	* PRED * CONC (PPM)	CONC/LINK (PPM)						
			A	B	C	D	E	F	G
1. R_001	261.	0.7	0.3	0.0	0.0	0.4	0.0	0.0	
0.0 0.0									
2. R_002	261.	0.8	0.3	0.0	0.0	0.3	0.1	0.0	
0.0 0.2									
3. R_003	4.	0.8	0.2	0.0	0.0	0.1	0.3	0.0	
0.0 0.2									
4. R_004	278.	0.7	0.5	0.0	0.0	0.2	0.0	0.0	
0.0 0.0									

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CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Station East  
 RUN: CALINE4 RUN (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	0.5 M/S	Z0=	100. CM		ALT=
0. (M)	BRG= WORST CASE	VD=	0.0 CM/S		
	CLAS= 7 (G)	VS=	0.0 CM/S		
	MIXH= 1000. M	AMB=	0.0 PPM		
	SIGTH= 15. DEGREES	TEMP=	5.6 DEGREE (C)		

II. LINK VARIABLES

H	LINK	*	LINK COORDINATES (M)				*	EF	
	W		X1	Y1	X2	Y2	TYPE	VPH	(G/MI)
(M)	(M)								
A.	EBA	*	-1000	-4	0	-4	* AG	941	3.7
0.0	13.3								
B.	EBD	*	0	-4	1000	-4	* AG	462	3.7
0.0	13.3								
C.	WBA	*	1000	5	0	5	* AG	329	3.7
0.0	17.0								
D.	WBD	*	0	4	-1000	4	* AG	683	3.7
0.0	13.3								
E.	SBA	*	-4	1000	-4	0	* AG	473	3.7
0.0	13.3								
F.	SBD	*	-2	0	-2	-1000	* AG	1	3.7
0.0	10.0								
G.	NBA	*	2	-1000	2	0	* AG	2	3.7
0.0	10.0								
H.	NBD	*	2	0	2	1000	* AG	599	3.7
0.0	10.0								

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M)		
	X	Y	Z
1. R_001	-10	10	1.8
2. R_002	7	14	1.8
3. R_003	-7	-10	1.8
4. R_004	7	-10	1.8

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CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
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 PAGE 2

JOB: Station East  
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IV. MODEL RESULTS (WORST CASE WIND ANGLE )

RECEPTOR	* BRG (DEG)	* PRED * CONC (PPM)	CONC/LINK (PPM)						
			A	B	C	D	E	F	G
1. R_001	261.	0.7	0.3	0.0	0.0	0.4	0.0	0.0	
0.0 0.0									
2. R_002	261.	0.8	0.3	0.0	0.0	0.3	0.1	0.0	
0.0 0.2									
3. R_003	4.	0.8	0.2	0.0	0.0	0.1	0.3	0.0	
0.0 0.2									
4. R_004	278.	0.7	0.5	0.0	0.0	0.2	0.0	0.0	
0.0 0.0									

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**Battery Generators - Operational GHG Emissions**

mt per lb 4.54E-04  
CH4 25  
N2O 298

**Emission Factors (lb/MWh)\***

Year	CO2	CH4	N2O
2018	210	0.03	0.00
2040	0	0.01	0.00

\*See Utility Efs spreadsheet in 01 Emission Factors

Annual kwh	137	Assumption
Annual MWh	0.14	

**Emissions (MT per year)**

Year	CO2	CH4	N2O	CO2e
2018	0	0.0	0.0	0
2040	0	0.0	0.0	0

**Emission Factors**

	Running (RUNEX, PMTW, PMBW, RD) grams per mile												Process (IDLEX, STREX, TOTEX, DIURN, HTSK, RUNLS, RESTL) grams per trip									
	ROG	TOG	CO	NOx	CO2	CH4	PM10 Ex	PM10 D	PM2.5 Ex	PM2.5 D	SOX	N2O	ROG	TOG	CO	NOx	CO2	CH4	PM10	PM2.5	SOX	N2O
2018	0.06	0.08	1.23	0.46	418.35	0.01	0.01	0.34	0.01	0.09	0.00	0.02	0.17	0.18	0.42	0.08	11.30	0.01	0.00	0.00	0.00	0.01
2023	0.03	0.04	0.75	0.22	369.38	0.01	0.00	0.34	0.00	0.09	0.00	0.02	0.13	0.14	0.37	0.07	10.65	0.01	0.00	0.00	0.00	0.00
2025	0.02	0.03	0.66	0.21	353.65	0.01	0.00	0.34	0.00	0.09	0.00	0.02	0.12	0.12	0.35	0.07	10.29	0.01	0.00	0.00	0.00	0.00

Year	GAS	DIESEL
	gal/mi	gal/mi
2018	0.038	0.010
2023	0.032	0.010
2025	0.030	0.010

Source: EMFAC2017, Factored in SAFE, Calemod and CARB (Road Dust)

**Summary of Mobile Source Emissions**

Condition	Pounds per Day						Metric Tons per Year				Gallons per year	
	ROG	NOx	CO	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e	Gasoline	Diesel
Existing (2018)	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0	0
Phase 1 (2023)	5	33	112	49	13	1	8,360	0	0	8,501	728,635	222,506
Project (2025)	7	44	139	69	19	1	11,219	0	1	11,410	951,296	310,029

**Daily VMT**

Speed Bin	Existing (2018)	Phase 1 (Project)	Project
<b>Total</b>	0	65,222	91,425

Source: F&P 2/24/20

**Annual VMT**

Speed Bin	Existing (2018)	Phase 1 (Project)	Existing Plus Project (2018)
<b>Total</b>	0	22,631,980	31,724,384

Assumption: 347 days per year (CARB)

**Daily Trips**

Condition	Trips
Existing (2018)	0
Phase 1 Project	5764
Project	8,080

Source: F&P 2/24/20

**Annual Trips**

Condition	Trips
Existing (2018)	0
Phase 1 Project	2,000,185
Project	2,803,760

Assumption: 347 days per year (CARB)

	Units	Residential SF	
Phase 1 Residential	683	1,278,379	70%
Phase 1 Retail	-	30,770	2%
Phase 2 Residential	281	525,951	29%
Phase 1		71%	
Phase 1 VMT		65,222	



# Health Risk Analysis



HRA Analysis Summary

**Construction**

Receptor	Cancer Risk (cases per million)	Non-Cancer Hazard Index	Annual PM2.5 Concentration ( $\mu\text{g}/\text{m}^3$ )
Maximum Exposed Offsite Receptor <sup>a</sup>	8.94	0.005	0.15
Maximum Exposed Onsite Receptor <sup>b</sup>	3.57	0.00	0.21
<i>Significance Threshold</i>	<i>10</i>	<i>1</i>	<i>0.3</i>
<i>Exceed Threshold?</i>	<i>No</i>	<i>No</i>	<i>No</i>

Cumulative

Source	Cancer Risk (cases per million)	Non-Cancer Hazard Index	Annual PM2.5 Concentration ( $\mu\text{g}/\text{m}^3$ )
<b>Contribution from Existing Sources</b>			
Stationary Sources	7.8	0.002	0.01
Roadway Sources	4.0	0.001	0.08
Rail Sources	11.8	0.001	0.02
<b>Contribution from Project Construction<sup>b</sup></b>			
Maximum Exposed Individual	8.9	0.01	0.21
<b>Contribution from Project Operation</b>			
Maximum Exposed Individual	0.038	0.00	0.00
<b>Cumulative Totals</b>			
Existing + Construction	32.5	0.01	0.33
Existing + Operation	23.6	0.00	0.11
Existing + Construction + Operation	32.5	0.01	0.33
<i>BAAQMD Thresholds</i>	<i>100</i>	<i>10</i>	<i>0.8</i>

**Operation**

Receptor	Cancer Risk (cases per million)	Non-Cancer Hazard Index	Annual PM2.5 Concentration ( $\mu\text{g}/\text{m}^3$ )
Maximum Exposed Receptor <sup>a</sup>	0.03796	0.00	0.00005
<i>Significance Threshold</i>	<i>10</i>	<i>1</i>	<i>0.3</i>
<i>Exceed Threshold?</i>	<i>No</i>	<i>No</i>	<i>No</i>

**Total**

Receptor	Cancer Risk (cases per million)	Non-Cancer Hazard Index	Annual PM2.5 Concentration ( $\mu\text{g}/\text{m}^3$ )
Maximum Exposed Receptor <sup>a</sup>	8.97737	0.01	0.21
<i>Significance Threshold</i>	<i>10</i>	<i>1</i>	<i>0.3</i>
<i>Exceed</i>	<i>No</i>	<i>No</i>	<i>No</i>

**Summary of Offsite Mitigated Cancer and Noncancer Health Risks and PM2.5 Concentrations for the MEI**

Receptor	Cancer Risk (per million)	Chronic HI	PM2.5 (ug/m3)
MEI 1 Park (PM2.5)	0.89	0.004	0.22
MEI Residence (Cancer Risk)	8.94	0.005	0.15
Threshold	10	1.0	0.3

	DPM Reduction With Mitigation	DPM Reduction With Mitigatoin	PM2.5 Reduction With Mitigation
Reduction	92%	92%	50%
MEI Park 1 (Unmitigtged)	11.1	0.047	0.439
MEI Residence (Unmitigated)	110.9	0.064	0.290

Rec ID	Detail	Receptors		Type	Concentration ug/m3			Dose Inhalation by Bin			Cancer Risk by Bin			Sum of Cancer Risk		Chronic HI (max annual)	Max PM2.5 Total (ug/m3)
		X	Y		3RDTRI	0_2	2_9	3RDTRI	0_2	2_9	3RDTRI	0_2	2_9	Summed Risk	Cases Per Million		
Res_Highest_DPM1	Residence	587176.8	4161435.88	Residential	8.67E-03	2.57E-02	4.47E-03	3.0E-06	2.7E-05	2.7E-06	1.2E-07	8.4E-06	3.1E-07	9E-06	8.86	0.0051	0.174
Res_Highest_DPM2	Residence	587199.49	4161393.83	Residential	8.56E-03	2.59E-02	4.56E-03	3.0E-06	2.7E-05	2.8E-06	1.2E-07	8.5E-06	3.2E-07	9E-06	8.94	0.0052	0.146
Res_Highest_DPM3	Residence	587199.49	4161414.19	Residential	8.13E-03	2.44E-02	4.26E-03	2.8E-06	2.5E-05	2.6E-06	1.1E-07	8.0E-06	2.9E-07	8E-06	8.42	0.0049	0.148
Res_Highest_DPM4	Residence	587199.49	4161393.83	Residential	8.56E-03	2.59E-02	4.56E-03	3.0E-06	2.7E-05	2.8E-06	1.2E-07	8.5E-06	3.2E-07	9E-06	8.94	0.0052	0.146
Res_Highest_DPM5	Residence	587176.8	4161435.88	Residential	8.67E-03	2.57E-02	4.47E-03	3.0E-06	2.7E-05	2.7E-06	1.2E-07	8.4E-06	3.1E-07	9E-06	8.86	0.0051	0.174
Res_Highest_DPM6	Residence	587199.49	4161414.19	Residential	8.13E-03	2.44E-02	4.26E-03	2.8E-06	2.5E-05	2.6E-06	1.1E-07	8.0E-06	2.9E-07	8E-06	8.42	0.0049	0.148
Res_Highest_DPM7	Residence	587199.49	4161393.83	Residential	8.56E-03	2.59E-02	4.56E-03	3.0E-06	2.7E-05	2.8E-06	1.2E-07	8.5E-06	3.2E-07	9E-06	8.94	0.0052	0.146
Res_Highest_DPM8	Residence	587176.8	4161435.88	Residential	8.67E-03	2.57E-02	4.47E-03	3.0E-06	2.7E-05	2.7E-06	1.2E-07	8.4E-06	3.1E-07	9E-06	8.86	0.0051	0.174
Res_Highest_DPM9	Residence	587199.49	4161414.19	Residential	8.13E-03	2.44E-02	4.26E-03	2.8E-06	2.5E-05	2.6E-06	1.1E-07	8.0E-06	2.9E-07	8E-06	8.42	0.0049	0.148
Res_Highest_PM1	Residence	587176.8	4161435.88	Residential	8.67E-03	2.57E-02	4.47E-03	3.0E-06	2.7E-05	2.7E-06	1.2E-07	8.4E-06	3.1E-07	9E-06	8.86	0.0051	0.174
Res_Highest_PM2	Residence	587199.49	4161393.83	Residential	8.56E-03	2.59E-02	4.56E-03	3.0E-06	2.7E-05	2.8E-06	1.2E-07	8.5E-06	3.2E-07	9E-06	8.94	0.0052	0.146
Res_Highest_PM3	Residence	587199.49	4161414.19	Residential	8.13E-03	2.44E-02	4.26E-03	2.8E-06	2.5E-05	2.6E-06	1.1E-07	8.0E-06	2.9E-07	8E-06	8.42	0.0049	0.148
Res_Highest_PM4	Residence	587176.8	4161435.88	Residential	8.67E-03	2.57E-02	4.47E-03	3.0E-06	2.7E-05	2.7E-06	1.2E-07	8.4E-06	3.1E-07	9E-06	8.86	0.0051	0.174
Res_Highest_PM5	Residence	587199.49	4161393.83	Residential	8.56E-03	2.59E-02	4.56E-03	3.0E-06	2.7E-05	2.8E-06	1.2E-07	8.5E-06	3.2E-07	9E-06	8.94	0.0052	0.146
Res_Highest_PM6	Residence	587199.49	4161414.19	Residential	8.13E-03	2.44E-02	4.26E-03	2.8E-06	2.5E-05	2.6E-06	1.1E-07	8.0E-06	2.9E-07	8E-06	8.42	0.0049	0.148
Res_Highest_PM7	Residence	587176.8	4161435.88	Residential	8.67E-03	2.57E-02	4.47E-03	3.0E-06	2.7E-05	2.7E-06	1.2E-07	8.4E-06	3.1E-07	9E-06	8.86	0.0051	0.174
Park_Highest_PM8	Residence	586776.8	4161655.88	Residential	6.76E-03	1.90E-02	3.21E-03	2.3E-06	2.0E-05	1.9E-06	9.2E-08	6.2E-06	2.2E-07	7E-06	6.54	0.0038	0.2208
Res_Highest_PM9	Residence	587199.49	4161393.83	Residential	8.56E-03	2.59E-02	4.56E-03	3.0E-06	2.7E-05	2.8E-06	1.2E-07	8.5E-06	3.2E-07	9E-06	8.94	0.0052	0.146
Res_Highest_Dust1	Residence	587176.8	4161435.88	Residential	8.67E-03	2.57E-02	4.47E-03	3.0E-06	2.7E-05	2.7E-06	1.2E-07	8.4E-06	3.1E-07	9E-06	8.86	0.0051	0.174
Res_Highest_Dust2	Residence	587199.49	4161393.83	Residential	8.56E-03	2.59E-02	4.56E-03	3.0E-06	2.7E-05	2.8E-06	1.2E-07	8.5E-06	3.2E-07	9E-06	8.94	0.0052	0.146
Res_Highest_Dust3	Residence	587156.8	4161455.88	Residential	8.00E-03	2.37E-02	4.08E-03	2.8E-06	2.5E-05	2.5E-06	1.1E-07	7.8E-06	2.8E-07	8E-06	8.16	0.0047	0.169
Park_Highest_Dust4	Park	586776.8	4161655.88	Recreational	6.76E-03	1.90E-02	3.21E-03	5.8E-08	8.1E-07	7.3E-08	7.6E-09	8.6E-07	2.8E-08	9E-07	0.89	0.0038	0.221
Park_Highest_Dust5	Park	586796.8	4161655.88	Recreational	6.40E-03	1.83E-02	3.13E-03	5.5E-08	7.8E-07	7.2E-08	7.2E-09	8.3E-07	2.7E-08	9E-07	0.86	0.0037	0.170
Res_Highest_Dust6	Residence	587176.8	4161435.88	Residential	8.67E-03	2.57E-02	4.47E-03	3.0E-06	2.7E-05	2.7E-06	1.2E-07	8.4E-06	3.1E-07	9E-06	8.86	0.0051	0.174
Park_Highest_Dust7	Park	586776.8	4161655.88	Recreational	6.76E-03	1.90E-02	3.21E-03	5.8E-08	8.1E-07	7.3E-08	7.6E-09	8.6E-07	2.8E-08	9E-07	0.89	0.0038	0.221
Res_Highest_Dust8	Residence	587036.8	4161575.88	Residential	5.29E-03	1.52E-02	2.50E-03	1.8E-06	1.6E-05	1.5E-06	7.2E-08	5.0E-06	1.7E-07	5E-06	5.25	0.0030	0.153
Park_Highest_Dust9	Park	586796.8	4161655.88	Recreational	6.40E-03	1.83E-02	3.13E-03	5.5E-08	7.8E-07	7.2E-08	7.2E-09	8.3E-07	2.7E-08	9E-07	0.86	0.0037	0.170
														8.94	0.0052	0.2208	

$$\text{Dose-air} = C_{\text{air}} \times (\text{BR}/\text{BW}) \times A \times \text{EF} \times 10^{-6}$$

$$\text{RISK}_{\text{inh-res}} = \text{DOSE}_{\text{air}} \times \text{CPF} \times \text{ASF} \times \text{ED}/\text{AT} \times \text{FAH}$$

0

**DPM SUMMARY (g/sec/m2)**

Source	3rd tri	Qc2	2-9
ONSITE	1.55E-08	4.51E-08	8.50E-09
ONSITE - UPRR	0.00E+00	4.61E-06	0.00E+00
OFFSITE	7.69E-10	7.71E-10	3.42E-12
OFFSITE - UPRR	0.00E+00	1.32E-10	0.00E+00

**ASSUMPTIONS**

Area Project Site	onsite	offsite	
Area UPRR	110,546.50	58076.4	m2
AERMOD segment (Phase 1+2)	319.5	21609.6	
AERMOD segment (UPRR)	2393.1	meters	
meters to mile	675.3	meters	
	0.000621371		

PM2.5 Exhaust SUMMARY (g/sec/m2)

Source	3rd tri	Q42	2-9
ONSITE	1.55E-08	6.34E-08	1.24E-08
ONSITE - UPRR	0.00E+00	2.54E-08	0.00E+00
OFFSITE	7.92E-10	2.04E-09	1.71E-09
OFFSITE - UPRR	0.00E+00	2.92E-10	0.00E+00

ASSUMPTIONS

Area Project Site	onsite	offsite	
Area UPRR	110,546.50	58076.4	m2
AERMOD segment (Phase 1+2)	319.5	21609.6	
AERMOD segment (UPRR)	2393.1	meters	
meters to mile	675.3	meters	
	0.000621371		

**PM2.5 Dust SUMMARY (g/sec/m2)**

Source	3rd tri	Qc2	2-9
ONSITE	1.46E-07	1.46E-07	0.00E+00
ONSITE - UPRR	0.00E+00	4.90E-06	0.00E+00
OFFSITE	7.40E-09	6.57E-08	8.07E-08
OFFSITE - UPRR	0.00E+00	7.28E-11	0.00E+00

**ASSUMPTIONS**

Area Project Site	onsite	offsite	
Area UPRR	110,546.50	58076.4	m2
AERMOD segment (Phase 1+2)	319.5	21609.6	
AERMOD segment (UPRR)	2393.1	meters	
meters to mile	675.3	meters	
	0.000621371		



Source Inputs

Union City Population	75,343
Alameda County Population	1,663,000

offroad sources

Release Height (RH)	4.1 m
Vertical Dimension	3.81 m
Elevation	0 m

onroad/truck sources

Release Height (RH)	3.4 m	EPA PM Hostpot, Appx J
Vertical Dimension	3.16 m	CAPCOA 2009/AERMOD (RH/2.15)
Elevation	0 m	

receptor height (m) 0 Default

Met from Oakland Airport

PM2.5 Exhaust (Offroad+Hauling+Vendor)= DPM

Construction 8am-8pm

**Health Risk - Dose and Risk Factors and Values**

**Dose factors**

$$\text{Dose-air} = C_p \times (\text{BR/BW}) \times A \times \text{EF} \times 10^4$$

$$\text{Dose-air} = (C_p \times \text{WAF}) \times (\text{BR/BW}) \times A \times \text{EF} \times 10^4$$

	3rd trimester	0<2	2<9	2<16	16<30	16<70	source
Daily Breath Rate (BR/BW) (L/kg-day)							
Residential	361	1090	631	572	261	233	OEHHA 2015, Table 5-6, 95th %ile for 3rdtri-2yrs old; 80th for other age groups
Recreational	240	1200	640	520	240	230	OEHHA 2015, Table 5.8 (95th, moderate) for all bins but 3rd tri, which was taken from SIVAPCD's draft guidance
School	240	1200	640	520	240	230	SIVAPCD for 3rd tri; 95th percentile for all
A	1	1	1	1	1	1	OEHHA 2015, page 5-24
EF, Exposure frequency (unitless), days/365 days							
Residential	0.96	0.96	0.96	0.96	0.96	0.96	OEHHA 2015, page 5-24, 350 days/yr
Recreational	0.036	0.036	0.036	0.036	0.036	0.036	3x/week, 2 hours/day, for 9 years
School	0.12	0.12	0.12	0.12	0.12	0.12	180 days/yr, 6 hours/day (BAAQMD 2016)
Conversion Factor	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	(mg/Lg + m3/L)

**Risk Factors**

$$\text{RfNKin-res} = \text{Dose}_{\text{air}} \times \text{CFE} \times \text{CAF} \times \text{ANF} \times \text{EDAT} \times \text{FAH}$$

	3rd trimester	0<2	2<9	2<16	16<30	16<70	source
CPE, DPM ((mg/kg-day) <sup>-1</sup> )	1.1	1.1	1.1	1.1	1.1	1.1	OEHHA 2015, Table 7.1
Average Age Sensitivity Factor	10	10	3	3	1	1	OEHHA 2015, Table 8.3
AT, Average Time (days)	70	70	70	70	70	70	Averaging time for lifetime cancer risk
FAH	1.00	1.00	1.00	1.00	1.00	1.00	OEHHA 2015, Table 8.4: Use FAH = 1 if a school is within the 1x10-6 (or greater) cancer risk isopleth
ED, Exposure Duration (years)	0.25	2	2.4	-	-	-	Equation 8.2.4 A, OEHHA 2015
Adjustment Factor							
Residential	1.00	1.00	1.00	1.00	1.00	1.00	OEHHA 2015, Page 4-44 and Equation 4.1; exposure is adjusted upward to account for overlapping daytime exposure.
Recreational	3.36	3.36	3.36	3.36	3.36	3.36	
School	3.36	3.36	3.36	3.36	3.36	3.36	

**Hazard Index**

Chronic Inhalation Reference Exposure Level, respiratory, DPM

5

OEHHA 2015, Table 6.3

**Summary of Onsite Mitigated Cancer and Noncancer Health Risks and PM2.5 Concentrations for the MEI**

Receptor	Cancer Risk (per million)	Chronic HI	PM2.5 (ug/m3)
MEI	3.57	0.002	0.21
Threshold	10.00	1.00	0.30

	DPM Reduction With Mitigation	DPM Reduction With Mitigatoin	PM2.5 Reduction With Mitigation
Reduction	90%	90%	17%
MEI (Unmitigated)	35.6	0.021	0.259

Rec ID	Detail	Receptors			Concentration ug/m3			Dose Inhalation by Bin				Cancer Risk by Bin				Sum of Cancer Risk		Chronic HI (max annual)	Max PM2.5 Total (ug/m3)
		X	Y	Type	3RDTRI	0_2	2_9	3RDTRI	0_2	2_9	3RDTRI	0_2	2_9	Summed Risk	Cases Per Million				
Res_Highest_DPM1	Residence	586972.88	4161357.87	Residential	4.26E-03	1.05E-02	6.24E-03	1.5E-06	1.1E-05	3.8E-06	5.8E-08	3.5E-06	5.2E-08	4E-06	3.57	0.0021	0.0282		
Res_Highest_DPM2	Residence	586972.88	4161357.87	Residential	4.25E-03	1.05E-02	6.23E-03	1.5E-06	1.1E-05	3.8E-06	5.8E-08	3.4E-06	5.2E-08	4E-06	3.56	0.0021	0.0277		
Res_Highest_DPM3	Residence	586952.88	4161357.87	Residential	4.25E-03	1.05E-02	6.22E-03	1.5E-06	1.1E-05	3.8E-06	5.8E-08	3.4E-06	5.2E-08	4E-06	3.56	0.0021	0.0287		
Res_Highest_DPM4	Residence	586972.88	4161357.87	Residential	4.26E-03	1.05E-02	6.24E-03	1.5E-06	1.1E-05	3.8E-06	5.8E-08	3.4E-06	5.2E-08	4E-06	3.57	0.0021	0.0282		
Res_Highest_DPM5	Residence	586972.88	4161357.87	Residential	4.25E-03	1.05E-02	6.23E-03	1.5E-06	1.1E-05	3.8E-06	5.8E-08	3.4E-06	5.2E-08	4E-06	3.56	0.0021	0.0277		
Res_Highest_DPM6	Residence	586952.88	4161357.87	Residential	4.25E-03	1.05E-02	6.22E-03	1.5E-06	1.1E-05	3.8E-06	5.8E-08	3.4E-06	5.2E-08	4E-06	3.56	0.0021	0.0287		
Res_Highest_DPM7	Residence	586972.88	4161357.87	Residential	4.26E-03	1.05E-02	6.24E-03	1.5E-06	1.1E-05	3.8E-06	5.8E-08	3.5E-06	5.2E-08	4E-06	3.57	0.0021	0.0282		
Res_Highest_DPM8	Residence	586972.88	4161357.87	Residential	4.25E-03	1.05E-02	6.23E-03	1.5E-06	1.1E-05	3.8E-06	5.8E-08	3.4E-06	5.2E-08	4E-06	3.56	0.0021	0.0277		
Res_Highest_DPM9	Residence	586992.88	4161357.87	Residential	4.25E-03	1.05E-02	6.23E-03	1.5E-06	1.1E-05	3.8E-06	5.8E-08	3.4E-06	5.2E-08	4E-06	3.56	0.0021	0.0277		
Res_Highest_PM1	Residence	586952.88	4161357.87	Residential	4.25E-03	1.05E-02	6.22E-03	1.5E-06	1.1E-05	3.8E-06	5.8E-08	3.4E-06	5.2E-08	4E-06	3.56	0.0021	0.0287		
Res_Highest_PM2	Residence	586972.88	4161357.87	Residential	4.26E-03	1.05E-02	6.24E-03	1.5E-06	1.1E-05	3.8E-06	5.8E-08	3.5E-06	5.2E-08	4E-06	3.57	0.0021	0.0282		
Res_Highest_PM3	Residence	586952.88	4161357.87	Residential	4.24E-03	1.05E-02	6.21E-03	1.5E-06	1.1E-05	3.8E-06	5.8E-08	3.4E-06	5.2E-08	4E-06	3.55	0.0021	0.0282		
Res_Highest_PM4	Residence	586972.88	4161357.87	Residential	4.26E-03	1.05E-02	6.24E-03	1.5E-06	1.1E-05	3.8E-06	5.8E-08	3.5E-06	5.2E-08	4E-06	3.57	0.0021	0.0282		
Res_Highest_PM5	Residence	586972.88	4161357.87	Residential	4.25E-03	1.05E-02	6.23E-03	1.5E-06	1.1E-05	3.8E-06	5.8E-08	3.4E-06	5.2E-08	4E-06	3.56	0.0021	0.0277		
Res_Highest_PM6	Residence	586952.88	4161357.87	Residential	4.25E-03	1.05E-02	6.22E-03	1.5E-06	1.1E-05	3.8E-06	5.8E-08	3.4E-06	5.2E-08	4E-06	3.56	0.0021	0.0287		
Res_Highest_PM7	Residence	586972.88	4161357.87	Residential	4.26E-03	1.05E-02	6.24E-03	1.5E-06	1.1E-05	3.8E-06	5.8E-08	3.5E-06	5.2E-08	4E-06	3.57	0.0021	0.0282		
Res_Highest_PM8	Residence	586972.88	4161357.87	Residential	4.25E-03	1.05E-02	6.23E-03	1.5E-06	1.1E-05	3.8E-06	5.8E-08	3.4E-06	5.2E-08	4E-06	3.56	0.0021	0.0277		
Res_Highest_PM9	Residence	586952.88	4161357.87	Residential	4.25E-03	1.05E-02	6.22E-03	1.5E-06	1.1E-05	3.8E-06	5.8E-08	3.4E-06	5.2E-08	4E-06	3.56	0.0021	0.0287		
Res_Highest_Dust1	Residence	586772.88	4161637.87	Residential	2.22E-03	5.49E-03	3.26E-03	7.7E-07	5.7E-06	2.0E-06	3.0E-08	1.8E-06	2.7E-08	2E-06	1.86	0.0011	0.2148		
Res_Highest_Dust2	Residence	586712.88	4161637.87	Residential	8.80E-04	2.17E-03	1.29E-03	3.0E-07	2.3E-06	7.8E-07	1.2E-08	7.1E-07	1.1E-08	7E-07	0.74	0.0004	0.2068		
Res_Highest_Dust3	Residence	586692.88	4161557.87	Residential	1.09E-03	2.68E-03	1.59E-03	3.8E-07	2.8E-06	9.6E-07	1.5E-08	8.8E-07	1.3E-08	9E-07	0.91	0.0005	0.2050		
Res_Highest_Dust4	Residence	586772.88	4161637.87	Residential	2.22E-03	5.49E-03	3.26E-03	7.7E-07	5.7E-06	2.0E-06	3.0E-08	1.8E-06	2.7E-08	2E-06	1.86	0.0011	0.2148		
Res_Highest_Dust5	Residence	586712.88	4161637.87	Residential	8.80E-04	2.17E-03	1.29E-03	3.0E-07	2.3E-06	7.8E-07	1.2E-08	7.1E-07	1.1E-08	7E-07	0.74	0.0004	0.2068		
Res_Highest_Dust6	Residence	586692.88	4161557.87	Residential	1.09E-03	2.68E-03	1.59E-03	3.8E-07	2.8E-06	9.6E-07	1.5E-08	8.8E-07	1.3E-08	9E-07	0.91	0.0005	0.2050		
Res_Highest_Dust7	Residence	586772.88	4161637.87	Residential	2.22E-03	5.49E-03	3.26E-03	7.7E-07	5.7E-06	2.0E-06	3.0E-08	1.8E-06	2.7E-08	2E-06	1.86	0.0011	0.2148		
Res_Highest_Dust8	Residence	586712.88	4161637.87	Residential	8.80E-04	2.17E-03	1.29E-03	3.0E-07	2.3E-06	7.8E-07	1.2E-08	7.1E-07	1.1E-08	7E-07	0.74	0.0004	0.2068		
Res_Highest_Dust9	Residence	586692.88	4161557.87	Residential	1.09E-03	2.68E-03	1.59E-03	3.8E-07	2.8E-06	9.6E-07	1.5E-08	8.8E-07	1.3E-08	9E-07	0.91	0.0005	0.2050		
														3.57	0.0021	0.2148			

**DPM SUMMARY (g/sec/m2)**

Source	3rd tri	Q42	2-9
ONSITE	2.90E-09	7.16E-09	4.23E-09
ONSITE - UPRR	0.00E+00	0.00E+00	0.00E+00
OFFSITE	2.17E-12	4.42E-12	2.24E-12
OFFSITE - UPRR	0.00E+00	0.00E+00	0.00E+00

**ASSUMPTIONS**

Area Project Site	onsite	offsite	
Area UPRR	110,546.50	35896.5	m2
AERMOD segment (Phase 1+2)	319.5	21609.6	meters
AERMOD segment (UPRR)	2393.1		meters
meters to mile	675.3		
	0.000621371		

**PM2.5 Ex SUMMARY (g/sec/m2)**

Source	3rd tri	Qc2	2-9
ONSITE	2.90E-09	1.10E-08	8.13E-09
ONSITE - UPRR	0.00E+00	0.00E+00	0.00E+00
OFFSITE	1.34E-09	2.09E-09	7.50E-10
OFFSITE - UPRR	0.00E+00	0.00E+00	0.00E+00

**ASSUMPTIONS**

Area Project Site	onsite	offsite	
Area UPRR	110,546.50	35896.5	m2
AERMOD segment (Phase 1+2)	319.5	21609.6	
AERMOD segment (UPRR)	2393.1	meters	
meters to mile	675.3	meters	
	0.000621371		

**PM2.5 DUST SUMMARY (g/sec/m2)**

Source	3rd tri	Qc2	2-9
ONSITE	0.00E+00	0.00E+00	0.00E+00
ONSITE - UPRR	0.00E+00	0.00E+00	0.00E+00
OFFSITE	6.34E-08	9.96E-08	3.63E-08
OFFSITE - UPRR	0.00E+00	0.00E+00	0.00E+00

**ASSUMPTIONS**

Area Project Site	onsite	offsite	
Area UPRR	110,546.50	35896.5	m2
AERMOD segment (Phase 1+2)	319.5	21609.6	
AERMOD segment (UPRR)	2393.1	meters	
meters to mile	675.3	meters	
	0.000621371		

**Health Risk - Dose and Risk Factors and Values**

**Dose factors**

$$\text{Dose-air} = C_p \times (\text{BR/BW}) \times A \times \text{EF} \times 10^4$$

$$\text{Dose-air} = (C_p \times \text{WAF}) \times (\text{BR/BW}) \times A \times \text{EF} \times 10^4$$

	3rd trimester	0<2	2<9	2<16	16<30	16<70	source
Daily Breath Rate (BR/BW) (L/kg-day)							
Residential	361	1090	631	572	261	233	OEHHA 2015, Table 5-6, 95th %ile for 3rdtri-2yrs old; 80th for other age groups
Recreational	240	1200	640	520	240	230	OEHHA 2015, Table 5.8 (95th, moderate) for all bins but 3rd tri, which was taken from SIVAPCD's draft guidance
School	240	1200	640	520	240	230	SIVAPCD for 3rd tri; 95th percentile for all
A	1	1	1	1	1	1	OEHHA 2015, page 5-24
EF, Exposure frequency (unitless), days/365 days							
Residential	0.96	0.96	0.96	0.96	0.96	0.96	OEHHA 2015, page 5-24, 350 days/yr
Recreational	0.036	0.036	0.036	0.036	0.036	0.036	3x/week, 2 hours/day, for 9 years
School	0.12	0.12	0.12	0.12	0.12	0.12	180 days/yr, 6 hours/day (BAAQMD 2016)
Conversion Factor	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	(mg/Lg + m3/L)

**Risk Factors**

$$\text{RfNKin-ess} = \text{Dose}_{\text{air}} \times \text{CFE} \times \text{CAF} \times \text{ANF} \times \text{ED/AT} \times \text{FAH}$$

	3rd trimester	0<2	2<9	2<16	16<30	16<70	source
CPE, DPM ((mg/kg-day) <sup>-1</sup> )	1.1	1.1	1.1	1.1	1.1	1.1	OEHHA 2015, Table 7.1
Average Age Sensitivity Factor	10	10	3	3	1	1	OEHHA 2015, Table 8.3
AT, Average Time (days)	70	70	70	70	70	70	Averaging time for lifetime cancer risk
FAH	1.00	1.00	1.00	1.00	1.00	1.00	OEHHA 2015, Table 8.4: Use FAH = 1 if a school is within the 1x10 <sup>-6</sup> (or greater) cancer risk isopleth
ED, Exposure Duration (years)	0.25	2	0.3	-	-	-	Equation 8.2.4 A, OEHHA 2015
Adjustment Factor							
Residential	1.00	1.00	1.00	1.00	1.00	1.00	OEHHA 2015, Page 4-44 and Equation 4.1; exposure is adjusted upward to account for overlapping daytime exposure.
Recreational	3.36	3.36	3.36	3.36	3.36	3.36	
School	3.36	3.36	3.36	3.36	3.36	3.36	

**Hazard Index**

Chronic Inhalation Reference Exposure Level, respiratory, DPM

5

OEHHA 2015, Table 6.3



Source Inputs

Union City Population	75,343
Alameda County Population	1,663,000

offroad sources

Release Height (RH)	4.1 m
Vertical Dimension	3.81 m
Elevation	0 m

onroad/truck sources

Release Height (RH)	3.4 m	EPA PM Hostpot, Appx J
Vertical Dimension	3.16 m	CAPCOA 2009/AERMOD (RH/2.15)
Elevation	0 m	

receptor height (m) 0 Default

Met from Oakland Airport

PM2.5 Exhaust (Offroad+Hauling+Vendor)= DPM

**Operational Risk Calcs**

Receptor Type	Residential	3rd trimester	0<2	2<9	2<16	16<30	16-70	Total
AERMOD CONCENTRATION (ug/m <sup>3</sup> )	0.00005							
Dose		1.73E-08	5.23E-08	3.03E-08	2.74E-08	1.25E-08		
Risk		0.00	1.64E-08	0.00E+00	1.81E-08	2.75E-09	0.00E+00	3.8E-08
Risk per million		0.00	0.016	0.00	0.02	0.00	0.00	0.04
Chronic HI		-	-	-	-	-	-	0.000010
PM2.5		-	-	-	-	-	-	0.00005

**DPM HRA Factors and values - Construction**

Dose fa	Residential	3rd trimester	0<2	2<9	9<16	16<30	16-70	source
$Dose_{air} = C_{air} \times (BR/ BW) \times A \times EF \times 10^{-6}$								
Dose factors for calcs -->	Residential	3.46E-04	1.05E-03	6.05E-04	5.48E-04	2.50E-04	2.23E-04	dose factors for lookup in risk calcs
Daily Breath Rate (L/kg-day)	Residential	361	1090	631	572	261	233	OEHHA 2015, Table 5.6, 95th %ile for 3rdtri-2yrs old; 80th for other age groups
A		1	1	1	1	1	1	OEHHA 2015, page 5-24
EF, Exposure frequency (unitless), days/365 days	Residential	0.96	0.96	0.96	0.96	0.96	0.96	OEHHA 2015, page 5-24, 350 days/yr
Conversion Factor		1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	(mg/ug + m3/L)

Risk Fac	Residential	3.93E-02	3.14E-01	0.00E+00	6.60E-01	2.20E-01	0.00E+00	risk factors for lookup in risk calcs
$RISK_{inh-res} = DOSE_{air} \times CPF \times ASF \times EDAT \times FAH$								
Dose factors for calcs -->	Residential	3.93E-02	3.14E-01	0.00E+00	6.60E-01	2.20E-01	0.00E+00	risk factors for lookup in risk calcs
CPF, DPM ((mg/kg-day) <sup>-1</sup> )		1.1	1.1	1.1	1.1	1.1	1.1	OEHHA 2015, Table 7.1
Average Age Sensitivity Factor		10	10	3	3	1	1	OEHHA 2015, Table 8.3
AT, Average Time (years)		70	70	70	70	70	70	Averaging time for lifetime cancer risk
FAH		1.00	1.00	1.00	1.00	1.00	1.00	OEHHA 2015, Table 8.4: Use FAH = 1 if a school is within the 1x10-6 (or greater) cancer risk isopleth
ED, Exposure Duration (years)	Residential	0.25	2.00		14	14	0	OEHHA 2015, Table 6.3

Chronic Inhalation Reference Exposure Level, respiratory, DPM	5
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* AERMOD ( 19191): C:\USERS\35578\DESKTOP\STATION EAST
CONSTRUCTION HRA_1\STATION EAST      04/20/20
* AERMET ( 14134):
12:30:06
* MODELING OPTIONS USED:  RegDEFAULT CONC  ELEV  URBAN
*      PLOT FILE OF ANNUAL VALUES AVERAGED ACROSS  5 YEARS
FOR SOURCE GROUP: ALL
*      FOR A TOTAL OF  1912 RECEPTORS.
*      FORMAT:
(3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)
*      X          Y          AVERAGE CONC      ZELEV      ZHILL
ZFLAG      AVE      GRP      NUM YRS      NET ID
*
_____
587419.49000 4161213.83000      0.00001      17.72      192.17
0.00 ANNUAL ALL      00000005
587419.49000 4161233.83000      0.00001      18.08      192.17
0.00 ANNUAL ALL      00000005
587439.49000 4161233.83000      0.00001      18.32      192.17
0.00 ANNUAL ALL      00000005
587419.49000 4161253.83000      0.00001      18.14      192.17
0.00 ANNUAL ALL      00000005
587439.49000 4161253.83000      0.00001      18.36      192.17
0.00 ANNUAL ALL      00000005
587459.49000 4161253.83000      0.00001      18.26      192.17
0.00 ANNUAL ALL      00000005
587419.49000 4161273.83000      0.00001      17.86      192.17
0.00 ANNUAL ALL      00000005
587439.49000 4161273.83000      0.00001      18.15      192.17
0.00 ANNUAL ALL      00000005
587459.49000 4161273.83000      0.00001      18.47      192.17
0.00 ANNUAL ALL      00000005
587479.49000 4161273.83000      0.00001      19.17      192.17
0.00 ANNUAL ALL      00000005
587419.49000 4161293.83000      0.00001      18.42      192.17
0.00 ANNUAL ALL      00000005
587439.49000 4161293.83000      0.00001      18.49      192.17
0.00 ANNUAL ALL      00000005
587459.49000 4161293.83000      0.00001      18.96      192.17
0.00 ANNUAL ALL      00000005
587479.49000 4161293.83000      0.00001      19.52      192.17
0.00 ANNUAL ALL      00000005
587499.49000 4161293.83000      0.00001      19.97      192.17
0.00 ANNUAL ALL      00000005
587419.49000 4161313.83000      0.00001      19.10      192.17
0.00 ANNUAL ALL      00000005
587439.49000 4161313.83000      0.00001      19.08      192.17
0.00 ANNUAL ALL      00000005
587459.49000 4161313.83000      0.00001      19.51      192.17
0.00 ANNUAL ALL      00000005
587479.49000 4161313.83000      0.00001      19.91      192.17
0.00 ANNUAL ALL      00000005

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0.00	ANNUAL ALL 00000005			
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0.00	ANNUAL ALL 00000005			
587479.49000	4161333.83000	0.00001	20.27	192.17
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0.00	ANNUAL ALL 00000005			
587479.49000	4161353.83000	0.00001	21.17	192.17
0.00	ANNUAL ALL 00000005			
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0.00	ANNUAL ALL 00000005			
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587479.49000	4161373.83000	0.00001	21.47	192.17
0.00	ANNUAL ALL 00000005			
587499.49000	4161373.83000	0.00001	21.15	192.17
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0.00	ANNUAL ALL 00000005			

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0.00	ANNUAL ALL 00000005			
587479.49000	4161393.83000	0.00001	21.07	192.17
0.00	ANNUAL ALL 00000005			
587499.49000	4161393.83000	0.00001	21.11	192.17
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586837.58000	4161816.47000	0.00001	22.06	192.17
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0.00	ANNUAL ALL 00000005			
586977.58000	4161816.47000	0.00001	21.63	192.17
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587017.58000	4161816.47000	0.00001	21.31	192.17
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587037.58000	4161816.47000	0.00001	21.69	192.17
0.00	ANNUAL ALL 00000005			
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587097.58000	4161836.47000	0.00001	20.91	192.17
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586857.58000	4161856.47000	0.00001	22.79	192.17
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586877.58000	4161856.47000	0.00001	22.72	192.17
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586957.58000	4161856.47000	0.00001	21.73	192.17
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586997.58000	4161916.47000	0.00001	21.53	192.17
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587017.58000	4161916.47000	0.00001	20.96	192.17
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587057.58000	4161916.47000	0.00001	21.91	192.17
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0.00	ANNUAL ALL 00000005			



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0.00	ANNUAL ALL 00000005			
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0.00	ANNUAL ALL 00000005			
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586877.58000	4161956.47000	0.00000	23.74	192.17
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586897.58000	4161956.47000	0.00000	23.99	192.17
0.00	ANNUAL ALL 00000005			
586917.58000	4161956.47000	0.00000	24.07	192.17
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586937.58000	4161956.47000	0.00000	23.04	192.17
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0.00	ANNUAL ALL 00000005			
586837.58000	4161976.47000	0.00000	24.14	192.17
0.00	ANNUAL ALL 00000005			
586857.58000	4161976.47000	0.00000	23.76	192.17
0.00	ANNUAL ALL 00000005			

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586917.58000	4161976.47000	0.00000	24.13	192.17
0.00	ANNUAL ALL 00000005			
586937.58000	4161976.47000	0.00000	23.58	192.17
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586957.58000	4161976.47000	0.00000	22.40	192.17
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0.00	ANNUAL ALL 00000005			
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0.00	ANNUAL ALL 00000005			
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0.00	ANNUAL ALL 00000005			
586837.58000	4161996.47000	0.00000	24.13	192.17
0.00	ANNUAL ALL 00000005			
586857.58000	4161996.47000	0.00000	24.35	192.17
0.00	ANNUAL ALL 00000005			
586877.58000	4161996.47000	0.00000	24.20	192.17
0.00	ANNUAL ALL 00000005			
586897.58000	4161996.47000	0.00000	24.12	192.17
0.00	ANNUAL ALL 00000005			
586917.58000	4161996.47000	0.00000	24.14	192.17
0.00	ANNUAL ALL 00000005			
586937.58000	4161996.47000	0.00000	23.66	192.17
0.00	ANNUAL ALL 00000005			
586957.58000	4161996.47000	0.00000	22.93	192.17
0.00	ANNUAL ALL 00000005			
586977.58000	4161996.47000	0.00000	23.13	192.17
0.00	ANNUAL ALL 00000005			
586817.58000	4162016.47000	0.00000	24.47	192.17
0.00	ANNUAL ALL 00000005			
586837.58000	4162016.47000	0.00000	24.16	192.17
0.00	ANNUAL ALL 00000005			
586857.58000	4162016.47000	0.00000	24.06	192.17
0.00	ANNUAL ALL 00000005			
586877.58000	4162016.47000	0.00000	24.03	192.17
0.00	ANNUAL ALL 00000005			
586817.58000	4162196.47000	0.00000	27.38	192.17
0.00	ANNUAL ALL 00000005			
586416.73000	4161818.30000	0.00000	23.00	23.00
0.00	ANNUAL ALL 00000005			
586436.73000	4161818.30000	0.00000	23.23	23.23
0.00	ANNUAL ALL 00000005			
586456.73000	4161818.30000	0.00000	23.51	24.35
0.00	ANNUAL ALL 00000005			
586476.73000	4161818.30000	0.00000	24.63	24.63
0.00	ANNUAL ALL 00000005			
586496.73000	4161818.30000	0.00000	24.10	24.10
0.00	ANNUAL ALL 00000005			

586516.73000	4161818.30000	0.00000	24.01	181.37
0.00	ANNUAL ALL 00000005			
586536.73000	4161818.30000	0.00000	23.91	181.37
0.00	ANNUAL ALL 00000005			
586556.73000	4161818.30000	0.00000	24.02	181.37
0.00	ANNUAL ALL 00000005			
586576.73000	4161818.30000	0.00001	24.35	181.37
0.00	ANNUAL ALL 00000005			
586596.73000	4161818.30000	0.00001	24.24	181.37
0.00	ANNUAL ALL 00000005			
586616.73000	4161818.30000	0.00001	24.07	191.71
0.00	ANNUAL ALL 00000005			
586636.73000	4161818.30000	0.00001	24.01	192.17
0.00	ANNUAL ALL 00000005			
586656.73000	4161818.30000	0.00001	23.79	192.17
0.00	ANNUAL ALL 00000005			
586676.73000	4161818.30000	0.00001	23.75	192.17
0.00	ANNUAL ALL 00000005			
586696.73000	4161818.30000	0.00001	23.37	192.17
0.00	ANNUAL ALL 00000005			
586716.73000	4161818.30000	0.00001	23.54	192.17
0.00	ANNUAL ALL 00000005			
586436.73000	4161838.30000	0.00000	23.31	23.31
0.00	ANNUAL ALL 00000005			
586456.73000	4161838.30000	0.00000	24.08	24.08
0.00	ANNUAL ALL 00000005			
586476.73000	4161838.30000	0.00000	24.93	24.93
0.00	ANNUAL ALL 00000005			
586496.73000	4161838.30000	0.00000	24.79	24.79
0.00	ANNUAL ALL 00000005			
586516.73000	4161838.30000	0.00000	24.18	181.37
0.00	ANNUAL ALL 00000005			
586536.73000	4161838.30000	0.00000	24.08	181.37
0.00	ANNUAL ALL 00000005			
586556.73000	4161838.30000	0.00000	24.21	181.37
0.00	ANNUAL ALL 00000005			
586576.73000	4161838.30000	0.00000	24.57	181.37
0.00	ANNUAL ALL 00000005			
586596.73000	4161838.30000	0.00001	24.79	181.37
0.00	ANNUAL ALL 00000005			
586616.73000	4161838.30000	0.00001	24.26	192.17
0.00	ANNUAL ALL 00000005			
586636.73000	4161838.30000	0.00001	24.13	192.17
0.00	ANNUAL ALL 00000005			
586656.73000	4161838.30000	0.00001	24.02	192.17
0.00	ANNUAL ALL 00000005			
586676.73000	4161838.30000	0.00001	23.95	192.17
0.00	ANNUAL ALL 00000005			
586696.73000	4161838.30000	0.00001	23.61	192.17
0.00	ANNUAL ALL 00000005			
586716.73000	4161838.30000	0.00001	23.84	192.17
0.00	ANNUAL ALL 00000005			

586736.73000	4161838.30000	0.00001	23.45	192.17
0.00 ANNUAL ALL	00000005			
586776.73000	4161838.30000	0.00001	23.17	192.17
0.00 ANNUAL ALL	00000005			
586456.73000	4161858.30000	0.00000	23.84	23.84
0.00 ANNUAL ALL	00000005			
586476.73000	4161858.30000	0.00000	24.57	24.57
0.00 ANNUAL ALL	00000005			
586496.73000	4161858.30000	0.00000	24.67	181.17
0.00 ANNUAL ALL	00000005			
586516.73000	4161858.30000	0.00000	24.72	181.37
0.00 ANNUAL ALL	00000005			
586536.73000	4161858.30000	0.00000	24.36	181.37
0.00 ANNUAL ALL	00000005			
586556.73000	4161858.30000	0.00000	24.50	181.37
0.00 ANNUAL ALL	00000005			
586576.73000	4161858.30000	0.00000	24.80	181.37
0.00 ANNUAL ALL	00000005			
586596.73000	4161858.30000	0.00000	25.03	181.37
0.00 ANNUAL ALL	00000005			
586616.73000	4161858.30000	0.00001	24.49	192.17
0.00 ANNUAL ALL	00000005			
586636.73000	4161858.30000	0.00001	24.33	192.17
0.00 ANNUAL ALL	00000005			
586656.73000	4161858.30000	0.00001	24.13	192.17
0.00 ANNUAL ALL	00000005			
586676.73000	4161858.30000	0.00001	24.06	192.17
0.00 ANNUAL ALL	00000005			
586696.73000	4161858.30000	0.00001	23.76	192.17
0.00 ANNUAL ALL	00000005			
586716.73000	4161858.30000	0.00001	23.49	192.17
0.00 ANNUAL ALL	00000005			
586736.73000	4161858.30000	0.00001	23.34	192.17
0.00 ANNUAL ALL	00000005			
586776.73000	4161858.30000	0.00001	23.27	192.17
0.00 ANNUAL ALL	00000005			
586476.73000	4161878.30000	0.00000	24.33	24.33
0.00 ANNUAL ALL	00000005			
586496.73000	4161878.30000	0.00000	24.53	181.37
0.00 ANNUAL ALL	00000005			
586516.73000	4161878.30000	0.00000	24.92	181.37
0.00 ANNUAL ALL	00000005			
586536.73000	4161878.30000	0.00000	24.77	181.37
0.00 ANNUAL ALL	00000005			
586556.73000	4161878.30000	0.00000	24.90	181.37
0.00 ANNUAL ALL	00000005			
586576.73000	4161878.30000	0.00000	24.99	181.37
0.00 ANNUAL ALL	00000005			
586596.73000	4161878.30000	0.00000	24.83	181.37
0.00 ANNUAL ALL	00000005			
586616.73000	4161878.30000	0.00000	24.64	192.17
0.00 ANNUAL ALL	00000005			

586636.73000	4161878.30000	0.00000	24.47	192.17
0.00	ANNUAL ALL 00000005			
586656.73000	4161878.30000	0.00001	24.18	192.17
0.00	ANNUAL ALL 00000005			
586676.73000	4161878.30000	0.00001	24.13	192.17
0.00	ANNUAL ALL 00000005			
586696.73000	4161878.30000	0.00001	23.83	192.17
0.00	ANNUAL ALL 00000005			
586716.73000	4161878.30000	0.00001	23.76	192.17
0.00	ANNUAL ALL 00000005			
586736.73000	4161878.30000	0.00001	23.52	192.17
0.00	ANNUAL ALL 00000005			
586496.73000	4161898.30000	0.00000	24.62	181.37
0.00	ANNUAL ALL 00000005			
586516.73000	4161898.30000	0.00000	24.84	181.37
0.00	ANNUAL ALL 00000005			
586536.73000	4161898.30000	0.00000	24.98	181.37
0.00	ANNUAL ALL 00000005			
586556.73000	4161898.30000	0.00000	24.99	181.37
0.00	ANNUAL ALL 00000005			
586576.73000	4161898.30000	0.00000	25.06	181.37
0.00	ANNUAL ALL 00000005			
586596.73000	4161898.30000	0.00000	24.95	192.17
0.00	ANNUAL ALL 00000005			
586616.73000	4161898.30000	0.00000	24.93	192.17
0.00	ANNUAL ALL 00000005			
586636.73000	4161898.30000	0.00000	24.66	192.17
0.00	ANNUAL ALL 00000005			
586656.73000	4161898.30000	0.00000	24.36	192.17
0.00	ANNUAL ALL 00000005			
586676.73000	4161898.30000	0.00000	24.17	192.17
0.00	ANNUAL ALL 00000005			
586696.73000	4161898.30000	0.00000	24.08	192.17
0.00	ANNUAL ALL 00000005			
586716.73000	4161898.30000	0.00000	23.99	192.17
0.00	ANNUAL ALL 00000005			
586736.73000	4161898.30000	0.00000	23.70	192.17
0.00	ANNUAL ALL 00000005			
586536.73000	4161918.30000	0.00000	25.10	181.37
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586556.73000	4161918.30000	0.00000	25.14	181.37
0.00	ANNUAL ALL 00000005			
586576.73000	4161918.30000	0.00000	25.22	181.37
0.00	ANNUAL ALL 00000005			
586596.73000	4161918.30000	0.00000	24.96	192.17
0.00	ANNUAL ALL 00000005			
586616.73000	4161918.30000	0.00000	24.90	192.17
0.00	ANNUAL ALL 00000005			
586636.73000	4161918.30000	0.00000	24.87	192.17
0.00	ANNUAL ALL 00000005			
586656.73000	4161918.30000	0.00000	24.58	192.17
0.00	ANNUAL ALL 00000005			

586676.73000	4161918.30000	0.00000	24.36	192.17
0.00	ANNUAL ALL 00000005			
586696.73000	4161918.30000	0.00000	24.09	192.17
0.00	ANNUAL ALL 00000005			
586716.73000	4161918.30000	0.00000	24.00	192.17
0.00	ANNUAL ALL 00000005			
586736.73000	4161918.30000	0.00000	23.98	192.17
0.00	ANNUAL ALL 00000005			
586756.73000	4161918.30000	0.00000	23.96	192.17
0.00	ANNUAL ALL 00000005			
586556.73000	4161938.30000	0.00000	25.30	181.37
0.00	ANNUAL ALL 00000005			
586576.73000	4161938.30000	0.00000	25.50	181.37
0.00	ANNUAL ALL 00000005			
586596.73000	4161938.30000	0.00000	25.19	192.17
0.00	ANNUAL ALL 00000005			
586616.73000	4161938.30000	0.00000	25.02	192.17
0.00	ANNUAL ALL 00000005			
586636.73000	4161938.30000	0.00000	24.82	192.17
0.00	ANNUAL ALL 00000005			
586656.73000	4161938.30000	0.00000	24.63	192.17
0.00	ANNUAL ALL 00000005			
586676.73000	4161938.30000	0.00000	24.32	192.17
0.00	ANNUAL ALL 00000005			
586696.73000	4161938.30000	0.00000	24.31	192.17
0.00	ANNUAL ALL 00000005			
586716.73000	4161938.30000	0.00000	24.26	192.17
0.00	ANNUAL ALL 00000005			
586736.73000	4161938.30000	0.00000	23.94	192.17
0.00	ANNUAL ALL 00000005			
586756.73000	4161938.30000	0.00000	23.97	192.17
0.00	ANNUAL ALL 00000005			
586576.73000	4161958.30000	0.00000	25.43	191.71
0.00	ANNUAL ALL 00000005			
586596.73000	4161958.30000	0.00000	25.33	192.17
0.00	ANNUAL ALL 00000005			
586616.73000	4161958.30000	0.00000	25.19	192.17
0.00	ANNUAL ALL 00000005			
586636.73000	4161958.30000	0.00000	24.88	192.17
0.00	ANNUAL ALL 00000005			
586656.73000	4161958.30000	0.00000	24.69	192.17
0.00	ANNUAL ALL 00000005			
586676.73000	4161958.30000	0.00000	24.54	192.17
0.00	ANNUAL ALL 00000005			
586696.73000	4161958.30000	0.00000	24.41	192.17
0.00	ANNUAL ALL 00000005			
586716.73000	4161958.30000	0.00000	24.29	192.17
0.00	ANNUAL ALL 00000005			
586736.73000	4161958.30000	0.00000	24.03	192.17
0.00	ANNUAL ALL 00000005			
586756.73000	4161958.30000	0.00000	24.11	192.17
0.00	ANNUAL ALL 00000005			

586596.73000	4161978.30000	0.00000	25.35	192.17
0.00	ANNUAL ALL 00000005			
586616.73000	4161978.30000	0.00000	25.15	192.17
0.00	ANNUAL ALL 00000005			
586636.73000	4161978.30000	0.00000	24.96	192.17
0.00	ANNUAL ALL 00000005			
586656.73000	4161978.30000	0.00000	24.65	192.17
0.00	ANNUAL ALL 00000005			
586676.73000	4161978.30000	0.00000	24.57	192.17
0.00	ANNUAL ALL 00000005			
586696.73000	4161978.30000	0.00000	24.46	192.17
0.00	ANNUAL ALL 00000005			
586716.73000	4161978.30000	0.00000	24.31	192.17
0.00	ANNUAL ALL 00000005			
586736.73000	4161978.30000	0.00000	24.31	192.17
0.00	ANNUAL ALL 00000005			
586756.73000	4161978.30000	0.00000	24.37	192.17
0.00	ANNUAL ALL 00000005			
586616.73000	4161998.30000	0.00000	25.32	192.17
0.00	ANNUAL ALL 00000005			
586636.73000	4161998.30000	0.00000	25.28	192.17
0.00	ANNUAL ALL 00000005			
586656.73000	4161998.30000	0.00000	24.94	192.17
0.00	ANNUAL ALL 00000005			
586676.73000	4161998.30000	0.00000	24.85	192.17
0.00	ANNUAL ALL 00000005			
586696.73000	4161998.30000	0.00000	24.48	192.17
0.00	ANNUAL ALL 00000005			
586716.73000	4161998.30000	0.00000	24.54	192.17
0.00	ANNUAL ALL 00000005			
586736.73000	4161998.30000	0.00000	24.54	192.17
0.00	ANNUAL ALL 00000005			
586756.73000	4161998.30000	0.00000	24.53	192.17
0.00	ANNUAL ALL 00000005			
586776.73000	4161998.30000	0.00000	24.41	192.17
0.00	ANNUAL ALL 00000005			
586636.73000	4162018.30000	0.00000	25.40	192.17
0.00	ANNUAL ALL 00000005			
586656.73000	4162018.30000	0.00000	25.63	192.17
0.00	ANNUAL ALL 00000005			
586676.73000	4162018.30000	0.00000	24.93	192.17
0.00	ANNUAL ALL 00000005			
586696.73000	4162018.30000	0.00000	24.91	192.17
0.00	ANNUAL ALL 00000005			
586716.73000	4162018.30000	0.00000	24.79	192.17
0.00	ANNUAL ALL 00000005			
586736.73000	4162018.30000	0.00000	24.57	192.17
0.00	ANNUAL ALL 00000005			
586756.73000	4162018.30000	0.00000	24.59	192.17
0.00	ANNUAL ALL 00000005			
586776.73000	4162018.30000	0.00000	24.69	192.17
0.00	ANNUAL ALL 00000005			

586376.97000	4161416.66000	0.00000	19.12	19.12
0.00	ANNUAL ALL 00000005			
586396.97000	4161416.66000	0.00000	19.27	19.27
0.00	ANNUAL ALL 00000005			
586416.97000	4161416.66000	0.00000	19.60	19.60
0.00	ANNUAL ALL 00000005			
586436.97000	4161416.66000	0.00000	19.59	19.59
0.00	ANNUAL ALL 00000005			
586456.97000	4161416.66000	0.00000	19.79	19.79
0.00	ANNUAL ALL 00000005			
586476.97000	4161416.66000	0.00000	19.90	19.90
0.00	ANNUAL ALL 00000005			
586496.97000	4161416.66000	0.00000	20.04	20.04
0.00	ANNUAL ALL 00000005			
586516.97000	4161416.66000	0.00000	20.05	20.05
0.00	ANNUAL ALL 00000005			
586536.97000	4161416.66000	0.00000	20.16	20.16
0.00	ANNUAL ALL 00000005			
586556.97000	4161416.66000	0.00000	20.28	20.28
0.00	ANNUAL ALL 00000005			
586576.97000	4161416.66000	0.00000	20.36	20.36
0.00	ANNUAL ALL 00000005			
586376.97000	4161436.66000	0.00000	19.06	19.06
0.00	ANNUAL ALL 00000005			
586396.97000	4161436.66000	0.00000	19.45	19.45
0.00	ANNUAL ALL 00000005			
586416.97000	4161436.66000	0.00000	19.73	19.73
0.00	ANNUAL ALL 00000005			
586436.97000	4161436.66000	0.00000	19.79	19.79
0.00	ANNUAL ALL 00000005			
586456.97000	4161436.66000	0.00000	19.91	19.91
0.00	ANNUAL ALL 00000005			
586476.97000	4161436.66000	0.00000	20.00	20.00
0.00	ANNUAL ALL 00000005			
586496.97000	4161436.66000	0.00000	20.38	20.38
0.00	ANNUAL ALL 00000005			
586516.97000	4161436.66000	0.00000	20.49	20.49
0.00	ANNUAL ALL 00000005			
586536.97000	4161436.66000	0.00000	20.44	20.44
0.00	ANNUAL ALL 00000005			
586556.97000	4161436.66000	0.00000	20.76	20.76
0.00	ANNUAL ALL 00000005			
586576.97000	4161436.66000	0.00000	20.78	20.78
0.00	ANNUAL ALL 00000005			
586376.97000	4161456.66000	0.00000	19.19	19.19
0.00	ANNUAL ALL 00000005			
586396.97000	4161456.66000	0.00000	19.45	19.45
0.00	ANNUAL ALL 00000005			
586416.97000	4161456.66000	0.00000	19.86	19.86
0.00	ANNUAL ALL 00000005			
586436.97000	4161456.66000	0.00000	20.17	20.17
0.00	ANNUAL ALL 00000005			



586456.97000	4161456.66000	0.00000	20.23	20.23
0.00	ANNUAL ALL 00000005			
586476.97000	4161456.66000	0.00000	20.24	20.24
0.00	ANNUAL ALL 00000005			
586496.97000	4161456.66000	0.00000	20.35	20.35
0.00	ANNUAL ALL 00000005			
586516.97000	4161456.66000	0.00000	20.61	20.61
0.00	ANNUAL ALL 00000005			
586536.97000	4161456.66000	0.00000	20.61	20.61
0.00	ANNUAL ALL 00000005			
586556.97000	4161456.66000	0.00000	20.84	20.84
0.00	ANNUAL ALL 00000005			
586576.97000	4161456.66000	0.00000	20.77	20.77
0.00	ANNUAL ALL 00000005			
586376.97000	4161476.66000	0.00000	19.70	19.70
0.00	ANNUAL ALL 00000005			
586396.97000	4161476.66000	0.00000	19.76	19.76
0.00	ANNUAL ALL 00000005			
586416.97000	4161476.66000	0.00000	20.16	20.16
0.00	ANNUAL ALL 00000005			
586436.97000	4161476.66000	0.00000	20.45	20.45
0.00	ANNUAL ALL 00000005			
586456.97000	4161476.66000	0.00000	20.66	20.66
0.00	ANNUAL ALL 00000005			
586476.97000	4161476.66000	0.00000	20.55	20.55
0.00	ANNUAL ALL 00000005			
586496.97000	4161476.66000	0.00000	20.73	20.73
0.00	ANNUAL ALL 00000005			
586516.97000	4161476.66000	0.00000	20.68	20.68
0.00	ANNUAL ALL 00000005			
586536.97000	4161476.66000	0.00000	20.98	20.98
0.00	ANNUAL ALL 00000005			
586556.97000	4161476.66000	0.00000	20.74	20.74
0.00	ANNUAL ALL 00000005			
586576.97000	4161476.66000	0.00000	20.56	20.56
0.00	ANNUAL ALL 00000005			
586376.97000	4161496.66000	0.00000	20.10	20.10
0.00	ANNUAL ALL 00000005			
586396.97000	4161496.66000	0.00000	20.17	20.17
0.00	ANNUAL ALL 00000005			
586416.97000	4161496.66000	0.00000	20.40	20.40
0.00	ANNUAL ALL 00000005			
586436.97000	4161496.66000	0.00000	20.52	20.52
0.00	ANNUAL ALL 00000005			
586456.97000	4161496.66000	0.00000	20.64	20.64
0.00	ANNUAL ALL 00000005			
586476.97000	4161496.66000	0.00000	20.79	20.79
0.00	ANNUAL ALL 00000005			
586496.97000	4161496.66000	0.00000	20.64	20.64
0.00	ANNUAL ALL 00000005			
586516.97000	4161496.66000	0.00000	20.94	20.94
0.00	ANNUAL ALL 00000005			

586536.97000	4161496.66000	0.00000	20.98	20.98
0.00	ANNUAL ALL 00000005			
586556.97000	4161496.66000	0.00000	20.62	20.62
0.00	ANNUAL ALL 00000005			
586576.97000	4161496.66000	0.00000	21.02	21.02
0.00	ANNUAL ALL 00000005			
586376.97000	4161516.66000	0.00000	20.47	20.47
0.00	ANNUAL ALL 00000005			
586396.97000	4161516.66000	0.00000	20.71	20.71
0.00	ANNUAL ALL 00000005			
586416.97000	4161516.66000	0.00000	20.47	20.47
0.00	ANNUAL ALL 00000005			
586436.97000	4161516.66000	0.00000	20.68	20.68
0.00	ANNUAL ALL 00000005			
586456.97000	4161516.66000	0.00000	20.71	20.71
0.00	ANNUAL ALL 00000005			
586476.97000	4161516.66000	0.00000	20.74	20.74
0.00	ANNUAL ALL 00000005			
586496.97000	4161516.66000	0.00000	21.01	21.01
0.00	ANNUAL ALL 00000005			
586516.97000	4161516.66000	0.00000	21.03	21.03
0.00	ANNUAL ALL 00000005			
586536.97000	4161516.66000	0.00000	20.85	20.85
0.00	ANNUAL ALL 00000005			
586556.97000	4161516.66000	0.00000	20.94	20.94
0.00	ANNUAL ALL 00000005			
586576.97000	4161516.66000	0.00000	21.07	21.07
0.00	ANNUAL ALL 00000005			
586376.97000	4161536.66000	0.00000	20.81	20.81
0.00	ANNUAL ALL 00000005			
586396.97000	4161536.66000	0.00000	20.76	20.76
0.00	ANNUAL ALL 00000005			
586416.97000	4161536.66000	0.00000	20.77	20.77
0.00	ANNUAL ALL 00000005			
586436.97000	4161536.66000	0.00000	20.75	20.75
0.00	ANNUAL ALL 00000005			
586456.97000	4161536.66000	0.00000	20.74	20.74
0.00	ANNUAL ALL 00000005			
586476.97000	4161536.66000	0.00000	20.97	20.97
0.00	ANNUAL ALL 00000005			
586496.97000	4161536.66000	0.00000	21.11	21.11
0.00	ANNUAL ALL 00000005			
586516.97000	4161536.66000	0.00000	20.88	20.88
0.00	ANNUAL ALL 00000005			
586536.97000	4161536.66000	0.00000	21.34	21.34
0.00	ANNUAL ALL 00000005			
586556.97000	4161536.66000	0.00000	21.59	21.59
0.00	ANNUAL ALL 00000005			
586576.97000	4161536.66000	0.00000	21.22	21.22
0.00	ANNUAL ALL 00000005			
586376.97000	4161556.66000	0.00000	20.86	20.86
0.00	ANNUAL ALL 00000005			

586396.97000	4161556.66000	0.00000	20.83	20.83
0.00	ANNUAL ALL 00000005			
586416.97000	4161556.66000	0.00000	20.82	20.82
0.00	ANNUAL ALL 00000005			
586436.97000	4161556.66000	0.00000	20.76	20.76
0.00	ANNUAL ALL 00000005			
586456.97000	4161556.66000	0.00000	21.16	21.16
0.00	ANNUAL ALL 00000005			
586476.97000	4161556.66000	0.00000	21.24	21.24
0.00	ANNUAL ALL 00000005			
586496.97000	4161556.66000	0.00000	20.98	20.98
0.00	ANNUAL ALL 00000005			
586516.97000	4161556.66000	0.00000	21.11	21.11
0.00	ANNUAL ALL 00000005			
586536.97000	4161556.66000	0.00000	21.52	21.52
0.00	ANNUAL ALL 00000005			
586556.97000	4161556.66000	0.00000	21.77	21.77
0.00	ANNUAL ALL 00000005			
586576.97000	4161556.66000	0.00000	21.56	21.56
0.00	ANNUAL ALL 00000005			
586376.97000	4161576.66000	0.00000	20.83	20.83
0.00	ANNUAL ALL 00000005			
586396.97000	4161576.66000	0.00000	20.88	20.88
0.00	ANNUAL ALL 00000005			
586416.97000	4161576.66000	0.00000	20.87	20.87
0.00	ANNUAL ALL 00000005			
586436.97000	4161576.66000	0.00000	21.24	21.24
0.00	ANNUAL ALL 00000005			
586456.97000	4161576.66000	0.00000	21.29	21.29
0.00	ANNUAL ALL 00000005			
586476.97000	4161576.66000	0.00000	21.09	21.09
0.00	ANNUAL ALL 00000005			
586496.97000	4161576.66000	0.00000	21.33	21.33
0.00	ANNUAL ALL 00000005			
586516.97000	4161576.66000	0.00000	21.48	21.48
0.00	ANNUAL ALL 00000005			
586536.97000	4161576.66000	0.00000	21.58	21.58
0.00	ANNUAL ALL 00000005			
586556.97000	4161576.66000	0.00000	21.63	21.63
0.00	ANNUAL ALL 00000005			
586576.97000	4161576.66000	0.00000	21.69	21.69
0.00	ANNUAL ALL 00000005			
586376.97000	4161596.66000	0.00000	20.84	20.84
0.00	ANNUAL ALL 00000005			
586396.97000	4161596.66000	0.00000	21.28	21.28
0.00	ANNUAL ALL 00000005			
586416.97000	4161596.66000	0.00000	21.31	21.31
0.00	ANNUAL ALL 00000005			
586436.97000	4161596.66000	0.00000	21.39	21.39
0.00	ANNUAL ALL 00000005			
586456.97000	4161596.66000	0.00000	21.26	21.26
0.00	ANNUAL ALL 00000005			

586476.97000	4161596.66000	0.00000	21.50	21.50
0.00	ANNUAL ALL 00000005			
586496.97000	4161596.66000	0.00000	21.71	21.71
0.00	ANNUAL ALL 00000005			
586516.97000	4161596.66000	0.00000	21.67	21.67
0.00	ANNUAL ALL 00000005			
586536.97000	4161596.66000	0.00000	21.81	21.81
0.00	ANNUAL ALL 00000005			
586556.97000	4161596.66000	0.00000	21.82	21.82
0.00	ANNUAL ALL 00000005			
586576.97000	4161596.66000	0.00000	21.86	181.17
0.00	ANNUAL ALL 00000005			
586376.97000	4161616.66000	0.00000	21.38	21.38
0.00	ANNUAL ALL 00000005			
586396.97000	4161616.66000	0.00000	21.54	21.54
0.00	ANNUAL ALL 00000005			
586416.97000	4161616.66000	0.00000	21.49	21.49
0.00	ANNUAL ALL 00000005			
586436.97000	4161616.66000	0.00000	21.36	21.36
0.00	ANNUAL ALL 00000005			
586456.97000	4161616.66000	0.00000	21.53	21.53
0.00	ANNUAL ALL 00000005			
586476.97000	4161616.66000	0.00000	21.80	21.80
0.00	ANNUAL ALL 00000005			
586496.97000	4161616.66000	0.00000	21.85	21.85
0.00	ANNUAL ALL 00000005			
586516.97000	4161616.66000	0.00000	21.92	21.92
0.00	ANNUAL ALL 00000005			
586536.97000	4161616.66000	0.00000	21.96	21.96
0.00	ANNUAL ALL 00000005			
586556.97000	4161616.66000	0.00000	21.92	21.92
0.00	ANNUAL ALL 00000005			
586576.97000	4161616.66000	0.00000	21.97	181.37
0.00	ANNUAL ALL 00000005			
586376.97000	4161636.66000	0.00000	21.36	21.36
0.00	ANNUAL ALL 00000005			
586396.97000	4161636.66000	0.00000	21.60	21.60
0.00	ANNUAL ALL 00000005			
586416.97000	4161636.66000	0.00000	21.61	21.61
0.00	ANNUAL ALL 00000005			
586436.97000	4161636.66000	0.00000	21.58	21.58
0.00	ANNUAL ALL 00000005			
586456.97000	4161636.66000	0.00000	21.73	21.73
0.00	ANNUAL ALL 00000005			
586476.97000	4161636.66000	0.00000	21.98	21.98
0.00	ANNUAL ALL 00000005			
586496.97000	4161636.66000	0.00000	22.00	22.00
0.00	ANNUAL ALL 00000005			
586516.97000	4161636.66000	0.00000	22.10	22.10
0.00	ANNUAL ALL 00000005			
586536.97000	4161636.66000	0.00000	22.15	22.15
0.00	ANNUAL ALL 00000005			

586556.97000	4161636.66000	0.00000	22.11	181.17
0.00	ANNUAL ALL 00000005			
586576.97000	4161636.66000	0.00000	22.41	181.37
0.00	ANNUAL ALL 00000005			
586376.97000	4161656.66000	0.00000	21.62	21.62
0.00	ANNUAL ALL 00000005			
586396.97000	4161656.66000	0.00000	22.12	22.12
0.00	ANNUAL ALL 00000005			
586416.97000	4161656.66000	0.00000	22.24	22.24
0.00	ANNUAL ALL 00000005			
586436.97000	4161656.66000	0.00000	22.18	22.18
0.00	ANNUAL ALL 00000005			
586456.97000	4161656.66000	0.00000	21.93	21.93
0.00	ANNUAL ALL 00000005			
586476.97000	4161656.66000	0.00000	22.01	22.01
0.00	ANNUAL ALL 00000005			
586496.97000	4161656.66000	0.00000	22.23	22.23
0.00	ANNUAL ALL 00000005			
586516.97000	4161656.66000	0.00000	22.31	22.31
0.00	ANNUAL ALL 00000005			
586536.97000	4161656.66000	0.00000	22.30	22.30
0.00	ANNUAL ALL 00000005			
586556.97000	4161656.66000	0.00000	22.48	181.37
0.00	ANNUAL ALL 00000005			
586576.97000	4161656.66000	0.00001	22.53	181.37
0.00	ANNUAL ALL 00000005			
586376.97000	4161676.66000	0.00000	21.89	21.89
0.00	ANNUAL ALL 00000005			
586396.97000	4161676.66000	0.00000	22.34	22.34
0.00	ANNUAL ALL 00000005			
586416.97000	4161676.66000	0.00000	22.86	22.86
0.00	ANNUAL ALL 00000005			
586436.97000	4161676.66000	0.00000	22.84	22.84
0.00	ANNUAL ALL 00000005			
586456.97000	4161676.66000	0.00000	22.35	22.35
0.00	ANNUAL ALL 00000005			
586476.97000	4161676.66000	0.00000	22.38	22.38
0.00	ANNUAL ALL 00000005			
586496.97000	4161676.66000	0.00000	22.47	22.47
0.00	ANNUAL ALL 00000005			
586516.97000	4161676.66000	0.00000	22.40	22.40
0.00	ANNUAL ALL 00000005			
586536.97000	4161676.66000	0.00000	22.65	22.65
0.00	ANNUAL ALL 00000005			
586556.97000	4161676.66000	0.00000	22.64	181.37
0.00	ANNUAL ALL 00000005			
586576.97000	4161676.66000	0.00001	22.60	181.37
0.00	ANNUAL ALL 00000005			
586596.97000	4161676.66000	0.00001	22.67	181.37
0.00	ANNUAL ALL 00000005			
586616.97000	4161676.66000	0.00001	22.81	181.37
0.00	ANNUAL ALL 00000005			

586636.97000	4161676.66000	0.00001	22.88	181.37
0.00 ANNUAL ALL	00000005			
586656.97000	4161676.66000	0.00001	23.09	181.37
0.00 ANNUAL ALL	00000005			
586676.97000	4161676.66000	0.00001	22.86	192.17
0.00 ANNUAL ALL	00000005			
586376.97000	4161696.66000	0.00000	22.27	22.27
0.00 ANNUAL ALL	00000005			
586396.97000	4161696.66000	0.00000	22.81	22.81
0.00 ANNUAL ALL	00000005			
586416.97000	4161696.66000	0.00000	22.94	22.94
0.00 ANNUAL ALL	00000005			
586436.97000	4161696.66000	0.00000	22.43	22.43
0.00 ANNUAL ALL	00000005			
586456.97000	4161696.66000	0.00000	22.42	22.42
0.00 ANNUAL ALL	00000005			
586476.97000	4161696.66000	0.00000	22.57	22.57
0.00 ANNUAL ALL	00000005			
586496.97000	4161696.66000	0.00000	22.72	22.72
0.00 ANNUAL ALL	00000005			
586516.97000	4161696.66000	0.00000	22.75	22.75
0.00 ANNUAL ALL	00000005			
586536.97000	4161696.66000	0.00000	22.87	181.17
0.00 ANNUAL ALL	00000005			
586556.97000	4161696.66000	0.00000	22.82	181.37
0.00 ANNUAL ALL	00000005			
586576.97000	4161696.66000	0.00001	22.76	181.37
0.00 ANNUAL ALL	00000005			
586596.97000	4161696.66000	0.00001	23.00	181.37
0.00 ANNUAL ALL	00000005			
586616.97000	4161696.66000	0.00001	23.07	181.37
0.00 ANNUAL ALL	00000005			
586636.97000	4161696.66000	0.00001	23.41	181.37
0.00 ANNUAL ALL	00000005			
586656.97000	4161696.66000	0.00001	23.14	181.37
0.00 ANNUAL ALL	00000005			
586676.97000	4161696.66000	0.00001	23.07	192.17
0.00 ANNUAL ALL	00000005			
586376.97000	4161716.66000	0.00000	22.56	22.56
0.00 ANNUAL ALL	00000005			
586396.97000	4161716.66000	0.00000	22.83	22.83
0.00 ANNUAL ALL	00000005			
586416.97000	4161716.66000	0.00000	22.53	22.53
0.00 ANNUAL ALL	00000005			
586436.97000	4161716.66000	0.00000	22.40	22.40
0.00 ANNUAL ALL	00000005			
586456.97000	4161716.66000	0.00000	22.62	22.62
0.00 ANNUAL ALL	00000005			
586476.97000	4161716.66000	0.00000	22.81	22.81
0.00 ANNUAL ALL	00000005			
586496.97000	4161716.66000	0.00000	23.07	23.07
0.00 ANNUAL ALL	00000005			

586516.97000	4161716.66000	0.00000	23.03	23.03
0.00	ANNUAL ALL 00000005			
586536.97000	4161716.66000	0.00000	22.98	181.37
0.00	ANNUAL ALL 00000005			
586556.97000	4161716.66000	0.00001	22.95	181.37
0.00	ANNUAL ALL 00000005			
586576.97000	4161716.66000	0.00001	22.93	181.37
0.00	ANNUAL ALL 00000005			
586596.97000	4161716.66000	0.00001	23.16	181.37
0.00	ANNUAL ALL 00000005			
586616.97000	4161716.66000	0.00001	23.37	181.37
0.00	ANNUAL ALL 00000005			
586636.97000	4161716.66000	0.00001	23.36	181.37
0.00	ANNUAL ALL 00000005			
586656.97000	4161716.66000	0.00001	23.37	191.71
0.00	ANNUAL ALL 00000005			
586676.97000	4161716.66000	0.00001	23.37	192.17
0.00	ANNUAL ALL 00000005			
586696.97000	4161716.66000	0.00001	23.06	192.17
0.00	ANNUAL ALL 00000005			
586376.97000	4161736.66000	0.00000	22.43	22.43
0.00	ANNUAL ALL 00000005			
586396.97000	4161736.66000	0.00000	22.48	22.48
0.00	ANNUAL ALL 00000005			
586416.97000	4161736.66000	0.00000	22.27	22.27
0.00	ANNUAL ALL 00000005			
586436.97000	4161736.66000	0.00000	22.43	22.43
0.00	ANNUAL ALL 00000005			
586456.97000	4161736.66000	0.00000	22.76	22.76
0.00	ANNUAL ALL 00000005			
586476.97000	4161736.66000	0.00000	23.19	23.19
0.00	ANNUAL ALL 00000005			
586496.97000	4161736.66000	0.00000	23.32	23.32
0.00	ANNUAL ALL 00000005			
586516.97000	4161736.66000	0.00000	23.20	23.20
0.00	ANNUAL ALL 00000005			
586536.97000	4161736.66000	0.00000	23.26	181.37
0.00	ANNUAL ALL 00000005			
586556.97000	4161736.66000	0.00001	23.17	181.37
0.00	ANNUAL ALL 00000005			
586576.97000	4161736.66000	0.00001	23.21	181.37
0.00	ANNUAL ALL 00000005			
586596.97000	4161736.66000	0.00001	23.60	181.37
0.00	ANNUAL ALL 00000005			
586616.97000	4161736.66000	0.00001	23.57	181.37
0.00	ANNUAL ALL 00000005			
586636.97000	4161736.66000	0.00001	23.58	181.37
0.00	ANNUAL ALL 00000005			
586656.97000	4161736.66000	0.00001	23.56	192.17
0.00	ANNUAL ALL 00000005			
586676.97000	4161736.66000	0.00001	23.42	192.17
0.00	ANNUAL ALL 00000005			

586696.97000	4161736.66000	0.00001	23.04	192.17
0.00 ANNUAL ALL	00000005			
586376.97000	4161756.66000	0.00000	22.23	22.23
0.00 ANNUAL ALL	00000005			
586396.97000	4161756.66000	0.00000	22.17	22.17
0.00 ANNUAL ALL	00000005			
586416.97000	4161756.66000	0.00000	22.50	22.50
0.00 ANNUAL ALL	00000005			
586436.97000	4161756.66000	0.00000	22.65	22.65
0.00 ANNUAL ALL	00000005			
586456.97000	4161756.66000	0.00000	22.99	22.99
0.00 ANNUAL ALL	00000005			
586476.97000	4161756.66000	0.00000	23.28	23.28
0.00 ANNUAL ALL	00000005			
586496.97000	4161756.66000	0.00000	23.41	23.41
0.00 ANNUAL ALL	00000005			
586516.97000	4161756.66000	0.00000	23.29	181.17
0.00 ANNUAL ALL	00000005			
586536.97000	4161756.66000	0.00000	23.31	181.37
0.00 ANNUAL ALL	00000005			
586556.97000	4161756.66000	0.00001	23.49	181.37
0.00 ANNUAL ALL	00000005			
586576.97000	4161756.66000	0.00001	23.67	181.37
0.00 ANNUAL ALL	00000005			
586596.97000	4161756.66000	0.00001	23.73	181.37
0.00 ANNUAL ALL	00000005			
586616.97000	4161756.66000	0.00001	23.66	181.37
0.00 ANNUAL ALL	00000005			
586636.97000	4161756.66000	0.00001	23.74	181.37
0.00 ANNUAL ALL	00000005			
586656.97000	4161756.66000	0.00001	23.60	192.17
0.00 ANNUAL ALL	00000005			
586676.97000	4161756.66000	0.00001	23.34	192.17
0.00 ANNUAL ALL	00000005			
586696.97000	4161756.66000	0.00001	22.99	192.17
0.00 ANNUAL ALL	00000005			
586716.97000	4161756.66000	0.00001	22.93	192.17
0.00 ANNUAL ALL	00000005			
586376.97000	4161776.66000	0.00000	22.19	22.19
0.00 ANNUAL ALL	00000005			
586396.97000	4161776.66000	0.00000	22.28	22.28
0.00 ANNUAL ALL	00000005			
586416.97000	4161776.66000	0.00000	22.57	22.57
0.00 ANNUAL ALL	00000005			
586436.97000	4161776.66000	0.00000	22.97	22.97
0.00 ANNUAL ALL	00000005			
586456.97000	4161776.66000	0.00000	23.21	23.21
0.00 ANNUAL ALL	00000005			
586476.97000	4161776.66000	0.00000	23.40	23.40
0.00 ANNUAL ALL	00000005			
586496.97000	4161776.66000	0.00000	23.45	23.45
0.00 ANNUAL ALL	00000005			



586516.97000	4161776.66000	0.00000	23.64	181.17
0.00 ANNUAL ALL	00000005			
586536.97000	4161776.66000	0.00000	23.69	181.37
0.00 ANNUAL ALL	00000005			
586556.97000	4161776.66000	0.00001	23.68	181.37
0.00 ANNUAL ALL	00000005			
586576.97000	4161776.66000	0.00001	23.76	181.37
0.00 ANNUAL ALL	00000005			
586596.97000	4161776.66000	0.00001	23.78	181.37
0.00 ANNUAL ALL	00000005			
586616.97000	4161776.66000	0.00001	23.86	181.37
0.00 ANNUAL ALL	00000005			
586636.97000	4161776.66000	0.00001	23.89	192.17
0.00 ANNUAL ALL	00000005			
586656.97000	4161776.66000	0.00001	23.61	192.17
0.00 ANNUAL ALL	00000005			
586676.97000	4161776.66000	0.00001	23.35	192.17
0.00 ANNUAL ALL	00000005			
586696.97000	4161776.66000	0.00001	23.01	192.17
0.00 ANNUAL ALL	00000005			
586716.97000	4161776.66000	0.00001	22.83	192.17
0.00 ANNUAL ALL	00000005			
586396.97000	4161796.66000	0.00000	22.52	22.52
0.00 ANNUAL ALL	00000005			
586416.97000	4161796.66000	0.00000	22.84	22.84
0.00 ANNUAL ALL	00000005			
586436.97000	4161796.66000	0.00000	23.38	23.38
0.00 ANNUAL ALL	00000005			
586456.97000	4161796.66000	0.00000	23.34	23.34
0.00 ANNUAL ALL	00000005			
586476.97000	4161796.66000	0.00000	23.51	23.51
0.00 ANNUAL ALL	00000005			
586496.97000	4161796.66000	0.00000	23.82	23.82
0.00 ANNUAL ALL	00000005			
586516.97000	4161796.66000	0.00000	23.69	181.37
0.00 ANNUAL ALL	00000005			
586536.97000	4161796.66000	0.00000	23.78	181.37
0.00 ANNUAL ALL	00000005			
586556.97000	4161796.66000	0.00001	23.93	181.37
0.00 ANNUAL ALL	00000005			
586576.97000	4161796.66000	0.00001	23.91	181.37
0.00 ANNUAL ALL	00000005			
586596.97000	4161796.66000	0.00001	23.88	181.37
0.00 ANNUAL ALL	00000005			
586616.97000	4161796.66000	0.00001	24.15	181.37
0.00 ANNUAL ALL	00000005			
586636.97000	4161796.66000	0.00001	23.93	192.17
0.00 ANNUAL ALL	00000005			
586656.97000	4161796.66000	0.00001	23.74	192.17
0.00 ANNUAL ALL	00000005			
586676.97000	4161796.66000	0.00001	23.36	192.17
0.00 ANNUAL ALL	00000005			

586696.97000	4161796.66000	0.00001	23.08	192.17
0.00 ANNUAL ALL	00000005			
586716.97000	4161796.66000	0.00001	22.81	192.17
0.00 ANNUAL ALL	00000005			
587016.80000	4161615.88000	0.00004	19.71	192.17
0.00 ANNUAL ALL	00000005			
587036.80000	4161615.88000	0.00004	19.63	192.17
0.00 ANNUAL ALL	00000005			
587056.80000	4161615.88000	0.00004	19.93	192.17
0.00 ANNUAL ALL	00000005			
587076.80000	4161615.88000	0.00003	19.58	192.17
0.00 ANNUAL ALL	00000005			
587096.80000	4161615.88000	0.00003	19.56	192.17
0.00 ANNUAL ALL	00000005			
587116.80000	4161615.88000	0.00003	19.74	192.17
0.00 ANNUAL ALL	00000005			
587136.80000	4161615.88000	0.00003	19.63	192.17
0.00 ANNUAL ALL	00000005			
587156.80000	4161615.88000	0.00003	19.92	192.17
0.00 ANNUAL ALL	00000005			
587176.80000	4161615.88000	0.00002	19.45	192.17
0.00 ANNUAL ALL	00000005			
587016.80000	4161635.88000	0.00003	19.85	192.17
0.00 ANNUAL ALL	00000005			
587036.80000	4161635.88000	0.00003	20.07	192.17
0.00 ANNUAL ALL	00000005			
587056.80000	4161635.88000	0.00003	20.21	192.17
0.00 ANNUAL ALL	00000005			
587076.80000	4161635.88000	0.00003	20.19	192.17
0.00 ANNUAL ALL	00000005			
587096.80000	4161635.88000	0.00003	19.58	192.17
0.00 ANNUAL ALL	00000005			
587116.80000	4161635.88000	0.00003	19.49	192.17
0.00 ANNUAL ALL	00000005			
587136.80000	4161635.88000	0.00002	19.94	192.17
0.00 ANNUAL ALL	00000005			
587156.80000	4161635.88000	0.00002	19.76	192.17
0.00 ANNUAL ALL	00000005			
587176.80000	4161635.88000	0.00002	19.20	192.17
0.00 ANNUAL ALL	00000005			
587016.80000	4161655.88000	0.00003	20.30	192.17
0.00 ANNUAL ALL	00000005			
587036.80000	4161655.88000	0.00003	20.34	192.17
0.00 ANNUAL ALL	00000005			
587056.80000	4161655.88000	0.00003	20.25	192.17
0.00 ANNUAL ALL	00000005			
587076.80000	4161655.88000	0.00003	19.90	192.17
0.00 ANNUAL ALL	00000005			
587096.80000	4161655.88000	0.00002	19.67	192.17
0.00 ANNUAL ALL	00000005			
587116.80000	4161655.88000	0.00002	19.64	192.17
0.00 ANNUAL ALL	00000005			

587136.80000	4161655.88000	0.00002	19.38	192.17
0.00	ANNUAL ALL 00000005			
587156.80000	4161655.88000	0.00002	19.39	192.17
0.00	ANNUAL ALL 00000005			
587176.80000	4161655.88000	0.00002	19.92	192.17
0.00	ANNUAL ALL 00000005			
586876.80000	4161675.88000	0.00002	21.34	192.17
0.00	ANNUAL ALL 00000005			
586896.80000	4161675.88000	0.00002	20.88	192.17
0.00	ANNUAL ALL 00000005			
586916.80000	4161675.88000	0.00002	20.83	192.17
0.00	ANNUAL ALL 00000005			
586936.80000	4161675.88000	0.00002	20.91	192.17
0.00	ANNUAL ALL 00000005			
586956.80000	4161675.88000	0.00002	21.01	192.17
0.00	ANNUAL ALL 00000005			
586976.80000	4161675.88000	0.00002	20.59	192.17
0.00	ANNUAL ALL 00000005			
586996.80000	4161675.88000	0.00002	20.91	192.17
0.00	ANNUAL ALL 00000005			
587016.80000	4161675.88000	0.00002	20.74	192.17
0.00	ANNUAL ALL 00000005			
587036.80000	4161675.88000	0.00002	20.47	192.17
0.00	ANNUAL ALL 00000005			
587056.80000	4161675.88000	0.00002	20.16	192.17
0.00	ANNUAL ALL 00000005			
587076.80000	4161675.88000	0.00002	19.80	192.17
0.00	ANNUAL ALL 00000005			
587096.80000	4161675.88000	0.00002	20.07	192.17
0.00	ANNUAL ALL 00000005			
587116.80000	4161675.88000	0.00002	19.95	192.17
0.00	ANNUAL ALL 00000005			
587136.80000	4161675.88000	0.00002	19.48	192.17
0.00	ANNUAL ALL 00000005			
587156.80000	4161675.88000	0.00002	19.61	192.17
0.00	ANNUAL ALL 00000005			
587176.80000	4161675.88000	0.00002	19.84	192.17
0.00	ANNUAL ALL 00000005			
586876.80000	4161695.88000	0.00002	21.07	192.17
0.00	ANNUAL ALL 00000005			
586896.80000	4161695.88000	0.00002	20.71	192.17
0.00	ANNUAL ALL 00000005			
586916.80000	4161695.88000	0.00002	20.86	192.17
0.00	ANNUAL ALL 00000005			
586936.80000	4161695.88000	0.00002	21.18	192.17
0.00	ANNUAL ALL 00000005			
586956.80000	4161695.88000	0.00002	21.05	192.17
0.00	ANNUAL ALL 00000005			
586976.80000	4161695.88000	0.00002	20.65	192.17
0.00	ANNUAL ALL 00000005			
586996.80000	4161695.88000	0.00002	20.50	192.17
0.00	ANNUAL ALL 00000005			

587016.80000	4161695.88000	0.00002	20.81	192.17
0.00	ANNUAL ALL 00000005			
587036.80000	4161695.88000	0.00002	20.89	192.17
0.00	ANNUAL ALL 00000005			
587056.80000	4161695.88000	0.00002	20.38	192.17
0.00	ANNUAL ALL 00000005			
587076.80000	4161695.88000	0.00002	20.27	192.17
0.00	ANNUAL ALL 00000005			
587096.80000	4161695.88000	0.00002	20.23	192.17
0.00	ANNUAL ALL 00000005			
587116.80000	4161695.88000	0.00002	19.75	192.17
0.00	ANNUAL ALL 00000005			
587136.80000	4161695.88000	0.00002	20.22	192.17
0.00	ANNUAL ALL 00000005			
587156.80000	4161695.88000	0.00002	20.13	192.17
0.00	ANNUAL ALL 00000005			
587176.80000	4161695.88000	0.00002	19.75	192.17
0.00	ANNUAL ALL 00000005			
586876.80000	4161715.88000	0.00001	21.28	192.17
0.00	ANNUAL ALL 00000005			
586896.80000	4161715.88000	0.00002	20.87	192.17
0.00	ANNUAL ALL 00000005			
586916.80000	4161715.88000	0.00002	21.12	192.17
0.00	ANNUAL ALL 00000005			
586936.80000	4161715.88000	0.00002	21.22	192.17
0.00	ANNUAL ALL 00000005			
586956.80000	4161715.88000	0.00002	20.93	192.17
0.00	ANNUAL ALL 00000005			
586976.80000	4161715.88000	0.00002	20.61	192.17
0.00	ANNUAL ALL 00000005			
586996.80000	4161715.88000	0.00002	20.87	192.17
0.00	ANNUAL ALL 00000005			
587016.80000	4161715.88000	0.00002	20.59	192.17
0.00	ANNUAL ALL 00000005			
587036.80000	4161715.88000	0.00002	20.75	192.17
0.00	ANNUAL ALL 00000005			
587056.80000	4161715.88000	0.00002	20.81	192.17
0.00	ANNUAL ALL 00000005			
587076.80000	4161715.88000	0.00002	20.39	192.17
0.00	ANNUAL ALL 00000005			
587096.80000	4161715.88000	0.00002	20.16	192.17
0.00	ANNUAL ALL 00000005			
587116.80000	4161715.88000	0.00002	19.82	192.17
0.00	ANNUAL ALL 00000005			
587136.80000	4161715.88000	0.00002	19.89	192.17
0.00	ANNUAL ALL 00000005			
587156.80000	4161715.88000	0.00001	20.56	192.17
0.00	ANNUAL ALL 00000005			
587176.80000	4161715.88000	0.00001	20.40	192.17
0.00	ANNUAL ALL 00000005			
586876.80000	4161735.88000	0.00001	21.43	192.17
0.00	ANNUAL ALL 00000005			

586896.80000	4161735.88000	0.00001	21.06	192.17
0.00	ANNUAL ALL 00000005			
586916.80000	4161735.88000	0.00001	21.21	192.17
0.00	ANNUAL ALL 00000005			
586936.80000	4161735.88000	0.00001	21.11	192.17
0.00	ANNUAL ALL 00000005			
586956.80000	4161735.88000	0.00001	20.76	192.17
0.00	ANNUAL ALL 00000005			
586976.80000	4161735.88000	0.00001	20.96	192.17
0.00	ANNUAL ALL 00000005			
586996.80000	4161735.88000	0.00001	21.20	192.17
0.00	ANNUAL ALL 00000005			
587016.80000	4161735.88000	0.00001	20.92	192.17
0.00	ANNUAL ALL 00000005			
587036.80000	4161735.88000	0.00001	20.55	192.17
0.00	ANNUAL ALL 00000005			
587056.80000	4161735.88000	0.00001	20.52	192.17
0.00	ANNUAL ALL 00000005			
587076.80000	4161735.88000	0.00001	20.45	192.17
0.00	ANNUAL ALL 00000005			
587096.80000	4161735.88000	0.00001	20.39	192.17
0.00	ANNUAL ALL 00000005			
587116.80000	4161735.88000	0.00001	20.53	192.17
0.00	ANNUAL ALL 00000005			
587136.80000	4161735.88000	0.00001	20.22	192.17
0.00	ANNUAL ALL 00000005			
587156.80000	4161735.88000	0.00001	20.06	192.17
0.00	ANNUAL ALL 00000005			
587176.80000	4161735.88000	0.00001	20.69	192.17
0.00	ANNUAL ALL 00000005			
586876.80000	4161755.88000	0.00001	21.57	192.17
0.00	ANNUAL ALL 00000005			
586896.80000	4161755.88000	0.00001	21.47	192.17
0.00	ANNUAL ALL 00000005			
586916.80000	4161755.88000	0.00001	21.04	192.17
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586936.80000	4161755.88000	0.00001	21.26	192.17
0.00	ANNUAL ALL 00000005			
586956.80000	4161755.88000	0.00001	21.25	192.17
0.00	ANNUAL ALL 00000005			
586976.80000	4161755.88000	0.00001	21.41	192.17
0.00	ANNUAL ALL 00000005			
586996.80000	4161755.88000	0.00001	21.21	192.17
0.00	ANNUAL ALL 00000005			
587016.80000	4161755.88000	0.00001	20.84	192.17
0.00	ANNUAL ALL 00000005			
587036.80000	4161755.88000	0.00001	21.20	192.17
0.00	ANNUAL ALL 00000005			
587056.80000	4161755.88000	0.00001	20.68	192.17
0.00	ANNUAL ALL 00000005			
587076.80000	4161755.88000	0.00001	20.71	192.17
0.00	ANNUAL ALL 00000005			

587096.80000	4161755.88000	0.00001	21.01	192.17
0.00	ANNUAL ALL 00000005			
587116.80000	4161755.88000	0.00001	20.76	192.17
0.00	ANNUAL ALL 00000005			
587136.80000	4161755.88000	0.00001	20.44	192.17
0.00	ANNUAL ALL 00000005			
587156.80000	4161755.88000	0.00001	20.14	192.17
0.00	ANNUAL ALL 00000005			
587176.80000	4161755.88000	0.00001	20.51	192.17
0.00	ANNUAL ALL 00000005			
586876.80000	4161775.88000	0.00001	21.76	192.17
0.00	ANNUAL ALL 00000005			
586896.80000	4161775.88000	0.00001	21.74	192.17
0.00	ANNUAL ALL 00000005			
586916.80000	4161775.88000	0.00001	21.25	192.17
0.00	ANNUAL ALL 00000005			
586936.80000	4161775.88000	0.00001	21.85	192.17
0.00	ANNUAL ALL 00000005			
586956.80000	4161775.88000	0.00001	21.49	192.17
0.00	ANNUAL ALL 00000005			
586976.80000	4161775.88000	0.00001	21.40	192.17
0.00	ANNUAL ALL 00000005			
586996.80000	4161775.88000	0.00001	20.91	192.17
0.00	ANNUAL ALL 00000005			
587016.80000	4161775.88000	0.00001	21.37	192.17
0.00	ANNUAL ALL 00000005			
587036.80000	4161775.88000	0.00001	21.11	192.17
0.00	ANNUAL ALL 00000005			
587056.80000	4161775.88000	0.00001	21.05	192.17
0.00	ANNUAL ALL 00000005			
587076.80000	4161775.88000	0.00001	21.39	192.17
0.00	ANNUAL ALL 00000005			
587096.80000	4161775.88000	0.00001	21.07	192.17
0.00	ANNUAL ALL 00000005			
587116.80000	4161775.88000	0.00001	21.00	192.17
0.00	ANNUAL ALL 00000005			
587136.80000	4161775.88000	0.00001	20.36	192.17
0.00	ANNUAL ALL 00000005			
587156.80000	4161775.88000	0.00001	20.58	192.17
0.00	ANNUAL ALL 00000005			
587176.80000	4161775.88000	0.00001	20.78	192.17
0.00	ANNUAL ALL 00000005			
586876.80000	4161795.88000	0.00001	21.83	192.17
0.00	ANNUAL ALL 00000005			
586896.80000	4161795.88000	0.00001	21.79	192.17
0.00	ANNUAL ALL 00000005			
586916.80000	4161795.88000	0.00001	21.48	192.17
0.00	ANNUAL ALL 00000005			
586936.80000	4161795.88000	0.00001	21.85	192.17
0.00	ANNUAL ALL 00000005			
586956.80000	4161795.88000	0.00001	21.61	192.17
0.00	ANNUAL ALL 00000005			

586976.80000	4161795.88000	0.00001	21.07	192.17
0.00 ANNUAL ALL	00000005			
586996.80000	4161795.88000	0.00001	21.50	192.17
0.00 ANNUAL ALL	00000005			
587016.80000	4161795.88000	0.00001	21.34	192.17
0.00 ANNUAL ALL	00000005			
587036.80000	4161795.88000	0.00001	21.14	192.17
0.00 ANNUAL ALL	00000005			
587056.80000	4161795.88000	0.00001	21.64	192.17
0.00 ANNUAL ALL	00000005			
587076.80000	4161795.88000	0.00001	21.34	192.17
0.00 ANNUAL ALL	00000005			
587096.80000	4161795.88000	0.00001	20.89	192.17
0.00 ANNUAL ALL	00000005			
587116.80000	4161795.88000	0.00001	20.52	192.17
0.00 ANNUAL ALL	00000005			
587136.80000	4161795.88000	0.00001	20.59	192.17
0.00 ANNUAL ALL	00000005			
587156.80000	4161795.88000	0.00001	21.00	192.17
0.00 ANNUAL ALL	00000005			
587419.00000	4161414.19000	0.00001	20.20	192.17
0.00 ANNUAL ALL	00000005			
587439.00000	4161414.19000	0.00001	21.33	192.17
0.00 ANNUAL ALL	00000005			
587459.00000	4161414.19000	0.00001	21.01	192.17
0.00 ANNUAL ALL	00000005			
587479.00000	4161414.19000	0.00001	20.90	192.17
0.00 ANNUAL ALL	00000005			
587499.00000	4161414.19000	0.00001	21.47	192.17
0.00 ANNUAL ALL	00000005			
587519.00000	4161414.19000	0.00001	22.44	192.17
0.00 ANNUAL ALL	00000005			
587419.00000	4161434.19000	0.00001	20.40	192.17
0.00 ANNUAL ALL	00000005			
587439.00000	4161434.19000	0.00001	20.61	192.17
0.00 ANNUAL ALL	00000005			
587459.00000	4161434.19000	0.00001	20.78	192.17
0.00 ANNUAL ALL	00000005			
587479.00000	4161434.19000	0.00001	21.30	192.17
0.00 ANNUAL ALL	00000005			
587499.00000	4161434.19000	0.00001	22.12	192.17
0.00 ANNUAL ALL	00000005			
587419.00000	4161454.19000	0.00001	20.80	192.17
0.00 ANNUAL ALL	00000005			
587439.00000	4161454.19000	0.00001	20.51	192.17
0.00 ANNUAL ALL	00000005			
587459.00000	4161454.19000	0.00001	21.17	192.17
0.00 ANNUAL ALL	00000005			
587479.00000	4161454.19000	0.00001	21.70	192.17
0.00 ANNUAL ALL	00000005			
587419.00000	4161474.19000	0.00001	20.21	192.17
0.00 ANNUAL ALL	00000005			

587439.00000	4161474.19000	0.00001	20.97	192.17
0.00	ANNUAL ALL 00000005			
587459.00000	4161474.19000	0.00001	21.46	192.17
0.00	ANNUAL ALL 00000005			
587419.00000	4161494.19000	0.00001	20.52	192.17
0.00	ANNUAL ALL 00000005			
587439.00000	4161494.19000	0.00001	20.99	192.17
0.00	ANNUAL ALL 00000005			
587419.00000	4161514.19000	0.00001	20.73	192.17
0.00	ANNUAL ALL 00000005			
587199.00000	4161614.19000	0.00002	19.34	192.17
0.00	ANNUAL ALL 00000005			
587219.00000	4161614.19000	0.00002	19.87	192.17
0.00	ANNUAL ALL 00000005			
587239.00000	4161614.19000	0.00002	20.17	192.17
0.00	ANNUAL ALL 00000005			
587259.00000	4161614.19000	0.00002	20.38	192.17
0.00	ANNUAL ALL 00000005			
587279.00000	4161614.19000	0.00002	19.94	192.17
0.00	ANNUAL ALL 00000005			
587299.00000	4161614.19000	0.00002	19.93	192.17
0.00	ANNUAL ALL 00000005			
587319.00000	4161614.19000	0.00001	20.25	192.17
0.00	ANNUAL ALL 00000005			
587339.00000	4161614.19000	0.00001	21.13	192.17
0.00	ANNUAL ALL 00000005			
587199.00000	4161634.19000	0.00002	19.71	192.17
0.00	ANNUAL ALL 00000005			
587219.00000	4161634.19000	0.00002	20.00	192.17
0.00	ANNUAL ALL 00000005			
587239.00000	4161634.19000	0.00002	20.34	192.17
0.00	ANNUAL ALL 00000005			
587259.00000	4161634.19000	0.00002	20.09	192.17
0.00	ANNUAL ALL 00000005			
587279.00000	4161634.19000	0.00002	20.00	192.17
0.00	ANNUAL ALL 00000005			
587299.00000	4161634.19000	0.00001	20.33	192.17
0.00	ANNUAL ALL 00000005			
587319.00000	4161634.19000	0.00001	20.71	192.17
0.00	ANNUAL ALL 00000005			
587199.00000	4161654.19000	0.00002	19.35	192.17
0.00	ANNUAL ALL 00000005			
587219.00000	4161654.19000	0.00002	20.13	192.17
0.00	ANNUAL ALL 00000005			
587239.00000	4161654.19000	0.00002	20.04	192.17
0.00	ANNUAL ALL 00000005			
587259.00000	4161654.19000	0.00002	19.82	192.17
0.00	ANNUAL ALL 00000005			
587279.00000	4161654.19000	0.00001	20.42	192.17
0.00	ANNUAL ALL 00000005			
587299.00000	4161654.19000	0.00001	20.76	192.17
0.00	ANNUAL ALL 00000005			



587199.00000	4161674.19000	0.00002	20.01	192.17
0.00 ANNUAL ALL	00000005			
587219.00000	4161674.19000	0.00002	19.51	192.17
0.00 ANNUAL ALL	00000005			
587239.00000	4161674.19000	0.00002	19.70	192.17
0.00 ANNUAL ALL	00000005			
587259.00000	4161674.19000	0.00001	20.35	192.17
0.00 ANNUAL ALL	00000005			
587279.00000	4161674.19000	0.00001	20.75	192.17
0.00 ANNUAL ALL	00000005			
587199.00000	4161694.19000	0.00002	20.08	192.17
0.00 ANNUAL ALL	00000005			
587219.00000	4161694.19000	0.00001	20.13	192.17
0.00 ANNUAL ALL	00000005			
587239.00000	4161694.19000	0.00001	20.35	192.17
0.00 ANNUAL ALL	00000005			
587259.00000	4161694.19000	0.00001	20.44	192.17
0.00 ANNUAL ALL	00000005			
587199.00000	4161714.19000	0.00001	20.03	192.17
0.00 ANNUAL ALL	00000005			
587219.00000	4161714.19000	0.00001	20.35	192.17
0.00 ANNUAL ALL	00000005			
587239.00000	4161714.19000	0.00001	21.12	192.17
0.00 ANNUAL ALL	00000005			
587199.00000	4161734.19000	0.00001	20.42	192.17
0.00 ANNUAL ALL	00000005			
587219.00000	4161734.19000	0.00001	20.43	192.17
0.00 ANNUAL ALL	00000005			
587199.00000	4161754.19000	0.00001	20.88	192.17
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586920.17000	4160794.91000	0.00000	15.68	15.68
0.00 ANNUAL ALL	00000005			
586940.17000	4160794.91000	0.00000	15.54	15.54
0.00 ANNUAL ALL	00000005			
586960.17000	4160794.91000	0.00000	14.54	15.41
0.00 ANNUAL ALL	00000005			
586980.17000	4160794.91000	0.00000	15.08	15.08
0.00 ANNUAL ALL	00000005			
587000.17000	4160794.91000	0.00000	16.00	16.00
0.00 ANNUAL ALL	00000005			
587020.17000	4160794.91000	0.00000	16.08	16.08
0.00 ANNUAL ALL	00000005			
587040.17000	4160794.91000	0.00000	15.90	15.90
0.00 ANNUAL ALL	00000005			
587060.17000	4160794.91000	0.00000	15.99	15.99
0.00 ANNUAL ALL	00000005			
587080.17000	4160794.91000	0.00000	15.58	15.58
0.00 ANNUAL ALL	00000005			
587100.17000	4160794.91000	0.00000	14.94	14.94
0.00 ANNUAL ALL	00000005			
587120.17000	4160794.91000	0.00000	14.81	14.81
0.00 ANNUAL ALL	00000005			

587140.17000	4160794.91000	0.00000	14.82	14.82
0.00	ANNUAL ALL 00000005			
587160.17000	4160794.91000	0.00000	14.76	14.76
0.00	ANNUAL ALL 00000005			
587180.17000	4160794.91000	0.00000	14.97	14.97
0.00	ANNUAL ALL 00000005			
586900.17000	4160814.91000	0.00000	15.73	15.73
0.00	ANNUAL ALL 00000005			
586920.17000	4160814.91000	0.00000	15.76	15.76
0.00	ANNUAL ALL 00000005			
586940.17000	4160814.91000	0.00000	15.76	15.76
0.00	ANNUAL ALL 00000005			
586960.17000	4160814.91000	0.00000	15.69	15.69
0.00	ANNUAL ALL 00000005			
586980.17000	4160814.91000	0.00000	16.00	16.00
0.00	ANNUAL ALL 00000005			
587000.17000	4160814.91000	0.00000	16.14	16.14
0.00	ANNUAL ALL 00000005			
587020.17000	4160814.91000	0.00000	15.91	15.91
0.00	ANNUAL ALL 00000005			
587040.17000	4160814.91000	0.00000	15.69	15.69
0.00	ANNUAL ALL 00000005			
587060.17000	4160814.91000	0.00000	15.30	15.30
0.00	ANNUAL ALL 00000005			
587080.17000	4160814.91000	0.00000	15.13	15.13
0.00	ANNUAL ALL 00000005			
587100.17000	4160814.91000	0.00000	15.08	15.08
0.00	ANNUAL ALL 00000005			
587120.17000	4160814.91000	0.00000	14.86	14.86
0.00	ANNUAL ALL 00000005			
587140.17000	4160814.91000	0.00000	14.91	14.91
0.00	ANNUAL ALL 00000005			
587160.17000	4160814.91000	0.00000	14.89	14.89
0.00	ANNUAL ALL 00000005			
587180.17000	4160814.91000	0.00000	14.77	14.77
0.00	ANNUAL ALL 00000005			
586880.17000	4160834.91000	0.00000	15.59	15.59
0.00	ANNUAL ALL 00000005			
586900.17000	4160834.91000	0.00000	15.72	15.72
0.00	ANNUAL ALL 00000005			
586920.17000	4160834.91000	0.00000	15.80	15.80
0.00	ANNUAL ALL 00000005			
586940.17000	4160834.91000	0.00000	15.84	15.84
0.00	ANNUAL ALL 00000005			
586960.17000	4160834.91000	0.00000	15.97	15.97
0.00	ANNUAL ALL 00000005			
587000.17000	4160834.91000	0.00000	15.73	15.73
0.00	ANNUAL ALL 00000005			
587020.17000	4160834.91000	0.00000	15.71	15.71
0.00	ANNUAL ALL 00000005			
587040.17000	4160834.91000	0.00000	15.52	15.52
0.00	ANNUAL ALL 00000005			

587060.17000	4160834.91000	0.00000	15.38	15.38
0.00	ANNUAL ALL 00000005			
587080.17000	4160834.91000	0.00000	15.21	15.21
0.00	ANNUAL ALL 00000005			
587100.17000	4160834.91000	0.00000	15.22	15.22
0.00	ANNUAL ALL 00000005			
587120.17000	4160834.91000	0.00000	15.02	15.02
0.00	ANNUAL ALL 00000005			
587140.17000	4160834.91000	0.00000	14.94	14.94
0.00	ANNUAL ALL 00000005			
587160.17000	4160834.91000	0.00000	14.90	14.90
0.00	ANNUAL ALL 00000005			
587180.17000	4160834.91000	0.00000	14.76	17.48
0.00	ANNUAL ALL 00000005			
586860.17000	4160854.91000	0.00000	15.59	15.59
0.00	ANNUAL ALL 00000005			
586880.17000	4160854.91000	0.00000	15.76	15.76
0.00	ANNUAL ALL 00000005			
586900.17000	4160854.91000	0.00000	15.84	15.84
0.00	ANNUAL ALL 00000005			
586920.17000	4160854.91000	0.00000	15.80	15.80
0.00	ANNUAL ALL 00000005			
587000.17000	4160854.91000	0.00000	15.57	15.57
0.00	ANNUAL ALL 00000005			
587020.17000	4160854.91000	0.00000	15.65	15.65
0.00	ANNUAL ALL 00000005			
587040.17000	4160854.91000	0.00000	15.70	15.70
0.00	ANNUAL ALL 00000005			
587060.17000	4160854.91000	0.00000	15.58	15.58
0.00	ANNUAL ALL 00000005			
587080.17000	4160854.91000	0.00000	15.32	15.32
0.00	ANNUAL ALL 00000005			
587100.17000	4160854.91000	0.00000	15.31	15.31
0.00	ANNUAL ALL 00000005			
587120.17000	4160854.91000	0.00000	15.03	15.03
0.00	ANNUAL ALL 00000005			
587140.17000	4160854.91000	0.00000	14.94	14.94
0.00	ANNUAL ALL 00000005			
587160.17000	4160854.91000	0.00000	14.85	17.43
0.00	ANNUAL ALL 00000005			
587180.17000	4160854.91000	0.00000	15.80	17.54
0.00	ANNUAL ALL 00000005			
587060.17000	4160874.91000	0.00000	15.61	15.61
0.00	ANNUAL ALL 00000005			
587080.17000	4160874.91000	0.00000	15.63	15.63
0.00	ANNUAL ALL 00000005			
587100.17000	4160874.91000	0.00000	15.40	15.40
0.00	ANNUAL ALL 00000005			
587120.17000	4160874.91000	0.00000	15.12	15.12
0.00	ANNUAL ALL 00000005			
587140.17000	4160874.91000	0.00000	15.14	17.38
0.00	ANNUAL ALL 00000005			

587060.17000	4160894.91000	0.00000	15.73	15.73
0.00	ANNUAL ALL 00000005			
587080.17000	4160894.91000	0.00000	15.63	15.63
0.00	ANNUAL ALL 00000005			
587100.17000	4160894.91000	0.00000	15.62	15.62
0.00	ANNUAL ALL 00000005			
587060.17000	4160914.91000	0.00000	15.73	15.73
0.00	ANNUAL ALL 00000005			
587080.17000	4160914.91000	0.00000	15.52	15.52
0.00	ANNUAL ALL 00000005			
587060.17000	4160934.91000	0.00000	15.68	15.68
0.00	ANNUAL ALL 00000005			
586447.04000	4160991.81000	0.00000	14.62	14.62
0.00	ANNUAL ALL 00000005			
586467.04000	4160991.81000	0.00000	14.83	14.83
0.00	ANNUAL ALL 00000005			
586427.04000	4161011.81000	0.00000	15.03	15.03
0.00	ANNUAL ALL 00000005			
586447.04000	4161011.81000	0.00000	14.95	14.95
0.00	ANNUAL ALL 00000005			
586467.04000	4161011.81000	0.00000	15.12	15.12
0.00	ANNUAL ALL 00000005			
586487.04000	4161011.81000	0.00000	15.81	15.81
0.00	ANNUAL ALL 00000005			
586507.04000	4161011.81000	0.00000	16.51	16.51
0.00	ANNUAL ALL 00000005			
586407.04000	4161031.81000	0.00000	15.48	15.48
0.00	ANNUAL ALL 00000005			
586427.04000	4161031.81000	0.00000	15.66	15.66
0.00	ANNUAL ALL 00000005			
586447.04000	4161031.81000	0.00000	15.77	15.77
0.00	ANNUAL ALL 00000005			
586467.04000	4161031.81000	0.00000	15.67	15.67
0.00	ANNUAL ALL 00000005			
586487.04000	4161031.81000	0.00000	16.15	16.15
0.00	ANNUAL ALL 00000005			
586507.04000	4161031.81000	0.00000	16.80	16.80
0.00	ANNUAL ALL 00000005			
586387.04000	4161051.81000	0.00000	15.93	15.93
0.00	ANNUAL ALL 00000005			
586407.04000	4161051.81000	0.00000	15.79	15.79
0.00	ANNUAL ALL 00000005			
586427.04000	4161051.81000	0.00000	15.87	15.87
0.00	ANNUAL ALL 00000005			
586447.04000	4161051.81000	0.00000	15.93	15.93
0.00	ANNUAL ALL 00000005			
586467.04000	4161051.81000	0.00000	16.00	16.00
0.00	ANNUAL ALL 00000005			
586487.04000	4161051.81000	0.00000	16.52	16.52
0.00	ANNUAL ALL 00000005			
586507.04000	4161051.81000	0.00000	17.35	17.35
0.00	ANNUAL ALL 00000005			

586367.04000	4161071.81000	0.00000	16.42	16.42
0.00	ANNUAL ALL 00000005			
586387.04000	4161071.81000	0.00000	16.26	16.26
0.00	ANNUAL ALL 00000005			
586407.04000	4161071.81000	0.00000	15.77	15.77
0.00	ANNUAL ALL 00000005			
586427.04000	4161071.81000	0.00000	15.73	15.73
0.00	ANNUAL ALL 00000005			
586447.04000	4161071.81000	0.00000	15.60	15.60
0.00	ANNUAL ALL 00000005			
586467.04000	4161071.81000	0.00000	15.78	15.78
0.00	ANNUAL ALL 00000005			
586487.04000	4161071.81000	0.00000	16.64	16.64
0.00	ANNUAL ALL 00000005			
586507.04000	4161071.81000	0.00000	17.72	17.72
0.00	ANNUAL ALL 00000005			
586347.04000	4161091.81000	0.00000	17.21	17.21
0.00	ANNUAL ALL 00000005			
586367.04000	4161091.81000	0.00000	17.32	17.32
0.00	ANNUAL ALL 00000005			
586387.04000	4161091.81000	0.00000	16.93	16.93
0.00	ANNUAL ALL 00000005			
586407.04000	4161091.81000	0.00000	16.31	16.31
0.00	ANNUAL ALL 00000005			
586427.04000	4161091.81000	0.00000	15.81	15.81
0.00	ANNUAL ALL 00000005			
586447.04000	4161091.81000	0.00000	15.69	15.69
0.00	ANNUAL ALL 00000005			
586467.04000	4161091.81000	0.00000	15.93	15.93
0.00	ANNUAL ALL 00000005			
586487.04000	4161091.81000	0.00000	16.96	16.96
0.00	ANNUAL ALL 00000005			
586507.04000	4161091.81000	0.00000	17.54	17.54
0.00	ANNUAL ALL 00000005			
586527.04000	4161091.81000	0.00000	17.45	17.45
0.00	ANNUAL ALL 00000005			
586327.04000	4161111.81000	0.00000	17.45	17.45
0.00	ANNUAL ALL 00000005			
586347.04000	4161111.81000	0.00000	17.20	17.20
0.00	ANNUAL ALL 00000005			
586367.04000	4161111.81000	0.00000	17.32	17.32
0.00	ANNUAL ALL 00000005			
586387.04000	4161111.81000	0.00000	17.22	17.22
0.00	ANNUAL ALL 00000005			
586407.04000	4161111.81000	0.00000	17.58	17.58
0.00	ANNUAL ALL 00000005			
586427.04000	4161111.81000	0.00000	17.25	17.25
0.00	ANNUAL ALL 00000005			
586447.04000	4161111.81000	0.00000	16.79	16.79
0.00	ANNUAL ALL 00000005			
586467.04000	4161111.81000	0.00000	16.13	16.13
0.00	ANNUAL ALL 00000005			

586487.04000	4161111.81000	0.00000	17.16	17.16
0.00	ANNUAL ALL 00000005			
586507.04000	4161111.81000	0.00000	17.76	17.76
0.00	ANNUAL ALL 00000005			
586307.04000	4161131.81000	0.00000	16.56	16.56
0.00	ANNUAL ALL 00000005			
586327.04000	4161131.81000	0.00000	17.35	17.35
0.00	ANNUAL ALL 00000005			
586347.04000	4161131.81000	0.00000	17.39	17.39
0.00	ANNUAL ALL 00000005			
586367.04000	4161131.81000	0.00000	17.61	17.61
0.00	ANNUAL ALL 00000005			
586387.04000	4161131.81000	0.00000	17.70	17.70
0.00	ANNUAL ALL 00000005			
586407.04000	4161131.81000	0.00000	17.44	17.44
0.00	ANNUAL ALL 00000005			
586427.04000	4161131.81000	0.00000	17.93	17.93
0.00	ANNUAL ALL 00000005			
586447.04000	4161131.81000	0.00000	17.81	17.81
0.00	ANNUAL ALL 00000005			
586467.04000	4161131.81000	0.00000	17.58	17.58
0.00	ANNUAL ALL 00000005			
586487.04000	4161131.81000	0.00000	17.78	17.78
0.00	ANNUAL ALL 00000005			
586287.04000	4161151.81000	0.00000	16.50	16.50
0.00	ANNUAL ALL 00000005			
586307.04000	4161151.81000	0.00000	16.51	17.42
0.00	ANNUAL ALL 00000005			
586327.04000	4161151.81000	0.00000	17.65	17.65
0.00	ANNUAL ALL 00000005			
586347.04000	4161151.81000	0.00000	17.85	17.85
0.00	ANNUAL ALL 00000005			
586367.04000	4161151.81000	0.00000	17.75	17.75
0.00	ANNUAL ALL 00000005			
586387.04000	4161151.81000	0.00000	17.66	17.66
0.00	ANNUAL ALL 00000005			
586407.04000	4161151.81000	0.00000	17.98	17.98
0.00	ANNUAL ALL 00000005			
586427.04000	4161151.81000	0.00000	18.04	18.04
0.00	ANNUAL ALL 00000005			
586447.04000	4161151.81000	0.00000	18.07	18.07
0.00	ANNUAL ALL 00000005			
586467.04000	4161151.81000	0.00000	18.14	18.14
0.00	ANNUAL ALL 00000005			
586267.04000	4161171.81000	0.00000	17.05	17.05
0.00	ANNUAL ALL 00000005			
586287.04000	4161171.81000	0.00000	17.24	17.24
0.00	ANNUAL ALL 00000005			
586307.04000	4161171.81000	0.00000	17.57	17.57
0.00	ANNUAL ALL 00000005			
586327.04000	4161171.81000	0.00000	17.75	17.75
0.00	ANNUAL ALL 00000005			

586347.04000	4161171.81000	0.00000	17.74	17.74
0.00	ANNUAL ALL 00000005			
586367.04000	4161171.81000	0.00000	17.64	17.64
0.00	ANNUAL ALL 00000005			
586387.04000	4161171.81000	0.00000	17.95	17.95
0.00	ANNUAL ALL 00000005			
586407.04000	4161171.81000	0.00000	17.72	17.72
0.00	ANNUAL ALL 00000005			
586427.04000	4161171.81000	0.00000	17.96	17.96
0.00	ANNUAL ALL 00000005			
586447.04000	4161171.81000	0.00000	17.97	17.97
0.00	ANNUAL ALL 00000005			
586267.04000	4161191.81000	0.00000	17.05	17.05
0.00	ANNUAL ALL 00000005			
586287.04000	4161191.81000	0.00000	17.30	17.30
0.00	ANNUAL ALL 00000005			
586307.04000	4161191.81000	0.00000	17.60	17.60
0.00	ANNUAL ALL 00000005			
586327.04000	4161191.81000	0.00000	17.59	17.59
0.00	ANNUAL ALL 00000005			
586347.04000	4161191.81000	0.00000	17.46	17.46
0.00	ANNUAL ALL 00000005			
586367.04000	4161191.81000	0.00000	17.99	17.99
0.00	ANNUAL ALL 00000005			
586387.04000	4161191.81000	0.00000	18.22	18.22
0.00	ANNUAL ALL 00000005			
586407.04000	4161191.81000	0.00000	18.12	18.12
0.00	ANNUAL ALL 00000005			
586527.04000	4161191.81000	0.00000	17.82	17.82
0.00	ANNUAL ALL 00000005			
586547.04000	4161191.81000	0.00000	17.98	17.98
0.00	ANNUAL ALL 00000005			
586267.04000	4161211.81000	0.00000	17.09	17.09
0.00	ANNUAL ALL 00000005			
586287.04000	4161211.81000	0.00000	17.31	17.31
0.00	ANNUAL ALL 00000005			
586307.04000	4161211.81000	0.00000	17.40	17.40
0.00	ANNUAL ALL 00000005			
586327.04000	4161211.81000	0.00000	17.34	17.34
0.00	ANNUAL ALL 00000005			
586347.04000	4161211.81000	0.00000	17.56	17.56
0.00	ANNUAL ALL 00000005			
586367.04000	4161211.81000	0.00000	17.86	17.86
0.00	ANNUAL ALL 00000005			
586387.04000	4161211.81000	0.00000	18.37	18.37
0.00	ANNUAL ALL 00000005			
586487.04000	4161211.81000	0.00000	17.87	17.87
0.00	ANNUAL ALL 00000005			
586507.04000	4161211.81000	0.00000	18.14	18.14
0.00	ANNUAL ALL 00000005			
586527.04000	4161211.81000	0.00000	18.01	18.01
0.00	ANNUAL ALL 00000005			

586547.04000	4161211.81000	0.00000	18.30	18.30
0.00	ANNUAL ALL 00000005			
586267.04000	4161231.81000	0.00000	17.16	17.16
0.00	ANNUAL ALL 00000005			
586287.04000	4161231.81000	0.00000	17.25	17.25
0.00	ANNUAL ALL 00000005			
586307.04000	4161231.81000	0.00000	17.19	17.19
0.00	ANNUAL ALL 00000005			
586327.04000	4161231.81000	0.00000	17.45	17.45
0.00	ANNUAL ALL 00000005			
586347.04000	4161231.81000	0.00000	17.58	17.58
0.00	ANNUAL ALL 00000005			
586367.04000	4161231.81000	0.00000	18.30	18.30
0.00	ANNUAL ALL 00000005			
586467.04000	4161231.81000	0.00000	18.07	18.07
0.00	ANNUAL ALL 00000005			
586487.04000	4161231.81000	0.00000	18.19	18.19
0.00	ANNUAL ALL 00000005			
586507.04000	4161231.81000	0.00000	18.23	18.23
0.00	ANNUAL ALL 00000005			
586527.04000	4161231.81000	0.00000	18.36	18.36
0.00	ANNUAL ALL 00000005			
586547.04000	4161231.81000	0.00000	18.45	18.45
0.00	ANNUAL ALL 00000005			
586567.04000	4161231.81000	0.00000	18.67	18.67
0.00	ANNUAL ALL 00000005			
586267.04000	4161251.81000	0.00000	17.12	17.12
0.00	ANNUAL ALL 00000005			
586287.04000	4161251.81000	0.00000	17.11	17.11
0.00	ANNUAL ALL 00000005			
586307.04000	4161251.81000	0.00000	17.32	17.32
0.00	ANNUAL ALL 00000005			
586327.04000	4161251.81000	0.00000	17.45	17.45
0.00	ANNUAL ALL 00000005			
586347.04000	4161251.81000	0.00000	17.57	17.57
0.00	ANNUAL ALL 00000005			
586367.04000	4161251.81000	0.00000	18.15	18.15
0.00	ANNUAL ALL 00000005			
586447.04000	4161251.81000	0.00000	18.18	18.18
0.00	ANNUAL ALL 00000005			
586467.04000	4161251.81000	0.00000	18.33	18.33
0.00	ANNUAL ALL 00000005			
586487.04000	4161251.81000	0.00000	18.35	18.35
0.00	ANNUAL ALL 00000005			
586507.04000	4161251.81000	0.00000	18.40	18.40
0.00	ANNUAL ALL 00000005			
586527.04000	4161251.81000	0.00000	18.52	18.52
0.00	ANNUAL ALL 00000005			
586547.04000	4161251.81000	0.00000	18.50	18.50
0.00	ANNUAL ALL 00000005			
586567.04000	4161251.81000	0.00000	18.95	18.95
0.00	ANNUAL ALL 00000005			



586267.04000	4161271.81000	0.00000	17.13	17.13
0.00 ANNUAL ALL	00000005			
586287.04000	4161271.81000	0.00000	17.23	17.23
0.00 ANNUAL ALL	00000005			
586307.04000	4161271.81000	0.00000	17.51	17.51
0.00 ANNUAL ALL	00000005			
586327.04000	4161271.81000	0.00000	17.60	17.60
0.00 ANNUAL ALL	00000005			
586347.04000	4161271.81000	0.00000	17.73	17.73
0.00 ANNUAL ALL	00000005			
586427.04000	4161271.81000	0.00000	18.36	18.36
0.00 ANNUAL ALL	00000005			
586447.04000	4161271.81000	0.00000	18.58	18.58
0.00 ANNUAL ALL	00000005			
586467.04000	4161271.81000	0.00000	18.55	18.55
0.00 ANNUAL ALL	00000005			
586487.04000	4161271.81000	0.00000	18.52	18.52
0.00 ANNUAL ALL	00000005			
586507.04000	4161271.81000	0.00000	18.60	18.60
0.00 ANNUAL ALL	00000005			
586527.04000	4161271.81000	0.00000	18.60	18.60
0.00 ANNUAL ALL	00000005			
586547.04000	4161271.81000	0.00000	18.57	18.57
0.00 ANNUAL ALL	00000005			
586567.04000	4161271.81000	0.00000	18.71	18.71
0.00 ANNUAL ALL	00000005			
586267.04000	4161291.81000	0.00000	17.58	17.58
0.00 ANNUAL ALL	00000005			
586287.04000	4161291.81000	0.00000	17.59	17.59
0.00 ANNUAL ALL	00000005			
586307.04000	4161291.81000	0.00000	17.76	17.76
0.00 ANNUAL ALL	00000005			
586327.04000	4161291.81000	0.00000	17.97	17.97
0.00 ANNUAL ALL	00000005			
586347.04000	4161291.81000	0.00000	18.18	18.18
0.00 ANNUAL ALL	00000005			
586407.04000	4161291.81000	0.00000	18.34	18.34
0.00 ANNUAL ALL	00000005			
586427.04000	4161291.81000	0.00000	18.80	18.80
0.00 ANNUAL ALL	00000005			
586447.04000	4161291.81000	0.00000	18.74	18.74
0.00 ANNUAL ALL	00000005			
586467.04000	4161291.81000	0.00000	18.63	18.63
0.00 ANNUAL ALL	00000005			
586487.04000	4161291.81000	0.00000	18.70	18.70
0.00 ANNUAL ALL	00000005			
586507.04000	4161291.81000	0.00000	18.88	18.88
0.00 ANNUAL ALL	00000005			
586527.04000	4161291.81000	0.00000	18.85	18.85
0.00 ANNUAL ALL	00000005			
586547.04000	4161291.81000	0.00000	18.85	18.85
0.00 ANNUAL ALL	00000005			

586567.04000	4161291.81000	0.00000	18.93	18.93
0.00	ANNUAL ALL 00000005			
586587.04000	4161291.81000	0.00000	19.03	19.03
0.00	ANNUAL ALL 00000005			
586267.04000	4161311.81000	0.00000	17.79	17.79
0.00	ANNUAL ALL 00000005			
586287.04000	4161311.81000	0.00000	17.96	17.96
0.00	ANNUAL ALL 00000005			
586307.04000	4161311.81000	0.00000	18.04	18.04
0.00	ANNUAL ALL 00000005			
586327.04000	4161311.81000	0.00000	18.28	18.28
0.00	ANNUAL ALL 00000005			
586387.04000	4161311.81000	0.00000	18.36	18.36
0.00	ANNUAL ALL 00000005			
586407.04000	4161311.81000	0.00000	18.67	18.67
0.00	ANNUAL ALL 00000005			
586427.04000	4161311.81000	0.00000	18.78	18.78
0.00	ANNUAL ALL 00000005			
586447.04000	4161311.81000	0.00000	18.70	18.70
0.00	ANNUAL ALL 00000005			
586467.04000	4161311.81000	0.00000	18.77	18.77
0.00	ANNUAL ALL 00000005			
586487.04000	4161311.81000	0.00000	18.89	18.89
0.00	ANNUAL ALL 00000005			
586507.04000	4161311.81000	0.00000	18.97	18.97
0.00	ANNUAL ALL 00000005			
586527.04000	4161311.81000	0.00000	19.00	19.00
0.00	ANNUAL ALL 00000005			
586547.04000	4161311.81000	0.00000	18.98	18.98
0.00	ANNUAL ALL 00000005			
586567.04000	4161311.81000	0.00000	19.01	19.01
0.00	ANNUAL ALL 00000005			
586587.04000	4161311.81000	0.00000	19.00	19.00
0.00	ANNUAL ALL 00000005			
586267.04000	4161331.81000	0.00000	18.08	18.08
0.00	ANNUAL ALL 00000005			
586287.04000	4161331.81000	0.00000	18.22	18.22
0.00	ANNUAL ALL 00000005			
586307.04000	4161331.81000	0.00000	18.29	18.29
0.00	ANNUAL ALL 00000005			
586367.04000	4161331.81000	0.00000	18.58	18.58
0.00	ANNUAL ALL 00000005			
586387.04000	4161331.81000	0.00000	18.97	18.97
0.00	ANNUAL ALL 00000005			
586407.04000	4161331.81000	0.00000	18.77	18.77
0.00	ANNUAL ALL 00000005			
586427.04000	4161331.81000	0.00000	18.69	18.69
0.00	ANNUAL ALL 00000005			
586447.04000	4161331.81000	0.00000	18.92	18.92
0.00	ANNUAL ALL 00000005			
586467.04000	4161331.81000	0.00000	19.07	19.07
0.00	ANNUAL ALL 00000005			

586487.04000	4161331.81000	0.00000	19.06	19.06
0.00 ANNUAL ALL	00000005			
586507.04000	4161331.81000	0.00000	19.18	19.18
0.00 ANNUAL ALL	00000005			
586527.04000	4161331.81000	0.00000	19.11	19.11
0.00 ANNUAL ALL	00000005			
586547.04000	4161331.81000	0.00000	19.18	19.18
0.00 ANNUAL ALL	00000005			
586567.04000	4161331.81000	0.00000	19.25	19.25
0.00 ANNUAL ALL	00000005			
586587.04000	4161331.81000	0.00000	19.31	19.31
0.00 ANNUAL ALL	00000005			
586267.04000	4161351.81000	0.00000	18.13	18.13
0.00 ANNUAL ALL	00000005			
586287.04000	4161351.81000	0.00000	18.38	18.38
0.00 ANNUAL ALL	00000005			
586347.04000	4161351.81000	0.00000	18.99	18.99
0.00 ANNUAL ALL	00000005			
586367.04000	4161351.81000	0.00000	18.94	18.94
0.00 ANNUAL ALL	00000005			
586387.04000	4161351.81000	0.00000	18.92	18.92
0.00 ANNUAL ALL	00000005			
586407.04000	4161351.81000	0.00000	18.78	18.78
0.00 ANNUAL ALL	00000005			
586427.04000	4161351.81000	0.00000	19.09	19.09
0.00 ANNUAL ALL	00000005			
586447.04000	4161351.81000	0.00000	19.35	19.35
0.00 ANNUAL ALL	00000005			
586467.04000	4161351.81000	0.00000	19.34	19.34
0.00 ANNUAL ALL	00000005			
586487.04000	4161351.81000	0.00000	19.38	19.38
0.00 ANNUAL ALL	00000005			
586507.04000	4161351.81000	0.00000	19.32	19.32
0.00 ANNUAL ALL	00000005			
586527.04000	4161351.81000	0.00000	19.37	19.37
0.00 ANNUAL ALL	00000005			
586547.04000	4161351.81000	0.00000	19.44	19.44
0.00 ANNUAL ALL	00000005			
586567.04000	4161351.81000	0.00000	19.50	19.50
0.00 ANNUAL ALL	00000005			
586587.04000	4161351.81000	0.00000	19.58	19.58
0.00 ANNUAL ALL	00000005			
586267.04000	4161371.81000	0.00000	18.19	18.19
0.00 ANNUAL ALL	00000005			
586287.04000	4161371.81000	0.00000	18.82	18.82
0.00 ANNUAL ALL	00000005			
586327.04000	4161371.81000	0.00000	19.04	19.04
0.00 ANNUAL ALL	00000005			
586347.04000	4161371.81000	0.00000	18.93	18.93
0.00 ANNUAL ALL	00000005			
586367.04000	4161371.81000	0.00000	18.86	18.86
0.00 ANNUAL ALL	00000005			

586387.04000	4161371.81000	0.00000	18.86	18.86
0.00 ANNUAL ALL	00000005			
586407.04000	4161371.81000	0.00000	18.87	18.87
0.00 ANNUAL ALL	00000005			
586427.04000	4161371.81000	0.00000	19.40	19.40
0.00 ANNUAL ALL	00000005			
586447.04000	4161371.81000	0.00000	19.60	19.60
0.00 ANNUAL ALL	00000005			
586467.04000	4161371.81000	0.00000	19.71	19.71
0.00 ANNUAL ALL	00000005			
586487.04000	4161371.81000	0.00000	19.55	19.55
0.00 ANNUAL ALL	00000005			
586507.04000	4161371.81000	0.00000	19.47	19.47
0.00 ANNUAL ALL	00000005			
586527.04000	4161371.81000	0.00000	19.58	19.58
0.00 ANNUAL ALL	00000005			
586547.04000	4161371.81000	0.00000	19.61	19.61
0.00 ANNUAL ALL	00000005			
586567.04000	4161371.81000	0.00000	19.71	19.71
0.00 ANNUAL ALL	00000005			
586587.04000	4161371.81000	0.00000	19.81	19.81
0.00 ANNUAL ALL	00000005			
586267.04000	4161391.81000	0.00000	18.76	18.76
0.00 ANNUAL ALL	00000005			
586307.04000	4161391.81000	0.00000	19.05	19.05
0.00 ANNUAL ALL	00000005			
586327.04000	4161391.81000	0.00000	19.04	19.04
0.00 ANNUAL ALL	00000005			
586347.04000	4161391.81000	0.00000	18.99	18.99
0.00 ANNUAL ALL	00000005			
586367.04000	4161391.81000	0.00000	18.92	18.92
0.00 ANNUAL ALL	00000005			
586387.04000	4161391.81000	0.00000	18.96	18.96
0.00 ANNUAL ALL	00000005			
586407.04000	4161391.81000	0.00000	19.15	19.15
0.00 ANNUAL ALL	00000005			
586427.04000	4161391.81000	0.00000	19.38	19.38
0.00 ANNUAL ALL	00000005			
586447.04000	4161391.81000	0.00000	19.71	19.71
0.00 ANNUAL ALL	00000005			
586467.04000	4161391.81000	0.00000	19.77	19.77
0.00 ANNUAL ALL	00000005			
586487.04000	4161391.81000	0.00000	19.58	19.58
0.00 ANNUAL ALL	00000005			
586507.04000	4161391.81000	0.00000	19.70	19.70
0.00 ANNUAL ALL	00000005			
586527.04000	4161391.81000	0.00000	19.77	19.77
0.00 ANNUAL ALL	00000005			
586547.04000	4161391.81000	0.00000	19.83	19.83
0.00 ANNUAL ALL	00000005			
586567.04000	4161391.81000	0.00000	19.88	19.88
0.00 ANNUAL ALL	00000005			

586587.04000	4161391.81000	0.00000	20.23	20.23
0.00	ANNUAL ALL 00000005			
586248.57000	4161192.06000	0.00000	16.91	16.91
0.00	ANNUAL ALL 00000005			
586228.57000	4161212.06000	0.00000	16.95	16.95
0.00	ANNUAL ALL 00000005			
586248.57000	4161212.06000	0.00000	17.05	17.05
0.00	ANNUAL ALL 00000005			
586208.57000	4161232.06000	0.00000	17.11	17.11
0.00	ANNUAL ALL 00000005			
586228.57000	4161232.06000	0.00000	17.10	17.10
0.00	ANNUAL ALL 00000005			
586248.57000	4161232.06000	0.00000	17.05	17.05
0.00	ANNUAL ALL 00000005			
586188.57000	4161252.06000	0.00000	16.99	16.99
0.00	ANNUAL ALL 00000005			
586208.57000	4161252.06000	0.00000	17.41	17.41
0.00	ANNUAL ALL 00000005			
586228.57000	4161252.06000	0.00000	17.46	17.46
0.00	ANNUAL ALL 00000005			
586248.57000	4161252.06000	0.00000	17.07	17.07
0.00	ANNUAL ALL 00000005			
586168.57000	4161272.06000	0.00000	16.91	16.91
0.00	ANNUAL ALL 00000005			
586188.57000	4161272.06000	0.00000	17.18	17.18
0.00	ANNUAL ALL 00000005			
586208.57000	4161272.06000	0.00000	17.31	17.31
0.00	ANNUAL ALL 00000005			
586228.57000	4161272.06000	0.00000	17.52	17.52
0.00	ANNUAL ALL 00000005			
586248.57000	4161272.06000	0.00000	17.47	17.47
0.00	ANNUAL ALL 00000005			
586148.57000	4161292.06000	0.00000	16.70	16.70
0.00	ANNUAL ALL 00000005			
586168.57000	4161292.06000	0.00000	17.06	17.06
0.00	ANNUAL ALL 00000005			
586188.57000	4161292.06000	0.00000	17.14	17.14
0.00	ANNUAL ALL 00000005			
586208.57000	4161292.06000	0.00000	17.32	17.32
0.00	ANNUAL ALL 00000005			
586228.57000	4161292.06000	0.00000	17.44	17.44
0.00	ANNUAL ALL 00000005			
586248.57000	4161292.06000	0.00000	16.98	16.98
0.00	ANNUAL ALL 00000005			
586128.57000	4161312.06000	0.00000	16.61	16.61
0.00	ANNUAL ALL 00000005			
586148.57000	4161312.06000	0.00000	16.78	16.78
0.00	ANNUAL ALL 00000005			
586168.57000	4161312.06000	0.00000	16.94	16.94
0.00	ANNUAL ALL 00000005			
586188.57000	4161312.06000	0.00000	17.28	17.28
0.00	ANNUAL ALL 00000005			

586208.57000	4161312.06000	0.00000	17.40	17.40
0.00	ANNUAL ALL 00000005			
586228.57000	4161312.06000	0.00000	17.06	17.06
0.00	ANNUAL ALL 00000005			
586248.57000	4161312.06000	0.00000	17.85	17.85
0.00	ANNUAL ALL 00000005			
586128.57000	4161332.06000	0.00000	16.99	16.99
0.00	ANNUAL ALL 00000005			
586148.57000	4161332.06000	0.00000	16.95	16.95
0.00	ANNUAL ALL 00000005			
586168.57000	4161332.06000	0.00000	17.19	17.19
0.00	ANNUAL ALL 00000005			
586188.57000	4161332.06000	0.00000	17.42	17.42
0.00	ANNUAL ALL 00000005			
586208.57000	4161332.06000	0.00000	17.19	17.19
0.00	ANNUAL ALL 00000005			
586228.57000	4161332.06000	0.00000	17.56	17.56
0.00	ANNUAL ALL 00000005			
586248.57000	4161332.06000	0.00000	17.93	17.93
0.00	ANNUAL ALL 00000005			
586148.57000	4161352.06000	0.00000	17.26	17.26
0.00	ANNUAL ALL 00000005			
586168.57000	4161352.06000	0.00000	17.19	17.19
0.00	ANNUAL ALL 00000005			
586188.57000	4161352.06000	0.00000	17.37	17.37
0.00	ANNUAL ALL 00000005			
586208.57000	4161352.06000	0.00000	17.48	17.48
0.00	ANNUAL ALL 00000005			
586228.57000	4161352.06000	0.00000	17.69	17.69
0.00	ANNUAL ALL 00000005			
586248.57000	4161352.06000	0.00000	17.85	17.85
0.00	ANNUAL ALL 00000005			
586148.57000	4161372.06000	0.00000	17.40	17.40
0.00	ANNUAL ALL 00000005			
586168.57000	4161372.06000	0.00000	17.46	17.46
0.00	ANNUAL ALL 00000005			
586188.57000	4161372.06000	0.00000	17.62	17.62
0.00	ANNUAL ALL 00000005			
586208.57000	4161372.06000	0.00000	17.58	17.58
0.00	ANNUAL ALL 00000005			
586228.57000	4161372.06000	0.00000	17.68	17.68
0.00	ANNUAL ALL 00000005			
586248.57000	4161372.06000	0.00000	17.81	17.81
0.00	ANNUAL ALL 00000005			
586168.57000	4161392.06000	0.00000	17.55	17.55
0.00	ANNUAL ALL 00000005			
586188.57000	4161392.06000	0.00000	17.65	17.65
0.00	ANNUAL ALL 00000005			
586208.57000	4161392.06000	0.00000	17.78	17.78
0.00	ANNUAL ALL 00000005			
586228.57000	4161392.06000	0.00000	18.01	18.01
0.00	ANNUAL ALL 00000005			

586248.57000	4161392.06000	0.00000	18.06	18.06
0.00 ANNUAL ALL	00000005			
586473.03000	4160970.97000	0.00000	14.82	14.82
0.00 ANNUAL ALL	00000005			
586493.03000	4160990.97000	0.00000	15.92	15.92
0.00 ANNUAL ALL	00000005			
586763.66000	4161798.90000	0.00001	23.02	192.17
0.00 ANNUAL ALL	00000005			
586784.44000	4161799.45000	0.00001	22.70	192.17
0.00 ANNUAL ALL	00000005			
586805.76000	4161798.90000	0.00001	22.43	192.17
0.00 ANNUAL ALL	00000005			
586763.66000	4161777.03000	0.00001	22.83	192.17
0.00 ANNUAL ALL	00000005			
586743.98000	4161758.44000	0.00001	22.95	192.17
0.00 ANNUAL ALL	00000005			
586743.43000	4161678.06000	0.00001	22.36	192.17
0.00 ANNUAL ALL	00000005			
586743.98000	4161697.75000	0.00001	22.62	192.17
0.00 ANNUAL ALL	00000005			
586743.98000	4161717.98000	0.00001	22.80	192.17
0.00 ANNUAL ALL	00000005			
586744.52000	4161737.66000	0.00001	22.94	192.17
0.00 ANNUAL ALL	00000005			
586845.13000	4161718.53000	0.00001	21.83	192.17
0.00 ANNUAL ALL	00000005			
586764.21000	4161678.06000	0.00002	22.15	192.17
0.00 ANNUAL ALL	00000005			
586764.75000	4161697.75000	0.00001	22.31	192.17
0.00 ANNUAL ALL	00000005			
586724.29000	4161678.06000	0.00001	22.58	192.17
0.00 ANNUAL ALL	00000005			
586824.90000	4161678.06000	0.00001	21.82	192.17
0.00 ANNUAL ALL	00000005			
586807.41000	4161678.06000	0.00001	21.97	192.17
0.00 ANNUAL ALL	00000005			
586783.35000	4161679.16000	0.00001	22.06	192.17
0.00 ANNUAL ALL	00000005			
586763.66000	4161758.44000	0.00001	22.72	192.17
0.00 ANNUAL ALL	00000005			
586764.75000	4161738.21000	0.00001	22.64	192.17
0.00 ANNUAL ALL	00000005			
586764.75000	4161717.98000	0.00001	22.52	192.17
0.00 ANNUAL ALL	00000005			
586783.89000	4161778.13000	0.00001	22.64	192.17
0.00 ANNUAL ALL	00000005			
586784.44000	4161757.35000	0.00001	22.53	192.17
0.00 ANNUAL ALL	00000005			
586824.90000	4161797.81000	0.00001	22.24	192.17
0.00 ANNUAL ALL	00000005			
586845.13000	4161797.81000	0.00001	22.04	192.17
0.00 ANNUAL ALL	00000005			

586845.13000	4161798.36000	0.00001	22.05	192.17
0.00	ANNUAL ALL 00000005			
586804.67000	4161778.13000	0.00001	22.39	192.17
0.00	ANNUAL ALL 00000005			
586783.35000	4161697.75000	0.00001	22.24	192.17
0.00	ANNUAL ALL 00000005			
586784.44000	4161717.98000	0.00001	22.29	192.17
0.00	ANNUAL ALL 00000005			
586824.90000	4161777.58000	0.00001	22.19	192.17
0.00	ANNUAL ALL 00000005			
586845.13000	4161777.03000	0.00001	22.03	192.17
0.00	ANNUAL ALL 00000005			
586865.37000	4161777.03000	0.00001	21.86	192.17
0.00	ANNUAL ALL 00000005			
586823.81000	4161718.53000	0.00001	22.02	192.17
0.00	ANNUAL ALL 00000005			
586805.22000	4161757.35000	0.00001	22.31	192.17
0.00	ANNUAL ALL 00000005			
586824.90000	4161759.54000	0.00001	22.14	192.17
0.00	ANNUAL ALL 00000005			
586784.44000	4161738.76000	0.00001	22.45	192.17
0.00	ANNUAL ALL 00000005			
586807.41000	4161697.20000	0.00001	22.05	192.17
0.00	ANNUAL ALL 00000005			
586803.03000	4161718.53000	0.00001	22.18	192.17
0.00	ANNUAL ALL 00000005			
586864.82000	4161718.53000	0.00001	21.52	192.17
0.00	ANNUAL ALL 00000005			
586826.00000	4161697.20000	0.00001	21.82	192.17
0.00	ANNUAL ALL 00000005			
586845.13000	4161697.75000	0.00001	21.71	192.17
0.00	ANNUAL ALL 00000005			
586844.04000	4161740.40000	0.00001	21.94	192.17
0.00	ANNUAL ALL 00000005			
586807.41000	4161737.66000	0.00001	22.19	192.17
0.00	ANNUAL ALL 00000005			
586825.45000	4161737.66000	0.00001	22.07	192.17
0.00	ANNUAL ALL 00000005			
586844.04000	4161757.90000	0.00001	21.95	192.17
0.00	ANNUAL ALL 00000005			
586823.26000	4161655.64000	0.00001	21.59	192.17
0.00	ANNUAL ALL 00000005			
586847.32000	4161675.88000	0.00002	21.51	192.17
0.00	ANNUAL ALL 00000005			
586844.04000	4161653.46000	0.00001	21.33	192.17
0.00	ANNUAL ALL 00000005			
586864.82000	4161739.85000	0.00001	21.62	192.17
0.00	ANNUAL ALL 00000005			
586862.63000	4161757.35000	0.00001	21.73	192.17
0.00	ANNUAL ALL 00000005			
586797.17000	4161255.38000	0.00000	18.80	181.37
0.00	ANNUAL ALL 00000005			



586817.17000	4161255.38000	0.00000	18.71	181.37
0.00	ANNUAL ALL 00000005			
586837.17000	4161255.38000	0.00000	18.69	181.37
0.00	ANNUAL ALL 00000005			
586857.17000	4161255.38000	0.00000	18.70	181.37
0.00	ANNUAL ALL 00000005			
586877.17000	4161255.38000	0.00000	18.68	181.37
0.00	ANNUAL ALL 00000005			
586897.17000	4161255.38000	0.00000	18.69	181.37
0.00	ANNUAL ALL 00000005			
586917.17000	4161255.38000	0.00000	18.69	181.37
0.00	ANNUAL ALL 00000005			
586937.17000	4161255.38000	0.00001	18.69	181.37
0.00	ANNUAL ALL 00000005			
586957.17000	4161255.38000	0.00001	18.71	192.17
0.00	ANNUAL ALL 00000005			
586977.17000	4161255.38000	0.00001	18.76	192.17
0.00	ANNUAL ALL 00000005			
586997.17000	4161255.38000	0.00001	18.81	192.17
0.00	ANNUAL ALL 00000005			
586777.17000	4161275.38000	0.00000	18.91	181.37
0.00	ANNUAL ALL 00000005			
586797.17000	4161275.38000	0.00000	18.92	181.37
0.00	ANNUAL ALL 00000005			
586817.17000	4161275.38000	0.00000	18.85	181.37
0.00	ANNUAL ALL 00000005			
586837.17000	4161275.38000	0.00000	18.87	181.37
0.00	ANNUAL ALL 00000005			
586857.17000	4161275.38000	0.00000	18.88	181.37
0.00	ANNUAL ALL 00000005			
586877.17000	4161275.38000	0.00000	18.87	181.37
0.00	ANNUAL ALL 00000005			
586897.17000	4161275.38000	0.00001	18.88	181.37
0.00	ANNUAL ALL 00000005			
586917.17000	4161275.38000	0.00001	18.87	181.37
0.00	ANNUAL ALL 00000005			
586937.17000	4161275.38000	0.00001	18.89	192.17
0.00	ANNUAL ALL 00000005			
586957.17000	4161275.38000	0.00001	18.90	192.17
0.00	ANNUAL ALL 00000005			
586977.17000	4161275.38000	0.00001	18.89	192.17
0.00	ANNUAL ALL 00000005			
586997.17000	4161275.38000	0.00001	18.83	192.17
0.00	ANNUAL ALL 00000005			
586757.17000	4161295.38000	0.00000	19.19	181.37
0.00	ANNUAL ALL 00000005			
586777.17000	4161295.38000	0.00000	19.09	181.37
0.00	ANNUAL ALL 00000005			
586797.17000	4161295.38000	0.00000	18.98	181.37
0.00	ANNUAL ALL 00000005			
586817.17000	4161295.38000	0.00000	19.03	181.37
0.00	ANNUAL ALL 00000005			

586837.17000	4161295.38000	0.00000	19.07	181.37
0.00	ANNUAL ALL 00000005			
586857.17000	4161295.38000	0.00000	19.08	181.37
0.00	ANNUAL ALL 00000005			
586877.17000	4161295.38000	0.00001	19.09	181.37
0.00	ANNUAL ALL 00000005			
586897.17000	4161295.38000	0.00001	19.06	181.37
0.00	ANNUAL ALL 00000005			
586917.17000	4161295.38000	0.00001	19.08	192.17
0.00	ANNUAL ALL 00000005			
586937.17000	4161295.38000	0.00001	19.10	192.17
0.00	ANNUAL ALL 00000005			
586957.17000	4161295.38000	0.00001	19.06	192.17
0.00	ANNUAL ALL 00000005			
586977.17000	4161295.38000	0.00001	18.94	192.17
0.00	ANNUAL ALL 00000005			
586997.17000	4161295.38000	0.00001	18.64	192.17
0.00	ANNUAL ALL 00000005			
586737.17000	4161315.38000	0.00000	19.36	181.37
0.00	ANNUAL ALL 00000005			
586757.17000	4161315.38000	0.00000	19.35	181.37
0.00	ANNUAL ALL 00000005			
586777.17000	4161315.38000	0.00000	19.26	181.37
0.00	ANNUAL ALL 00000005			
586797.17000	4161315.38000	0.00000	19.17	181.37
0.00	ANNUAL ALL 00000005			
586817.17000	4161315.38000	0.00000	19.22	181.37
0.00	ANNUAL ALL 00000005			
586837.17000	4161315.38000	0.00000	19.24	181.37
0.00	ANNUAL ALL 00000005			
586857.17000	4161315.38000	0.00001	19.28	181.37
0.00	ANNUAL ALL 00000005			
586877.17000	4161315.38000	0.00001	19.27	181.37
0.00	ANNUAL ALL 00000005			
586897.17000	4161315.38000	0.00001	19.26	192.17
0.00	ANNUAL ALL 00000005			
586917.17000	4161315.38000	0.00001	19.30	192.17
0.00	ANNUAL ALL 00000005			
586937.17000	4161315.38000	0.00001	19.27	192.17
0.00	ANNUAL ALL 00000005			
586957.17000	4161315.38000	0.00001	19.12	192.17
0.00	ANNUAL ALL 00000005			
586977.17000	4161315.38000	0.00001	18.81	192.17
0.00	ANNUAL ALL 00000005			
586997.17000	4161315.38000	0.00001	18.56	192.17
0.00	ANNUAL ALL 00000005			
586597.17000	4161335.38000	0.00000	19.44	19.44
0.00	ANNUAL ALL 00000005			
586757.17000	4161335.38000	0.00000	19.50	181.37
0.00	ANNUAL ALL 00000005			
586777.17000	4161335.38000	0.00000	19.42	181.37
0.00	ANNUAL ALL 00000005			

586797.17000	4161335.38000	0.00000	19.38	181.37
0.00	ANNUAL ALL 00000005			
586817.17000	4161335.38000	0.00001	19.41	181.37
0.00	ANNUAL ALL 00000005			
586837.17000	4161335.38000	0.00001	19.47	181.37
0.00	ANNUAL ALL 00000005			
586857.17000	4161335.38000	0.00001	19.47	181.37
0.00	ANNUAL ALL 00000005			
586877.17000	4161335.38000	0.00001	19.49	191.71
0.00	ANNUAL ALL 00000005			
586897.17000	4161335.38000	0.00001	19.51	192.17
0.00	ANNUAL ALL 00000005			
586917.17000	4161335.38000	0.00001	19.48	192.17
0.00	ANNUAL ALL 00000005			
586937.17000	4161335.38000	0.00001	19.33	192.17
0.00	ANNUAL ALL 00000005			
586957.17000	4161335.38000	0.00001	19.04	192.17
0.00	ANNUAL ALL 00000005			
586977.17000	4161335.38000	0.00001	18.78	192.17
0.00	ANNUAL ALL 00000005			
586997.17000	4161335.38000	0.00002	18.56	192.17
0.00	ANNUAL ALL 00000005			
586597.17000	4161355.38000	0.00000	19.69	19.69
0.00	ANNUAL ALL 00000005			
586777.17000	4161355.38000	0.00001	19.65	181.37
0.00	ANNUAL ALL 00000005			
586797.17000	4161355.38000	0.00001	19.60	181.37
0.00	ANNUAL ALL 00000005			
586817.17000	4161355.38000	0.00001	19.63	181.37
0.00	ANNUAL ALL 00000005			
586837.17000	4161355.38000	0.00001	19.69	181.37
0.00	ANNUAL ALL 00000005			
586857.17000	4161355.38000	0.00001	19.69	181.37
0.00	ANNUAL ALL 00000005			
586877.17000	4161355.38000	0.00001	19.74	192.17
0.00	ANNUAL ALL 00000005			
586897.17000	4161355.38000	0.00001	19.66	192.17
0.00	ANNUAL ALL 00000005			
586917.17000	4161355.38000	0.00001	19.54	192.17
0.00	ANNUAL ALL 00000005			
586937.17000	4161355.38000	0.00001	19.30	192.17
0.00	ANNUAL ALL 00000005			
586957.17000	4161355.38000	0.00002	19.01	192.17
0.00	ANNUAL ALL 00000005			
586977.17000	4161355.38000	0.00002	18.78	192.17
0.00	ANNUAL ALL 00000005			
586997.17000	4161355.38000	0.00002	18.59	192.17
0.00	ANNUAL ALL 00000005			
586597.17000	4161375.38000	0.00000	19.89	19.89
0.00	ANNUAL ALL 00000005			
586777.17000	4161375.38000	0.00001	20.14	181.37
0.00	ANNUAL ALL 00000005			

586797.17000	4161375.38000	0.00001	19.87	181.37
0.00 ANNUAL ALL	00000005			
586817.17000	4161375.38000	0.00001	19.88	181.37
0.00 ANNUAL ALL	00000005			
586837.17000	4161375.38000	0.00001	19.94	181.37
0.00 ANNUAL ALL	00000005			
586857.17000	4161375.38000	0.00001	19.96	192.17
0.00 ANNUAL ALL	00000005			
586877.17000	4161375.38000	0.00001	19.90	192.17
0.00 ANNUAL ALL	00000005			
586897.17000	4161375.38000	0.00001	19.74	192.17
0.00 ANNUAL ALL	00000005			
586917.17000	4161375.38000	0.00001	19.51	192.17
0.00 ANNUAL ALL	00000005			
586937.17000	4161375.38000	0.00002	19.27	192.17
0.00 ANNUAL ALL	00000005			
586957.17000	4161375.38000	0.00002	19.03	192.17
0.00 ANNUAL ALL	00000005			
586977.17000	4161375.38000	0.00002	18.83	192.17
0.00 ANNUAL ALL	00000005			
586997.17000	4161375.38000	0.00002	18.69	192.17
0.00 ANNUAL ALL	00000005			
586597.17000	4161395.38000	0.00000	20.23	20.23
0.00 ANNUAL ALL	00000005			
586617.17000	4161395.38000	0.00000	20.43	20.43
0.00 ANNUAL ALL	00000005			
586757.17000	4161395.38000	0.00001	20.43	181.37
0.00 ANNUAL ALL	00000005			
586777.17000	4161395.38000	0.00001	20.89	181.37
0.00 ANNUAL ALL	00000005			
586797.17000	4161395.38000	0.00001	20.27	181.37
0.00 ANNUAL ALL	00000005			
586817.17000	4161395.38000	0.00001	20.14	181.37
0.00 ANNUAL ALL	00000005			
586837.17000	4161395.38000	0.00001	20.23	192.17
0.00 ANNUAL ALL	00000005			
586857.17000	4161395.38000	0.00001	20.10	192.17
0.00 ANNUAL ALL	00000005			
586877.17000	4161395.38000	0.00001	19.99	192.17
0.00 ANNUAL ALL	00000005			
586897.17000	4161395.38000	0.00001	19.73	192.17
0.00 ANNUAL ALL	00000005			
586917.17000	4161395.38000	0.00002	19.50	192.17
0.00 ANNUAL ALL	00000005			
586937.17000	4161395.38000	0.00002	19.28	192.17
0.00 ANNUAL ALL	00000005			
586957.17000	4161395.38000	0.00003	19.08	192.17
0.00 ANNUAL ALL	00000005			
586977.17000	4161395.38000	0.00003	18.93	192.17
0.00 ANNUAL ALL	00000005			
586997.17000	4161395.38000	0.00003	18.82	192.17
0.00 ANNUAL ALL	00000005			

586597.17000	4161415.38000	0.00000	20.55	20.55
0.00	ANNUAL ALL 00000005			
586617.17000	4161415.38000	0.00000	20.60	20.60
0.00	ANNUAL ALL 00000005			
586737.17000	4161415.38000	0.00001	20.34	181.37
0.00	ANNUAL ALL 00000005			
586757.17000	4161415.38000	0.00001	20.85	181.37
0.00	ANNUAL ALL 00000005			
586777.17000	4161415.38000	0.00001	20.82	181.37
0.00	ANNUAL ALL 00000005			
586797.17000	4161415.38000	0.00001	20.64	181.37
0.00	ANNUAL ALL 00000005			
586817.17000	4161415.38000	0.00001	20.39	181.37
0.00	ANNUAL ALL 00000005			
586837.17000	4161415.38000	0.00001	20.43	192.17
0.00	ANNUAL ALL 00000005			
586857.17000	4161415.38000	0.00001	20.20	192.17
0.00	ANNUAL ALL 00000005			
586877.17000	4161415.38000	0.00001	20.00	192.17
0.00	ANNUAL ALL 00000005			
586897.17000	4161415.38000	0.00002	19.67	192.17
0.00	ANNUAL ALL 00000005			
586917.17000	4161415.38000	0.00002	19.50	192.17
0.00	ANNUAL ALL 00000005			
586937.17000	4161415.38000	0.00003	19.35	192.17
0.00	ANNUAL ALL 00000005			
586957.17000	4161415.38000	0.00003	19.17	192.17
0.00	ANNUAL ALL 00000005			
586977.17000	4161415.38000	0.00003	19.09	192.17
0.00	ANNUAL ALL 00000005			
586997.17000	4161415.38000	0.00004	18.91	192.17
0.00	ANNUAL ALL 00000005			
586597.17000	4161435.38000	0.00000	20.80	20.80
0.00	ANNUAL ALL 00000005			
586617.17000	4161435.38000	0.00000	20.60	20.60
0.00	ANNUAL ALL 00000005			
586737.17000	4161435.38000	0.00001	20.86	181.37
0.00	ANNUAL ALL 00000005			
586757.17000	4161435.38000	0.00001	20.78	181.37
0.00	ANNUAL ALL 00000005			
586777.17000	4161435.38000	0.00001	20.73	181.37
0.00	ANNUAL ALL 00000005			
586797.17000	4161435.38000	0.00001	20.79	181.37
0.00	ANNUAL ALL 00000005			
586817.17000	4161435.38000	0.00001	20.52	192.17
0.00	ANNUAL ALL 00000005			
586837.17000	4161435.38000	0.00001	20.58	192.17
0.00	ANNUAL ALL 00000005			
586857.17000	4161435.38000	0.00001	20.32	192.17
0.00	ANNUAL ALL 00000005			
586877.17000	4161435.38000	0.00001	20.03	192.17
0.00	ANNUAL ALL 00000005			

586897.17000	4161435.38000	0.00002	19.82	192.17
0.00	ANNUAL ALL 00000005			
586917.17000	4161435.38000	0.00003	19.61	192.17
0.00	ANNUAL ALL 00000005			
586937.17000	4161435.38000	0.00004	19.50	192.17
0.00	ANNUAL ALL 00000005			
586957.17000	4161435.38000	0.00004	19.35	192.17
0.00	ANNUAL ALL 00000005			
586977.17000	4161435.38000	0.00004	19.07	192.17
0.00	ANNUAL ALL 00000005			
586597.17000	4161455.38000	0.00000	20.60	20.60
0.00	ANNUAL ALL 00000005			
586617.17000	4161455.38000	0.00000	20.64	20.64
0.00	ANNUAL ALL 00000005			
586717.17000	4161455.38000	0.00001	20.96	181.37
0.00	ANNUAL ALL 00000005			
586737.17000	4161455.38000	0.00001	20.85	181.37
0.00	ANNUAL ALL 00000005			
586757.17000	4161455.38000	0.00001	20.77	181.37
0.00	ANNUAL ALL 00000005			
586777.17000	4161455.38000	0.00001	20.71	181.37
0.00	ANNUAL ALL 00000005			
586797.17000	4161455.38000	0.00001	20.79	192.17
0.00	ANNUAL ALL 00000005			
586817.17000	4161455.38000	0.00000	20.61	192.17
0.00	ANNUAL ALL 00000005			
586837.17000	4161455.38000	0.00001	20.63	192.17
0.00	ANNUAL ALL 00000005			
586857.17000	4161455.38000	0.00001	20.37	192.17
0.00	ANNUAL ALL 00000005			
586937.17000	4161455.38000	0.00005	19.71	192.17
0.00	ANNUAL ALL 00000005			
586957.17000	4161455.38000	0.00005	19.47	192.17
0.00	ANNUAL ALL 00000005			
586597.17000	4161475.38000	0.00000	20.93	20.93
0.00	ANNUAL ALL 00000005			
586617.17000	4161475.38000	0.00000	20.92	20.92
0.00	ANNUAL ALL 00000005			
586637.17000	4161475.38000	0.00001	20.80	181.37
0.00	ANNUAL ALL 00000005			
586697.17000	4161475.38000	0.00001	21.12	181.37
0.00	ANNUAL ALL 00000005			
586717.17000	4161475.38000	0.00001	20.98	181.37
0.00	ANNUAL ALL 00000005			
586737.17000	4161475.38000	0.00001	20.94	181.37
0.00	ANNUAL ALL 00000005			
586757.17000	4161475.38000	0.00001	20.84	181.37
0.00	ANNUAL ALL 00000005			
586777.17000	4161475.38000	0.00000	20.79	191.13
0.00	ANNUAL ALL 00000005			
586797.17000	4161475.38000	0.00000	20.81	192.17
0.00	ANNUAL ALL 00000005			

586817.17000	4161475.38000	0.00000	20.64	192.17
0.00	ANNUAL ALL 00000005			
586837.17000	4161475.38000	0.00000	20.52	192.17
0.00	ANNUAL ALL 00000005			
586597.17000	4161495.38000	0.00000	21.38	21.38
0.00	ANNUAL ALL 00000005			
586617.17000	4161495.38000	0.00000	21.17	21.17
0.00	ANNUAL ALL 00000005			
586637.17000	4161495.38000	0.00001	21.15	181.37
0.00	ANNUAL ALL 00000005			
586677.17000	4161495.38000	0.00001	21.24	181.37
0.00	ANNUAL ALL 00000005			
586697.17000	4161495.38000	0.00001	21.21	181.37
0.00	ANNUAL ALL 00000005			
586717.17000	4161495.38000	0.00001	21.02	181.37
0.00	ANNUAL ALL 00000005			
586737.17000	4161495.38000	0.00001	20.88	181.37
0.00	ANNUAL ALL 00000005			
586757.17000	4161495.38000	0.00000	20.70	181.37
0.00	ANNUAL ALL 00000005			
586777.17000	4161495.38000	0.00000	20.64	192.17
0.00	ANNUAL ALL 00000005			
586797.17000	4161495.38000	0.00000	20.58	192.17
0.00	ANNUAL ALL 00000005			
586817.17000	4161495.38000	0.00000	20.76	192.17
0.00	ANNUAL ALL 00000005			
586597.17000	4161515.38000	0.00000	21.27	21.27
0.00	ANNUAL ALL 00000005			
586617.17000	4161515.38000	0.00001	21.26	181.37
0.00	ANNUAL ALL 00000005			
586637.17000	4161515.38000	0.00001	21.29	181.37
0.00	ANNUAL ALL 00000005			
586697.17000	4161515.38000	0.00001	21.34	181.37
0.00	ANNUAL ALL 00000005			
586717.17000	4161515.38000	0.00001	21.07	181.37
0.00	ANNUAL ALL 00000005			
586737.17000	4161515.38000	0.00001	20.95	181.37
0.00	ANNUAL ALL 00000005			
586757.17000	4161515.38000	0.00000	20.69	192.17
0.00	ANNUAL ALL 00000005			
586777.17000	4161515.38000	0.00000	20.51	192.17
0.00	ANNUAL ALL 00000005			
586797.17000	4161515.38000	0.00000	20.56	192.17
0.00	ANNUAL ALL 00000005			
586817.17000	4161515.38000	0.00000	20.73	192.17
0.00	ANNUAL ALL 00000005			
586837.17000	4161515.38000	0.00000	20.52	192.17
0.00	ANNUAL ALL 00000005			
586597.17000	4161535.38000	0.00000	21.35	21.35
0.00	ANNUAL ALL 00000005			
586617.17000	4161535.38000	0.00001	21.32	181.37
0.00	ANNUAL ALL 00000005			

586637.17000	4161535.38000	0.00001	21.49	181.37
0.00 ANNUAL ALL	00000005			
586697.17000	4161535.38000	0.00001	21.42	181.37
0.00 ANNUAL ALL	00000005			
586717.17000	4161535.38000	0.00001	21.18	181.37
0.00 ANNUAL ALL	00000005			
586737.17000	4161535.38000	0.00000	20.95	191.71
0.00 ANNUAL ALL	00000005			
586757.17000	4161535.38000	0.00000	20.84	192.17
0.00 ANNUAL ALL	00000005			
586777.17000	4161535.38000	0.00000	20.78	192.17
0.00 ANNUAL ALL	00000005			
586797.17000	4161535.38000	0.00000	20.86	192.17
0.00 ANNUAL ALL	00000005			
586817.17000	4161535.38000	0.00000	20.64	192.17
0.00 ANNUAL ALL	00000005			
586837.17000	4161535.38000	0.00000	20.65	192.17
0.00 ANNUAL ALL	00000005			
586857.17000	4161535.38000	0.00000	20.50	192.17
0.00 ANNUAL ALL	00000005			
586877.17000	4161535.38000	0.00000	20.48	192.17
0.00 ANNUAL ALL	00000005			
586597.17000	4161555.38000	0.00000	21.57	181.17
0.00 ANNUAL ALL	00000005			
586617.17000	4161555.38000	0.00001	21.57	181.37
0.00 ANNUAL ALL	00000005			
586637.17000	4161555.38000	0.00001	21.54	181.37
0.00 ANNUAL ALL	00000005			
586657.17000	4161555.38000	0.00001	21.66	181.37
0.00 ANNUAL ALL	00000005			
586697.17000	4161555.38000	0.00001	21.76	181.37
0.00 ANNUAL ALL	00000005			
586717.17000	4161555.38000	0.00001	21.36	181.37
0.00 ANNUAL ALL	00000005			
586737.17000	4161555.38000	0.00000	21.24	192.17
0.00 ANNUAL ALL	00000005			
586757.17000	4161555.38000	0.00000	21.15	192.17
0.00 ANNUAL ALL	00000005			
586777.17000	4161555.38000	0.00000	21.05	192.17
0.00 ANNUAL ALL	00000005			
586797.17000	4161555.38000	0.00000	20.95	192.17
0.00 ANNUAL ALL	00000005			
586817.17000	4161555.38000	0.00000	20.98	192.17
0.00 ANNUAL ALL	00000005			
586837.17000	4161555.38000	0.00000	20.75	192.17
0.00 ANNUAL ALL	00000005			
586857.17000	4161555.38000	0.00000	20.71	192.17
0.00 ANNUAL ALL	00000005			
586877.17000	4161555.38000	0.00000	20.51	192.17
0.00 ANNUAL ALL	00000005			
586897.17000	4161555.38000	0.00002	20.34	192.17
0.00 ANNUAL ALL	00000005			



586597.17000	4161575.38000	0.00000	21.75	181.37
0.00 ANNUAL ALL	00000005			
586617.17000	4161575.38000	0.00001	21.68	181.37
0.00 ANNUAL ALL	00000005			
586637.17000	4161575.38000	0.00001	21.75	181.37
0.00 ANNUAL ALL	00000005			
586657.17000	4161575.38000	0.00001	21.89	181.37
0.00 ANNUAL ALL	00000005			
586697.17000	4161575.38000	0.00001	21.87	181.37
0.00 ANNUAL ALL	00000005			
586717.17000	4161575.38000	0.00001	21.67	181.37
0.00 ANNUAL ALL	00000005			
586737.17000	4161575.38000	0.00001	21.45	192.17
0.00 ANNUAL ALL	00000005			
586757.17000	4161575.38000	0.00000	21.26	192.17
0.00 ANNUAL ALL	00000005			
586777.17000	4161575.38000	0.00000	21.10	192.17
0.00 ANNUAL ALL	00000005			
586797.17000	4161575.38000	0.00000	20.98	192.17
0.00 ANNUAL ALL	00000005			
586817.17000	4161575.38000	0.00000	20.97	192.17
0.00 ANNUAL ALL	00000005			
586837.17000	4161575.38000	0.00000	20.89	192.17
0.00 ANNUAL ALL	00000005			
586857.17000	4161575.38000	0.00000	20.86	192.17
0.00 ANNUAL ALL	00000005			
586877.17000	4161575.38000	0.00001	20.78	192.17
0.00 ANNUAL ALL	00000005			
586897.17000	4161575.38000	0.00002	20.38	192.17
0.00 ANNUAL ALL	00000005			
586917.17000	4161575.38000	0.00003	20.21	192.17
0.00 ANNUAL ALL	00000005			
586937.17000	4161575.38000	0.00005	20.65	192.17
0.00 ANNUAL ALL	00000005			
586597.17000	4161595.38000	0.00000	21.88	181.37
0.00 ANNUAL ALL	00000005			
586617.17000	4161595.38000	0.00001	22.08	181.37
0.00 ANNUAL ALL	00000005			
586637.17000	4161595.38000	0.00001	22.05	181.37
0.00 ANNUAL ALL	00000005			
586657.17000	4161595.38000	0.00001	22.09	181.37
0.00 ANNUAL ALL	00000005			
586717.17000	4161595.38000	0.00001	22.01	192.17
0.00 ANNUAL ALL	00000005			
586737.17000	4161595.38000	0.00001	21.64	192.17
0.00 ANNUAL ALL	00000005			
586757.17000	4161595.38000	0.00001	21.22	192.17
0.00 ANNUAL ALL	00000005			
586777.17000	4161595.38000	0.00001	21.02	192.17
0.00 ANNUAL ALL	00000005			
586797.17000	4161595.38000	0.00000	20.93	192.17
0.00 ANNUAL ALL	00000005			

586817.17000	4161595.38000	0.00000	20.85	192.17
0.00	ANNUAL ALL 00000005			
586837.17000	4161595.38000	0.00000	20.83	192.17
0.00	ANNUAL ALL 00000005			
586857.17000	4161595.38000	0.00000	20.74	192.17
0.00	ANNUAL ALL 00000005			
586877.17000	4161595.38000	0.00001	20.92	192.17
0.00	ANNUAL ALL 00000005			
586897.17000	4161595.38000	0.00002	20.62	192.17
0.00	ANNUAL ALL 00000005			
586917.17000	4161595.38000	0.00003	20.43	192.17
0.00	ANNUAL ALL 00000005			
586937.17000	4161595.38000	0.00004	20.30	192.17
0.00	ANNUAL ALL 00000005			
586597.17000	4161615.38000	0.00001	22.18	181.37
0.00	ANNUAL ALL 00000005			
586617.17000	4161615.38000	0.00001	22.13	181.37
0.00	ANNUAL ALL 00000005			
586637.17000	4161615.38000	0.00001	22.20	181.37
0.00	ANNUAL ALL 00000005			
586657.17000	4161615.38000	0.00001	22.24	181.37
0.00	ANNUAL ALL 00000005			
586717.17000	4161615.38000	0.00001	22.23	192.17
0.00	ANNUAL ALL 00000005			
586737.17000	4161615.38000	0.00001	21.80	192.17
0.00	ANNUAL ALL 00000005			
586757.17000	4161615.38000	0.00001	21.35	192.17
0.00	ANNUAL ALL 00000005			
586777.17000	4161615.38000	0.00001	20.99	192.17
0.00	ANNUAL ALL 00000005			
586797.17000	4161615.38000	0.00001	20.92	192.17
0.00	ANNUAL ALL 00000005			
586817.17000	4161615.38000	0.00001	20.91	192.17
0.00	ANNUAL ALL 00000005			
586837.17000	4161615.38000	0.00001	20.79	192.17
0.00	ANNUAL ALL 00000005			
586857.17000	4161615.38000	0.00001	20.80	192.17
0.00	ANNUAL ALL 00000005			
586957.17000	4161615.38000	0.00004	20.85	192.17
0.00	ANNUAL ALL 00000005			
586977.17000	4161615.38000	0.00004	20.36	192.17
0.00	ANNUAL ALL 00000005			
586997.17000	4161615.38000	0.00004	20.14	192.17
0.00	ANNUAL ALL 00000005			
586597.17000	4161635.38000	0.00001	22.41	181.37
0.00	ANNUAL ALL 00000005			
586617.17000	4161635.38000	0.00001	22.26	181.37
0.00	ANNUAL ALL 00000005			
586637.17000	4161635.38000	0.00001	22.30	181.37
0.00	ANNUAL ALL 00000005			
586657.17000	4161635.38000	0.00001	22.63	181.37
0.00	ANNUAL ALL 00000005			

586677.17000	4161635.38000	0.00001	22.81	181.37
0.00 ANNUAL ALL	00000005			
586717.17000	4161635.38000	0.00001	22.43	192.17
0.00 ANNUAL ALL	00000005			
586737.17000	4161635.38000	0.00001	22.00	192.17
0.00 ANNUAL ALL	00000005			
586757.17000	4161635.38000	0.00001	21.56	192.17
0.00 ANNUAL ALL	00000005			
586777.17000	4161635.38000	0.00001	21.23	192.17
0.00 ANNUAL ALL	00000005			
586957.17000	4161635.38000	0.00003	21.08	192.17
0.00 ANNUAL ALL	00000005			
586977.17000	4161635.38000	0.00003	20.81	192.17
0.00 ANNUAL ALL	00000005			
586997.17000	4161635.38000	0.00003	19.80	192.17
0.00 ANNUAL ALL	00000005			
586597.17000	4161655.38000	0.00001	22.38	181.37
0.00 ANNUAL ALL	00000005			
586617.17000	4161655.38000	0.00001	22.45	181.37
0.00 ANNUAL ALL	00000005			
586637.17000	4161655.38000	0.00001	22.47	181.37
0.00 ANNUAL ALL	00000005			
586657.17000	4161655.38000	0.00001	22.79	181.37
0.00 ANNUAL ALL	00000005			
586677.17000	4161655.38000	0.00001	23.00	181.37
0.00 ANNUAL ALL	00000005			
586717.17000	4161655.38000	0.00001	22.48	192.17
0.00 ANNUAL ALL	00000005			
586797.17000	4161655.38000	0.00001	21.51	192.17
0.00 ANNUAL ALL	00000005			
586817.17000	4161655.38000	0.00001	21.57	192.17
0.00 ANNUAL ALL	00000005			
586837.17000	4161655.38000	0.00001	21.46	192.17
0.00 ANNUAL ALL	00000005			
586957.17000	4161655.38000	0.00003	20.68	192.17
0.00 ANNUAL ALL	00000005			
586977.17000	4161655.38000	0.00003	21.03	192.17
0.00 ANNUAL ALL	00000005			
586997.17000	4161655.38000	0.00003	20.69	192.17
0.00 ANNUAL ALL	00000005			
587381.41000	4161195.94000	0.00001	17.78	192.17
0.00 ANNUAL ALL	00000005			
587401.41000	4161195.94000	0.00001	17.58	192.17
0.00 ANNUAL ALL	00000005			
587361.41000	4161215.94000	0.00001	17.79	192.17
0.00 ANNUAL ALL	00000005			
587381.41000	4161215.94000	0.00001	18.17	192.17
0.00 ANNUAL ALL	00000005			
587401.41000	4161215.94000	0.00001	17.98	192.17
0.00 ANNUAL ALL	00000005			
587341.41000	4161235.94000	0.00001	17.56	192.17
0.00 ANNUAL ALL	00000005			

587361.41000	4161235.94000	0.00001	18.13	192.17
0.00	ANNUAL ALL 00000005			
587381.41000	4161235.94000	0.00001	17.67	192.17
0.00	ANNUAL ALL 00000005			
587401.41000	4161235.94000	0.00001	17.97	192.17
0.00	ANNUAL ALL 00000005			
587321.41000	4161255.94000	0.00001	17.51	192.17
0.00	ANNUAL ALL 00000005			
587341.41000	4161255.94000	0.00001	18.17	192.17
0.00	ANNUAL ALL 00000005			
587361.41000	4161255.94000	0.00001	17.66	192.17
0.00	ANNUAL ALL 00000005			
587381.41000	4161255.94000	0.00001	17.76	192.17
0.00	ANNUAL ALL 00000005			
587401.41000	4161255.94000	0.00001	17.60	192.17
0.00	ANNUAL ALL 00000005			
587021.41000	4161275.94000	0.00001	18.47	192.17
0.00	ANNUAL ALL 00000005			
587301.41000	4161275.94000	0.00001	17.54	192.17
0.00	ANNUAL ALL 00000005			
587321.41000	4161275.94000	0.00001	17.96	192.17
0.00	ANNUAL ALL 00000005			
587341.41000	4161275.94000	0.00001	17.67	192.17
0.00	ANNUAL ALL 00000005			
587361.41000	4161275.94000	0.00001	17.90	192.17
0.00	ANNUAL ALL 00000005			
587381.41000	4161275.94000	0.00001	18.28	192.17
0.00	ANNUAL ALL 00000005			
587401.41000	4161275.94000	0.00001	18.13	192.17
0.00	ANNUAL ALL 00000005			
587021.41000	4161295.94000	0.00001	18.46	192.17
0.00	ANNUAL ALL 00000005			
587041.41000	4161295.94000	0.00001	18.37	192.17
0.00	ANNUAL ALL 00000005			
587301.41000	4161295.94000	0.00001	18.09	192.17
0.00	ANNUAL ALL 00000005			
587321.41000	4161295.94000	0.00001	17.69	192.17
0.00	ANNUAL ALL 00000005			
587341.41000	4161295.94000	0.00001	17.61	192.17
0.00	ANNUAL ALL 00000005			
587361.41000	4161295.94000	0.00001	17.84	192.17
0.00	ANNUAL ALL 00000005			
587381.41000	4161295.94000	0.00001	18.46	192.17
0.00	ANNUAL ALL 00000005			
587401.41000	4161295.94000	0.00001	18.54	192.17
0.00	ANNUAL ALL 00000005			
587021.41000	4161315.94000	0.00001	18.31	192.17
0.00	ANNUAL ALL 00000005			
587041.41000	4161315.94000	0.00002	18.23	192.17
0.00	ANNUAL ALL 00000005			
587061.41000	4161315.94000	0.00002	18.22	192.17
0.00	ANNUAL ALL 00000005			

587281.41000	4161315.94000	0.00001	18.21	192.17
0.00	ANNUAL ALL 00000005			
587301.41000	4161315.94000	0.00001	17.82	192.17
0.00	ANNUAL ALL 00000005			
587321.41000	4161315.94000	0.00001	17.86	192.17
0.00	ANNUAL ALL 00000005			
587341.41000	4161315.94000	0.00001	18.20	192.17
0.00	ANNUAL ALL 00000005			
587361.41000	4161315.94000	0.00001	18.16	192.17
0.00	ANNUAL ALL 00000005			
587381.41000	4161315.94000	0.00001	18.24	192.17
0.00	ANNUAL ALL 00000005			
587401.41000	4161315.94000	0.00001	19.10	192.17
0.00	ANNUAL ALL 00000005			
587021.41000	4161335.94000	0.00002	18.34	192.17
0.00	ANNUAL ALL 00000005			
587041.41000	4161335.94000	0.00002	18.24	192.17
0.00	ANNUAL ALL 00000005			
587061.41000	4161335.94000	0.00002	18.23	192.17
0.00	ANNUAL ALL 00000005			
587081.41000	4161335.94000	0.00002	18.11	192.17
0.00	ANNUAL ALL 00000005			
587261.41000	4161335.94000	0.00002	17.47	192.17
0.00	ANNUAL ALL 00000005			
587281.41000	4161335.94000	0.00002	18.06	192.17
0.00	ANNUAL ALL 00000005			
587301.41000	4161335.94000	0.00001	17.90	192.17
0.00	ANNUAL ALL 00000005			
587321.41000	4161335.94000	0.00001	18.14	192.17
0.00	ANNUAL ALL 00000005			
587341.41000	4161335.94000	0.00001	18.85	192.17
0.00	ANNUAL ALL 00000005			
587361.41000	4161335.94000	0.00001	18.66	192.17
0.00	ANNUAL ALL 00000005			
587381.41000	4161335.94000	0.00001	18.36	192.17
0.00	ANNUAL ALL 00000005			
587401.41000	4161335.94000	0.00001	18.85	192.17
0.00	ANNUAL ALL 00000005			
587021.41000	4161355.94000	0.00002	18.49	192.17
0.00	ANNUAL ALL 00000005			
587041.41000	4161355.94000	0.00002	18.31	192.17
0.00	ANNUAL ALL 00000005			
587061.41000	4161355.94000	0.00002	18.16	192.17
0.00	ANNUAL ALL 00000005			
587081.41000	4161355.94000	0.00002	18.08	192.17
0.00	ANNUAL ALL 00000005			
587101.41000	4161355.94000	0.00002	18.00	192.17
0.00	ANNUAL ALL 00000005			
587241.41000	4161355.94000	0.00002	17.99	192.17
0.00	ANNUAL ALL 00000005			
587261.41000	4161355.94000	0.00002	17.85	192.17
0.00	ANNUAL ALL 00000005			

587281.41000	4161355.94000	0.00002	17.66	192.17
0.00	ANNUAL ALL 00000005			
587301.41000	4161355.94000	0.00002	18.40	192.17
0.00	ANNUAL ALL 00000005			
587321.41000	4161355.94000	0.00001	18.83	192.17
0.00	ANNUAL ALL 00000005			
587341.41000	4161355.94000	0.00001	18.97	192.17
0.00	ANNUAL ALL 00000005			
587361.41000	4161355.94000	0.00001	18.47	192.17
0.00	ANNUAL ALL 00000005			
587381.41000	4161355.94000	0.00001	18.81	192.17
0.00	ANNUAL ALL 00000005			
587401.41000	4161355.94000	0.00001	18.96	192.17
0.00	ANNUAL ALL 00000005			
587021.41000	4161375.94000	0.00003	18.55	192.17
0.00	ANNUAL ALL 00000005			
587041.41000	4161375.94000	0.00003	18.28	192.17
0.00	ANNUAL ALL 00000005			
587061.41000	4161375.94000	0.00003	18.42	192.17
0.00	ANNUAL ALL 00000005			
587081.41000	4161375.94000	0.00003	18.41	192.17
0.00	ANNUAL ALL 00000005			
587101.41000	4161375.94000	0.00003	17.98	192.17
0.00	ANNUAL ALL 00000005			
587121.41000	4161375.94000	0.00003	17.89	192.17
0.00	ANNUAL ALL 00000005			
587221.41000	4161375.94000	0.00002	18.54	192.17
0.00	ANNUAL ALL 00000005			
587241.41000	4161375.94000	0.00002	18.36	192.17
0.00	ANNUAL ALL 00000005			
587261.41000	4161375.94000	0.00002	18.02	192.17
0.00	ANNUAL ALL 00000005			
587281.41000	4161375.94000	0.00002	17.90	192.17
0.00	ANNUAL ALL 00000005			
587301.41000	4161375.94000	0.00002	17.72	192.17
0.00	ANNUAL ALL 00000005			
587321.41000	4161375.94000	0.00002	18.98	192.17
0.00	ANNUAL ALL 00000005			
587341.41000	4161375.94000	0.00001	18.63	192.17
0.00	ANNUAL ALL 00000005			
587361.41000	4161375.94000	0.00001	18.73	192.17
0.00	ANNUAL ALL 00000005			
587381.41000	4161375.94000	0.00001	18.94	192.17
0.00	ANNUAL ALL 00000005			
587401.41000	4161375.94000	0.00001	19.40	192.17
0.00	ANNUAL ALL 00000005			
587021.41000	4161395.94000	0.00003	18.35	192.17
0.00	ANNUAL ALL 00000005			
587041.41000	4161395.94000	0.00003	18.75	192.17
0.00	ANNUAL ALL 00000005			
587061.41000	4161395.94000	0.00003	18.73	192.17
0.00	ANNUAL ALL 00000005			

587081.41000	4161395.94000	0.00003	18.60	192.17
0.00 ANNUAL ALL	00000005			
587101.41000	4161395.94000	0.00003	18.45	192.17
0.00 ANNUAL ALL	00000005			
587121.41000	4161395.94000	0.00003	17.76	192.17
0.00 ANNUAL ALL	00000005			
587141.41000	4161395.94000	0.00003	18.01	192.17
0.00 ANNUAL ALL	00000005			
587201.41000	4161395.94000	0.00002	18.43	192.17
0.00 ANNUAL ALL	00000005			
587221.41000	4161395.94000	0.00002	18.31	192.17
0.00 ANNUAL ALL	00000005			
587241.41000	4161395.94000	0.00002	18.00	192.17
0.00 ANNUAL ALL	00000005			
587261.41000	4161395.94000	0.00002	18.45	192.17
0.00 ANNUAL ALL	00000005			
587281.41000	4161395.94000	0.00002	18.32	192.17
0.00 ANNUAL ALL	00000005			
587301.41000	4161395.94000	0.00002	17.81	192.17
0.00 ANNUAL ALL	00000005			
587321.41000	4161395.94000	0.00002	18.05	192.17
0.00 ANNUAL ALL	00000005			
587341.41000	4161395.94000	0.00002	18.68	192.17
0.00 ANNUAL ALL	00000005			
587361.41000	4161395.94000	0.00001	18.87	192.17
0.00 ANNUAL ALL	00000005			
587381.41000	4161395.94000	0.00001	19.45	192.17
0.00 ANNUAL ALL	00000005			
587401.41000	4161395.94000	0.00001	19.61	192.17
0.00 ANNUAL ALL	00000005			
587061.41000	4161415.94000	0.00004	18.42	192.17
0.00 ANNUAL ALL	00000005			
587081.41000	4161415.94000	0.00003	18.69	192.17
0.00 ANNUAL ALL	00000005			
587101.41000	4161415.94000	0.00003	18.56	192.17
0.00 ANNUAL ALL	00000005			
587121.41000	4161415.94000	0.00003	18.41	192.17
0.00 ANNUAL ALL	00000005			
587141.41000	4161415.94000	0.00003	18.20	192.17
0.00 ANNUAL ALL	00000005			
587181.41000	4161415.94000	0.00003	18.47	192.17
0.00 ANNUAL ALL	00000005			
587201.41000	4161415.94000	0.00002	18.45	192.17
0.00 ANNUAL ALL	00000005			
587221.41000	4161415.94000	0.00002	18.05	192.17
0.00 ANNUAL ALL	00000005			
587241.41000	4161415.94000	0.00002	18.11	192.17
0.00 ANNUAL ALL	00000005			
587261.41000	4161415.94000	0.00002	17.97	192.17
0.00 ANNUAL ALL	00000005			
587281.41000	4161415.94000	0.00002	18.49	192.17
0.00 ANNUAL ALL	00000005			

587301.41000	4161415.94000	0.00002	18.67	192.17
0.00	ANNUAL ALL 00000005			
587321.41000	4161415.94000	0.00002	18.43	192.17
0.00	ANNUAL ALL 00000005			
587341.41000	4161415.94000	0.00002	18.68	192.17
0.00	ANNUAL ALL 00000005			
587361.41000	4161415.94000	0.00001	19.37	192.17
0.00	ANNUAL ALL 00000005			
587381.41000	4161415.94000	0.00001	20.18	192.17
0.00	ANNUAL ALL 00000005			
587401.41000	4161415.94000	0.00001	19.97	192.17
0.00	ANNUAL ALL 00000005			
587081.41000	4161435.94000	0.00004	18.13	192.17
0.00	ANNUAL ALL 00000005			
587101.41000	4161435.94000	0.00004	18.60	192.17
0.00	ANNUAL ALL 00000005			
587121.41000	4161435.94000	0.00003	18.53	192.17
0.00	ANNUAL ALL 00000005			
587161.41000	4161435.94000	0.00003	18.58	192.17
0.00	ANNUAL ALL 00000005			
587181.41000	4161435.94000	0.00003	18.60	192.17
0.00	ANNUAL ALL 00000005			
587201.41000	4161435.94000	0.00003	18.15	192.17
0.00	ANNUAL ALL 00000005			
587221.41000	4161435.94000	0.00002	18.48	192.17
0.00	ANNUAL ALL 00000005			
587241.41000	4161435.94000	0.00002	18.48	192.17
0.00	ANNUAL ALL 00000005			
587261.41000	4161435.94000	0.00002	18.34	192.17
0.00	ANNUAL ALL 00000005			
587281.41000	4161435.94000	0.00002	18.26	192.17
0.00	ANNUAL ALL 00000005			
587301.41000	4161435.94000	0.00002	19.01	192.17
0.00	ANNUAL ALL 00000005			
587321.41000	4161435.94000	0.00002	19.30	192.17
0.00	ANNUAL ALL 00000005			
587341.41000	4161435.94000	0.00002	19.16	192.17
0.00	ANNUAL ALL 00000005			
587361.41000	4161435.94000	0.00002	20.00	192.17
0.00	ANNUAL ALL 00000005			
587381.41000	4161435.94000	0.00001	20.35	192.17
0.00	ANNUAL ALL 00000005			
587401.41000	4161435.94000	0.00001	20.78	192.17
0.00	ANNUAL ALL 00000005			
587101.41000	4161455.94000	0.00004	18.20	192.17
0.00	ANNUAL ALL 00000005			
587141.41000	4161455.94000	0.00003	18.52	192.17
0.00	ANNUAL ALL 00000005			
587161.41000	4161455.94000	0.00003	18.71	192.17
0.00	ANNUAL ALL 00000005			
587181.41000	4161455.94000	0.00003	18.31	192.17
0.00	ANNUAL ALL 00000005			



587201.41000	4161455.94000	0.00003	18.12	192.17
0.00	ANNUAL ALL 00000005			
587221.41000	4161455.94000	0.00002	18.43	192.17
0.00	ANNUAL ALL 00000005			
587241.41000	4161455.94000	0.00002	18.64	192.17
0.00	ANNUAL ALL 00000005			
587261.41000	4161455.94000	0.00002	18.62	192.17
0.00	ANNUAL ALL 00000005			
587281.41000	4161455.94000	0.00002	18.86	192.17
0.00	ANNUAL ALL 00000005			
587301.41000	4161455.94000	0.00002	18.95	192.17
0.00	ANNUAL ALL 00000005			
587321.41000	4161455.94000	0.00002	19.45	192.17
0.00	ANNUAL ALL 00000005			
587341.41000	4161455.94000	0.00002	19.41	192.17
0.00	ANNUAL ALL 00000005			
587361.41000	4161455.94000	0.00002	19.75	192.17
0.00	ANNUAL ALL 00000005			
587381.41000	4161455.94000	0.00001	20.28	192.17
0.00	ANNUAL ALL 00000005			
587401.41000	4161455.94000	0.00001	20.61	192.17
0.00	ANNUAL ALL 00000005			
587141.41000	4161475.94000	0.00003	18.79	192.17
0.00	ANNUAL ALL 00000005			
587161.41000	4161475.94000	0.00003	18.39	192.17
0.00	ANNUAL ALL 00000005			
587181.41000	4161475.94000	0.00003	18.47	192.17
0.00	ANNUAL ALL 00000005			
587201.41000	4161475.94000	0.00003	18.58	192.17
0.00	ANNUAL ALL 00000005			
587221.41000	4161475.94000	0.00002	18.25	192.17
0.00	ANNUAL ALL 00000005			
587241.41000	4161475.94000	0.00002	18.32	192.17
0.00	ANNUAL ALL 00000005			
587261.41000	4161475.94000	0.00002	18.74	192.17
0.00	ANNUAL ALL 00000005			
587281.41000	4161475.94000	0.00002	19.32	192.17
0.00	ANNUAL ALL 00000005			
587301.41000	4161475.94000	0.00002	19.50	192.17
0.00	ANNUAL ALL 00000005			
587321.41000	4161475.94000	0.00002	19.46	192.17
0.00	ANNUAL ALL 00000005			
587341.41000	4161475.94000	0.00002	20.15	192.17
0.00	ANNUAL ALL 00000005			
587361.41000	4161475.94000	0.00002	19.80	192.17
0.00	ANNUAL ALL 00000005			
587381.41000	4161475.94000	0.00001	19.93	192.17
0.00	ANNUAL ALL 00000005			
587401.41000	4161475.94000	0.00001	20.26	192.17
0.00	ANNUAL ALL 00000005			
587121.41000	4161495.94000	0.00004	18.84	192.17
0.00	ANNUAL ALL 00000005			

587141.41000	4161495.94000	0.00004	18.41	192.17
0.00	ANNUAL ALL 00000005			
587161.41000	4161495.94000	0.00003	18.57	192.17
0.00	ANNUAL ALL 00000005			
587181.41000	4161495.94000	0.00003	18.74	192.17
0.00	ANNUAL ALL 00000005			
587201.41000	4161495.94000	0.00003	18.83	192.17
0.00	ANNUAL ALL 00000005			
587221.41000	4161495.94000	0.00003	18.54	192.17
0.00	ANNUAL ALL 00000005			
587241.41000	4161495.94000	0.00002	18.40	192.17
0.00	ANNUAL ALL 00000005			
587261.41000	4161495.94000	0.00002	18.84	192.17
0.00	ANNUAL ALL 00000005			
587281.41000	4161495.94000	0.00002	19.19	192.17
0.00	ANNUAL ALL 00000005			
587301.41000	4161495.94000	0.00002	19.39	192.17
0.00	ANNUAL ALL 00000005			
587321.41000	4161495.94000	0.00002	19.73	192.17
0.00	ANNUAL ALL 00000005			
587341.41000	4161495.94000	0.00002	20.20	192.17
0.00	ANNUAL ALL 00000005			
587361.41000	4161495.94000	0.00002	20.32	192.17
0.00	ANNUAL ALL 00000005			
587381.41000	4161495.94000	0.00001	19.94	192.17
0.00	ANNUAL ALL 00000005			
587401.41000	4161495.94000	0.00001	20.05	192.17
0.00	ANNUAL ALL 00000005			
587101.41000	4161515.94000	0.00004	19.09	192.17
0.00	ANNUAL ALL 00000005			
587121.41000	4161515.94000	0.00004	18.56	192.17
0.00	ANNUAL ALL 00000005			
587141.41000	4161515.94000	0.00004	18.57	192.17
0.00	ANNUAL ALL 00000005			
587161.41000	4161515.94000	0.00003	18.80	192.17
0.00	ANNUAL ALL 00000005			
587181.41000	4161515.94000	0.00003	19.02	192.17
0.00	ANNUAL ALL 00000005			
587201.41000	4161515.94000	0.00003	18.84	192.17
0.00	ANNUAL ALL 00000005			
587221.41000	4161515.94000	0.00002	18.52	192.17
0.00	ANNUAL ALL 00000005			
587241.41000	4161515.94000	0.00002	18.86	192.17
0.00	ANNUAL ALL 00000005			
587261.41000	4161515.94000	0.00002	19.08	192.17
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587281.41000	4161515.94000	0.00002	19.34	192.17
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587301.41000	4161515.94000	0.00002	19.30	192.17
0.00	ANNUAL ALL 00000005			
587321.41000	4161515.94000	0.00002	19.53	192.17
0.00	ANNUAL ALL 00000005			

587341.41000	4161515.94000	0.00002	19.92	192.17
0.00	ANNUAL ALL 00000005			
587361.41000	4161515.94000	0.00002	20.35	192.17
0.00	ANNUAL ALL 00000005			
587381.41000	4161515.94000	0.00001	20.64	192.17
0.00	ANNUAL ALL 00000005			
587401.41000	4161515.94000	0.00001	20.45	192.17
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587081.41000	4161535.94000	0.00005	19.74	192.17
0.00	ANNUAL ALL 00000005			
587101.41000	4161535.94000	0.00004	19.05	192.17
0.00	ANNUAL ALL 00000005			
587121.41000	4161535.94000	0.00004	18.55	192.17
0.00	ANNUAL ALL 00000005			
587141.41000	4161535.94000	0.00003	18.97	192.17
0.00	ANNUAL ALL 00000005			
587161.41000	4161535.94000	0.00003	19.09	192.17
0.00	ANNUAL ALL 00000005			
587181.41000	4161535.94000	0.00003	19.03	192.17
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587201.41000	4161535.94000	0.00003	18.52	192.17
0.00	ANNUAL ALL 00000005			
587221.41000	4161535.94000	0.00002	18.90	192.17
0.00	ANNUAL ALL 00000005			
587241.41000	4161535.94000	0.00002	19.13	192.17
0.00	ANNUAL ALL 00000005			
587261.41000	4161535.94000	0.00002	19.35	192.17
0.00	ANNUAL ALL 00000005			
587281.41000	4161535.94000	0.00002	19.70	192.17
0.00	ANNUAL ALL 00000005			
587301.41000	4161535.94000	0.00002	19.96	192.17
0.00	ANNUAL ALL 00000005			
587321.41000	4161535.94000	0.00002	19.64	192.17
0.00	ANNUAL ALL 00000005			
587341.41000	4161535.94000	0.00002	19.76	192.17
0.00	ANNUAL ALL 00000005			
587361.41000	4161535.94000	0.00001	20.06	192.17
0.00	ANNUAL ALL 00000005			
587381.41000	4161535.94000	0.00001	20.51	192.17
0.00	ANNUAL ALL 00000005			
587401.41000	4161535.94000	0.00001	20.85	192.17
0.00	ANNUAL ALL 00000005			
587061.41000	4161555.94000	0.00005	20.11	192.17
0.00	ANNUAL ALL 00000005			
587081.41000	4161555.94000	0.00004	19.69	192.17
0.00	ANNUAL ALL 00000005			
587101.41000	4161555.94000	0.00004	19.23	192.17
0.00	ANNUAL ALL 00000005			
587121.41000	4161555.94000	0.00004	19.41	192.17
0.00	ANNUAL ALL 00000005			
587141.41000	4161555.94000	0.00003	19.31	192.17
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587161.41000	4161555.94000	0.00003	19.14	192.17
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587181.41000	4161555.94000	0.00003	18.72	192.17
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587201.41000	4161555.94000	0.00003	19.01	192.17
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587221.41000	4161555.94000	0.00002	19.13	192.17
0.00	ANNUAL ALL 00000005			
587241.41000	4161555.94000	0.00002	19.22	192.17
0.00	ANNUAL ALL 00000005			
587261.41000	4161555.94000	0.00002	19.63	192.17
0.00	ANNUAL ALL 00000005			
587281.41000	4161555.94000	0.00002	19.93	192.17
0.00	ANNUAL ALL 00000005			
587301.41000	4161555.94000	0.00002	20.17	192.17
0.00	ANNUAL ALL 00000005			
587321.41000	4161555.94000	0.00002	20.12	192.17
0.00	ANNUAL ALL 00000005			
587341.41000	4161555.94000	0.00002	19.54	192.17
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587361.41000	4161555.94000	0.00001	20.18	192.17
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587381.41000	4161555.94000	0.00001	20.43	192.17
0.00	ANNUAL ALL 00000005			
587401.41000	4161555.94000	0.00001	21.64	192.17
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587041.41000	4161575.94000	0.00005	19.65	192.17
0.00	ANNUAL ALL 00000005			
587061.41000	4161575.94000	0.00005	19.88	192.17
0.00	ANNUAL ALL 00000005			
587081.41000	4161575.94000	0.00004	19.64	192.17
0.00	ANNUAL ALL 00000005			
587101.41000	4161575.94000	0.00004	19.88	192.17
0.00	ANNUAL ALL 00000005			
587121.41000	4161575.94000	0.00003	19.80	192.17
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587141.41000	4161575.94000	0.00003	19.59	192.17
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587161.41000	4161575.94000	0.00003	18.98	192.17
0.00	ANNUAL ALL 00000005			
587181.41000	4161575.94000	0.00003	19.13	192.17
0.00	ANNUAL ALL 00000005			
587201.41000	4161575.94000	0.00002	19.20	192.17
0.00	ANNUAL ALL 00000005			
587221.41000	4161575.94000	0.00002	19.24	192.17
0.00	ANNUAL ALL 00000005			
587241.41000	4161575.94000	0.00002	19.60	192.17
0.00	ANNUAL ALL 00000005			
587261.41000	4161575.94000	0.00002	19.84	192.17
0.00	ANNUAL ALL 00000005			
587281.41000	4161575.94000	0.00002	20.13	192.17
0.00	ANNUAL ALL 00000005			

587301.41000	4161575.94000	0.00002	19.98	192.17
0.00	ANNUAL ALL 00000005			
587321.41000	4161575.94000	0.00002	19.69	192.17
0.00	ANNUAL ALL 00000005			
587341.41000	4161575.94000	0.00002	20.07	192.17
0.00	ANNUAL ALL 00000005			
587361.41000	4161575.94000	0.00001	20.35	192.17
0.00	ANNUAL ALL 00000005			
587381.41000	4161575.94000	0.00001	21.53	192.17
0.00	ANNUAL ALL 00000005			
587401.41000	4161575.94000	0.00001	21.68	192.17
0.00	ANNUAL ALL 00000005			
587001.41000	4161595.94000	0.00005	20.08	192.17
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587021.41000	4161595.94000	0.00005	20.08	192.17
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587041.41000	4161595.94000	0.00004	19.69	192.17
0.00	ANNUAL ALL 00000005			
587061.41000	4161595.94000	0.00004	19.41	192.17
0.00	ANNUAL ALL 00000005			
587081.41000	4161595.94000	0.00004	19.68	192.17
0.00	ANNUAL ALL 00000005			
587101.41000	4161595.94000	0.00003	20.08	192.17
0.00	ANNUAL ALL 00000005			
587121.41000	4161595.94000	0.00003	20.01	192.17
0.00	ANNUAL ALL 00000005			
587141.41000	4161595.94000	0.00003	19.42	192.17
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587161.41000	4161595.94000	0.00003	19.44	192.17
0.00	ANNUAL ALL 00000005			
587181.41000	4161595.94000	0.00003	19.43	192.17
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587201.41000	4161595.94000	0.00002	19.33	192.17
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587221.41000	4161595.94000	0.00002	19.56	192.17
0.00	ANNUAL ALL 00000005			
587241.41000	4161595.94000	0.00002	19.88	192.17
0.00	ANNUAL ALL 00000005			
587261.41000	4161595.94000	0.00002	20.16	192.17
0.00	ANNUAL ALL 00000005			
587281.41000	4161595.94000	0.00002	20.22	192.17
0.00	ANNUAL ALL 00000005			
587301.41000	4161595.94000	0.00002	19.71	192.17
0.00	ANNUAL ALL 00000005			
587321.41000	4161595.94000	0.00002	20.08	192.17
0.00	ANNUAL ALL 00000005			
587341.41000	4161595.94000	0.00001	20.44	192.17
0.00	ANNUAL ALL 00000005			
587361.41000	4161595.94000	0.00001	21.06	192.17
0.00	ANNUAL ALL 00000005			
587381.41000	4161595.94000	0.00001	21.50	192.17
0.00	ANNUAL ALL 00000005			

587401.41000	4161595.94000	0.00001	21.56	192.17
0.00	ANNUAL ALL 00000005			
586851.59000	4160859.89000	0.00000	15.67	15.67
0.00	ANNUAL ALL 00000005			
586871.59000	4160859.89000	0.00000	15.76	15.76
0.00	ANNUAL ALL 00000005			
586891.59000	4160859.89000	0.00000	15.85	15.85
0.00	ANNUAL ALL 00000005			
586911.59000	4160859.89000	0.00000	15.84	15.84
0.00	ANNUAL ALL 00000005			
586931.59000	4160859.89000	0.00000	15.75	15.75
0.00	ANNUAL ALL 00000005			
586951.59000	4160859.89000	0.00000	15.83	15.83
0.00	ANNUAL ALL 00000005			
586971.59000	4160859.89000	0.00000	15.96	15.96
0.00	ANNUAL ALL 00000005			
586991.59000	4160859.89000	0.00000	13.76	16.23
0.00	ANNUAL ALL 00000005			
587011.59000	4160859.89000	0.00000	15.63	15.63
0.00	ANNUAL ALL 00000005			
587031.59000	4160859.89000	0.00000	15.76	15.76
0.00	ANNUAL ALL 00000005			
587051.59000	4160859.89000	0.00000	15.64	15.64
0.00	ANNUAL ALL 00000005			
586831.59000	4160879.89000	0.00000	16.09	16.09
0.00	ANNUAL ALL 00000005			
586851.59000	4160879.89000	0.00000	16.01	16.01
0.00	ANNUAL ALL 00000005			
586871.59000	4160879.89000	0.00000	16.01	16.01
0.00	ANNUAL ALL 00000005			
586891.59000	4160879.89000	0.00000	15.90	15.90
0.00	ANNUAL ALL 00000005			
586911.59000	4160879.89000	0.00000	15.60	15.60
0.00	ANNUAL ALL 00000005			
586931.59000	4160879.89000	0.00000	15.63	15.63
0.00	ANNUAL ALL 00000005			
586951.59000	4160879.89000	0.00000	15.87	15.87
0.00	ANNUAL ALL 00000005			
586971.59000	4160879.89000	0.00000	16.19	16.19
0.00	ANNUAL ALL 00000005			
586991.59000	4160879.89000	0.00000	13.78	16.23
0.00	ANNUAL ALL 00000005			
587011.59000	4160879.89000	0.00000	15.47	15.47
0.00	ANNUAL ALL 00000005			
587031.59000	4160879.89000	0.00000	15.63	15.63
0.00	ANNUAL ALL 00000005			
587051.59000	4160879.89000	0.00000	15.67	15.67
0.00	ANNUAL ALL 00000005			
586811.59000	4160899.89000	0.00000	16.55	16.55
0.00	ANNUAL ALL 00000005			
586831.59000	4160899.89000	0.00000	16.27	16.27
0.00	ANNUAL ALL 00000005			

586851.59000	4160899.89000	0.00000	16.12	16.12
0.00	ANNUAL ALL 00000005			
586871.59000	4160899.89000	0.00000	15.84	15.84
0.00	ANNUAL ALL 00000005			
586891.59000	4160899.89000	0.00000	15.43	15.43
0.00	ANNUAL ALL 00000005			
586911.59000	4160899.89000	0.00000	15.50	15.50
0.00	ANNUAL ALL 00000005			
586931.59000	4160899.89000	0.00000	15.73	15.73
0.00	ANNUAL ALL 00000005			
586951.59000	4160899.89000	0.00000	15.78	15.78
0.00	ANNUAL ALL 00000005			
586971.59000	4160899.89000	0.00000	15.93	15.93
0.00	ANNUAL ALL 00000005			
586991.59000	4160899.89000	0.00000	14.49	16.16
0.00	ANNUAL ALL 00000005			
587011.59000	4160899.89000	0.00000	15.43	15.43
0.00	ANNUAL ALL 00000005			
587031.59000	4160899.89000	0.00000	15.54	15.54
0.00	ANNUAL ALL 00000005			
587051.59000	4160899.89000	0.00000	15.70	15.70
0.00	ANNUAL ALL 00000005			
586791.59000	4160919.89000	0.00000	16.61	16.61
0.00	ANNUAL ALL 00000005			
586811.59000	4160919.89000	0.00000	16.59	16.59
0.00	ANNUAL ALL 00000005			
586831.59000	4160919.89000	0.00000	16.21	16.21
0.00	ANNUAL ALL 00000005			
586851.59000	4160919.89000	0.00000	15.79	15.79
0.00	ANNUAL ALL 00000005			
586871.59000	4160919.89000	0.00000	15.32	15.32
0.00	ANNUAL ALL 00000005			
586891.59000	4160919.89000	0.00000	15.31	15.31
0.00	ANNUAL ALL 00000005			
586911.59000	4160919.89000	0.00000	16.02	16.02
0.00	ANNUAL ALL 00000005			
586931.59000	4160919.89000	0.00000	15.97	15.97
0.00	ANNUAL ALL 00000005			
586951.59000	4160919.89000	0.00000	15.44	15.44
0.00	ANNUAL ALL 00000005			
586971.59000	4160919.89000	0.00000	15.90	15.90
0.00	ANNUAL ALL 00000005			
586991.59000	4160919.89000	0.00000	16.01	16.01
0.00	ANNUAL ALL 00000005			
587011.59000	4160919.89000	0.00000	15.22	15.45
0.00	ANNUAL ALL 00000005			
587031.59000	4160919.89000	0.00000	15.66	15.66
0.00	ANNUAL ALL 00000005			
587051.59000	4160919.89000	0.00000	15.76	15.76
0.00	ANNUAL ALL 00000005			
586771.59000	4160939.89000	0.00000	16.33	16.33
0.00	ANNUAL ALL 00000005			

586791.59000	4160939.89000	0.00000	16.45	16.45
0.00	ANNUAL ALL 00000005			
586811.59000	4160939.89000	0.00000	16.25	16.25
0.00	ANNUAL ALL 00000005			
586831.59000	4160939.89000	0.00000	15.77	15.77
0.00	ANNUAL ALL 00000005			
586851.59000	4160939.89000	0.00000	15.21	15.21
0.00	ANNUAL ALL 00000005			
586871.59000	4160939.89000	0.00000	15.20	15.20
0.00	ANNUAL ALL 00000005			
586891.59000	4160939.89000	0.00000	15.50	15.50
0.00	ANNUAL ALL 00000005			
586911.59000	4160939.89000	0.00000	16.22	16.22
0.00	ANNUAL ALL 00000005			
586931.59000	4160939.89000	0.00000	15.36	15.36
0.00	ANNUAL ALL 00000005			
586951.59000	4160939.89000	0.00000	15.39	15.39
0.00	ANNUAL ALL 00000005			
586971.59000	4160939.89000	0.00000	16.16	16.16
0.00	ANNUAL ALL 00000005			
586991.59000	4160939.89000	0.00000	16.20	16.20
0.00	ANNUAL ALL 00000005			
587011.59000	4160939.89000	0.00000	15.19	15.19
0.00	ANNUAL ALL 00000005			
587031.59000	4160939.89000	0.00000	15.71	15.71
0.00	ANNUAL ALL 00000005			
587051.59000	4160939.89000	0.00000	15.78	15.78
0.00	ANNUAL ALL 00000005			
586731.59000	4160959.89000	0.00000	15.93	15.93
0.00	ANNUAL ALL 00000005			
586751.59000	4160959.89000	0.00000	16.48	16.48
0.00	ANNUAL ALL 00000005			
586771.59000	4160959.89000	0.00000	16.38	16.38
0.00	ANNUAL ALL 00000005			
586791.59000	4160959.89000	0.00000	16.37	16.37
0.00	ANNUAL ALL 00000005			
586811.59000	4160959.89000	0.00000	15.76	15.76
0.00	ANNUAL ALL 00000005			
586831.59000	4160959.89000	0.00000	15.22	15.22
0.00	ANNUAL ALL 00000005			
586851.59000	4160959.89000	0.00000	15.26	15.26
0.00	ANNUAL ALL 00000005			
586871.59000	4160959.89000	0.00000	15.91	15.91
0.00	ANNUAL ALL 00000005			
586891.59000	4160959.89000	0.00000	15.85	15.85
0.00	ANNUAL ALL 00000005			
586911.59000	4160959.89000	0.00000	16.25	16.25
0.00	ANNUAL ALL 00000005			
586931.59000	4160959.89000	0.00000	16.59	16.59
0.00	ANNUAL ALL 00000005			
586951.59000	4160959.89000	0.00000	16.28	16.28
0.00	ANNUAL ALL 00000005			



586971.59000	4160959.89000	0.00000	16.17	16.17
0.00	ANNUAL ALL 00000005			
586991.59000	4160959.89000	0.00000	16.03	16.03
0.00	ANNUAL ALL 00000005			
587011.59000	4160959.89000	0.00000	16.22	16.22
0.00	ANNUAL ALL 00000005			
587031.59000	4160959.89000	0.00000	16.19	16.19
0.00	ANNUAL ALL 00000005			
586731.59000	4160979.89000	0.00000	16.63	16.63
0.00	ANNUAL ALL 00000005			
586751.59000	4160979.89000	0.00000	16.29	16.29
0.00	ANNUAL ALL 00000005			
586771.59000	4160979.89000	0.00000	16.38	16.38
0.00	ANNUAL ALL 00000005			
586791.59000	4160979.89000	0.00000	15.69	15.69
0.00	ANNUAL ALL 00000005			
586811.59000	4160979.89000	0.00000	15.38	15.38
0.00	ANNUAL ALL 00000005			
586831.59000	4160979.89000	0.00000	15.35	15.35
0.00	ANNUAL ALL 00000005			
586851.59000	4160979.89000	0.00000	15.91	15.91
0.00	ANNUAL ALL 00000005			
586871.59000	4160979.89000	0.00000	16.01	16.01
0.00	ANNUAL ALL 00000005			
586891.59000	4160979.89000	0.00000	16.55	16.55
0.00	ANNUAL ALL 00000005			
586911.59000	4160979.89000	0.00000	16.84	16.84
0.00	ANNUAL ALL 00000005			
586931.59000	4160979.89000	0.00000	16.73	16.73
0.00	ANNUAL ALL 00000005			
586951.59000	4160979.89000	0.00000	16.64	16.64
0.00	ANNUAL ALL 00000005			
586971.59000	4160979.89000	0.00000	16.03	16.03
0.00	ANNUAL ALL 00000005			
586991.59000	4160979.89000	0.00000	16.53	16.53
0.00	ANNUAL ALL 00000005			
587011.59000	4160979.89000	0.00000	16.64	16.64
0.00	ANNUAL ALL 00000005			
586751.59000	4160999.89000	0.00000	16.36	16.36
0.00	ANNUAL ALL 00000005			
586771.59000	4160999.89000	0.00000	15.80	15.80
0.00	ANNUAL ALL 00000005			
586791.59000	4160999.89000	0.00000	15.52	15.52
0.00	ANNUAL ALL 00000005			
586811.59000	4160999.89000	0.00000	15.57	15.57
0.00	ANNUAL ALL 00000005			
586831.59000	4160999.89000	0.00000	15.84	15.84
0.00	ANNUAL ALL 00000005			
586851.59000	4160999.89000	0.00000	16.06	16.06
0.00	ANNUAL ALL 00000005			
586871.59000	4160999.89000	0.00000	16.28	16.28
0.00	ANNUAL ALL 00000005			

586891.59000	4160999.89000	0.00000	16.49	16.49
0.00	ANNUAL ALL 00000005			
586911.59000	4160999.89000	0.00000	16.88	16.88
0.00	ANNUAL ALL 00000005			
586931.59000	4160999.89000	0.00000	16.87	16.87
0.00	ANNUAL ALL 00000005			
586951.59000	4160999.89000	0.00000	16.64	16.64
0.00	ANNUAL ALL 00000005			
586971.59000	4160999.89000	0.00000	16.62	16.62
0.00	ANNUAL ALL 00000005			
586991.59000	4160999.89000	0.00000	16.80	16.80
0.00	ANNUAL ALL 00000005			
586751.59000	4161019.89000	0.00000	15.74	15.74
0.00	ANNUAL ALL 00000005			
586771.59000	4161019.89000	0.00000	15.64	15.64
0.00	ANNUAL ALL 00000005			
586791.59000	4161019.89000	0.00000	15.73	15.73
0.00	ANNUAL ALL 00000005			
586811.59000	4161019.89000	0.00000	16.28	16.28
0.00	ANNUAL ALL 00000005			
586831.59000	4161019.89000	0.00000	15.97	15.97
0.00	ANNUAL ALL 00000005			
586851.59000	4161019.89000	0.00000	16.16	16.16
0.00	ANNUAL ALL 00000005			
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0.00	ANNUAL ALL 00000005			
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0.00	ANNUAL ALL 00000005			
586911.59000	4161019.89000	0.00000	16.90	16.90
0.00	ANNUAL ALL 00000005			
586931.59000	4161019.89000	0.00000	16.90	16.90
0.00	ANNUAL ALL 00000005			
586951.59000	4161019.89000	0.00000	16.90	16.90
0.00	ANNUAL ALL 00000005			
586971.59000	4161019.89000	0.00000	17.01	17.01
0.00	ANNUAL ALL 00000005			
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0.00	ANNUAL ALL 00000005			
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0.00	ANNUAL ALL 00000005			
586811.59000	4161039.89000	0.00000	16.35	16.35
0.00	ANNUAL ALL 00000005			
586831.59000	4161039.89000	0.00000	16.51	16.51
0.00	ANNUAL ALL 00000005			
586851.59000	4161039.89000	0.00000	16.53	16.53
0.00	ANNUAL ALL 00000005			
586871.59000	4161039.89000	0.00000	16.78	16.78
0.00	ANNUAL ALL 00000005			
586891.59000	4161039.89000	0.00000	16.97	16.97
0.00	ANNUAL ALL 00000005			
586911.59000	4161039.89000	0.00000	17.07	17.07
0.00	ANNUAL ALL 00000005			

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0.00	ANNUAL ALL 00000005			
586951.59000	4161039.89000	0.00000	17.07	17.07
0.00	ANNUAL ALL 00000005			
586791.59000	4161059.89000	0.00000	16.66	16.66
0.00	ANNUAL ALL 00000005			
586811.59000	4161059.89000	0.00000	16.52	16.52
0.00	ANNUAL ALL 00000005			
586831.59000	4161059.89000	0.00000	16.77	16.77
0.00	ANNUAL ALL 00000005			
586851.59000	4161059.89000	0.00000	16.74	16.74
0.00	ANNUAL ALL 00000005			
586871.59000	4161059.89000	0.00000	16.99	16.99
0.00	ANNUAL ALL 00000005			
586891.59000	4161059.89000	0.00000	17.06	17.06
0.00	ANNUAL ALL 00000005			
586911.59000	4161059.89000	0.00000	17.15	17.15
0.00	ANNUAL ALL 00000005			
586931.59000	4161059.89000	0.00000	17.22	17.22
0.00	ANNUAL ALL 00000005			
586811.59000	4161079.89000	0.00000	16.60	16.60
0.00	ANNUAL ALL 00000005			
586831.59000	4161079.89000	0.00000	16.71	16.71
0.00	ANNUAL ALL 00000005			
586851.59000	4161079.89000	0.00000	16.89	16.89
0.00	ANNUAL ALL 00000005			
586871.59000	4161079.89000	0.00000	17.01	17.01
0.00	ANNUAL ALL 00000005			
586891.59000	4161079.89000	0.00000	17.21	17.21
0.00	ANNUAL ALL 00000005			
586831.59000	4161099.89000	0.00000	16.93	16.93
0.00	ANNUAL ALL 00000005			
586851.59000	4161099.89000	0.00000	17.03	17.03
0.00	ANNUAL ALL 00000005			
586871.59000	4161099.89000	0.00000	17.25	17.25
0.00	ANNUAL ALL 00000005			
586851.59000	4161119.89000	0.00000	17.35	17.35
0.00	ANNUAL ALL 00000005			
586891.59000	4161139.89000	0.00000	17.85	181.37
0.00	ANNUAL ALL 00000005			
586891.59000	4161159.89000	0.00000	17.98	181.37
0.00	ANNUAL ALL 00000005			
586911.59000	4161159.89000	0.00000	17.96	181.37
0.00	ANNUAL ALL 00000005			
586871.59000	4161179.89000	0.00000	18.17	181.37
0.00	ANNUAL ALL 00000005			
586891.59000	4161179.89000	0.00000	18.09	181.37
0.00	ANNUAL ALL 00000005			
586911.59000	4161179.89000	0.00000	18.13	181.37
0.00	ANNUAL ALL 00000005			
586931.59000	4161179.89000	0.00000	18.08	181.37
0.00	ANNUAL ALL 00000005			

586851.59000	4161199.89000	0.00000	18.27	181.37
0.00	ANNUAL ALL 00000005			
586871.59000	4161199.89000	0.00000	18.23	181.37
0.00	ANNUAL ALL 00000005			
586891.59000	4161199.89000	0.00000	18.20	181.37
0.00	ANNUAL ALL 00000005			
586911.59000	4161199.89000	0.00000	18.23	181.37
0.00	ANNUAL ALL 00000005			
586931.59000	4161199.89000	0.00000	18.29	181.37
0.00	ANNUAL ALL 00000005			
586831.59000	4161219.89000	0.00000	18.44	181.37
0.00	ANNUAL ALL 00000005			
586851.59000	4161219.89000	0.00000	18.39	181.37
0.00	ANNUAL ALL 00000005			
586871.59000	4161219.89000	0.00000	18.38	181.37
0.00	ANNUAL ALL 00000005			
586891.59000	4161219.89000	0.00000	18.38	181.37
0.00	ANNUAL ALL 00000005			
586911.59000	4161219.89000	0.00000	18.39	181.37
0.00	ANNUAL ALL 00000005			
586931.59000	4161219.89000	0.00000	18.41	181.37
0.00	ANNUAL ALL 00000005			
586951.59000	4161219.89000	0.00000	18.47	181.37
0.00	ANNUAL ALL 00000005			
586811.59000	4161239.89000	0.00000	18.61	181.37
0.00	ANNUAL ALL 00000005			
586831.59000	4161239.89000	0.00000	18.57	181.37
0.00	ANNUAL ALL 00000005			
586851.59000	4161239.89000	0.00000	18.55	181.37
0.00	ANNUAL ALL 00000005			
586871.59000	4161239.89000	0.00000	18.56	181.37
0.00	ANNUAL ALL 00000005			
586891.59000	4161239.89000	0.00000	18.54	181.37
0.00	ANNUAL ALL 00000005			
586911.59000	4161239.89000	0.00000	18.57	181.37
0.00	ANNUAL ALL 00000005			
586931.59000	4161239.89000	0.00000	18.54	181.37
0.00	ANNUAL ALL 00000005			
586951.59000	4161239.89000	0.00001	18.55	181.37
0.00	ANNUAL ALL 00000005			
586971.59000	4161239.89000	0.00001	18.64	192.17
0.00	ANNUAL ALL 00000005			
**	CONCUNIT ug/m^3			
**	DEPUNIT g/m^2			
**	CONCUNIT ug/m^3			
**	DEPUNIT g/m^2			

# Technical Modeling Considerations for Criteria Pollutants and Human Health Effects

In their interim guidance addressing *Sierra Club v. County of Fresno* (6 Cal. 5<sup>th</sup> 502) (Friant Ranch), SMAQMD (2019) recommends lead agencies compare the air quality models used in CEQA analyses to those models designed to evaluate regional attainment with ambient air quality standards and associated human health consequences. This section describes the three models used to estimate criteria pollutant emissions generated by construction and operation of the project and evaluates their ability to assess specific health impacts of the project. This section also analyzes whether models and tools that have been developed to quantify ambient pollutant concentrations could be used to reasonably correlate project-level emissions to specific health consequences.

## Review of Project Analysis Models

Criteria pollutant emissions generated by construction and operation of the project were estimated using the California Emissions Estimator Model (CalEEMod), SMAQMD's Roadway Construction Emissions Model (RCEM), and the California Air Resources Board's (CARB) EMISSIONS FACTOR (EMFAC) model. Each of the following sections note whether the given model is suitable for quantify human health consequences or changes in nonattainment days.

### California Emissions Estimator Model

CalEEMod is a statewide computer model quantifies construction and operational criteria pollutant and greenhouse gas (GHG) emissions from land use development projects. The model evaluates construction emissions associated with six phases—demolition, site preparation, grading, building construction, architectural coatings, and paving. Emission sources considered by the model include offroad construction equipment, onroad mobile vehicles, fugitive dust from land disturbance, and volatile organic compounds from architectural coatings and paving activities.

CalEEMod quantifies project emissions based on user-defined inputs for project location, operational year, land use type (e.g., commercial), climate zone, and size. Based on these minimum data inputs, users can estimate construction emissions based model generated default assumptions for construction phasing, construction equipment inventory and activities, and trip lengths. Default values included in the model were provided by California air districts and account for local conditions and regulations. Where appropriate, CalEEMod combines local data with regional and statewide values to ensure enough information is available to quantify emissions. Users can override default values with project-specific information. In addition, users can implement mitigation measures and strategies to reduce construction-related exhaust and fugitive dust emissions.

Based on the user inputs and emission factors from the CARB's EMFAC and OFFROAD models, CalEEMod calculates both daily maximum (pounds per day) and annual average (tons per year) emissions. These emissions can be compared to air district mass emission thresholds, such as those adopted by EDCAQMD. CalEEMod does not quantify concentrations of the various air pollutants (in

terms of micrograms per cubic meter or parts per million), nor does it estimate secondary pollutants (such as ozone and PM<sub>2.5</sub>) or potential human health effects from exposure to criteria pollutants. Accordingly, CalEEMod cannot be used to evaluate changes in the number of regional nonattainment days or correlate project-level emissions to specific health consequences.

## **Road Construction Emissions Model**

SMAQMD's RCEM is a public-domain spreadsheet model formatted as a series of individual worksheets. The model is specifically designed to evaluate construction criteria pollutant and GHG emissions from linear projects (e.g., water infrastructure, roads). Four generic construction phases are considered by the model: 1) grubbing/land clearing, 2) grading/excavation, 3) drainage/utilities/subgrade, and 4) paving. Within these phases, the model estimates construction emissions for load hauling (onroad heavy-duty vehicle trips), worker commutes, construction site fugitive dust, and offroad construction vehicles. Although exhaust emissions are estimated for each activity, fugitive dust estimates are currently limited to major dust-generating activities, which include grubbing/land clearing and grading/excavation.

The RCEM was designed to enable users to estimate emissions using a minimum amount of project-specific information, such as construction start year and duration, project type, and the project length and area. This was done because specific data to quantify emissions from transportation projects is often unavailable when the environmental document is being prepared. To help facilitate the quantification of construction emissions based on valid assumptions, the RCEM contains default data based on surveys of construction equipment, schedules, and other construction data from a selection of construction projects in Sacramento County, as well as construction surveys conducted for CalEEMod and a technical evaluation completed by the University of California, Davis. Emission factors used by the model are from the CARB's EMFAC and OFFROAD models.

Like CalEEMod, RCEM calculates both daily maximum (pounds per day) and annual average (tons per year) emissions. RCEM does not quantify concentrations of the various air pollutants (in terms of micrograms per cubic meter or parts per million), nor does it estimate secondary pollutants (such as ozone and PM<sub>2.5</sub>) or potential human health effects from exposure to criteria pollutants. Accordingly, RCEM cannot be used to evaluate changes in the number of regional nonattainment days or correlate project-level emissions to specific health consequences.

## **EMissions FACTor Model**

CARB developed the EMFAC model to facilitate preparation of statewide and regional mobile source emissions inventories. The model generates criteria pollutant and GHG emissions rates that can be multiplied by vehicle activity data from all motor vehicles, including passenger cars to heavy-duty trucks, operating on highways, freeways, and local roads in California. The resulting emissions estimates are mass emission quantities that can be expressed in terms of pounds per day and tons per year (or other similar unit rates). Like CalEEMod and RCEM, EMFAC does not assess pollutant dispersion or quantify concentrations or potential health effects. Accordingly, EMFAC cannot be used to evaluate changes in the number of regional nonattainment days or correlate project-level emissions to specific health consequences.

## Review of Photochemical and Human Health Models

Several models and tools capable of translating mass emissions of criteria pollutants to ambient pollutant concentrations and various health endpoints have been developed. Table 1 summarizes key tools, identifies the analyzed pollutants, describes their intended application and resolution, and analyzes whether they could be used to reasonably correlate project-level emissions to specific health consequences.

As shown in Table 1, almost all tools were designed to be used at the national, state, regional, and/or city-levels. This is because criteria pollutants emitted by a specific source often do not deposit immediately adjacent to that source. Pollutants can be transported by prevailing winds or transformed through chemical reactions and physical interactions with other pollutants in the atmosphere. Because some pollutants can be transported over long distances, recorded violations of the ambient air quality standards at a specific monitoring station and resultant health effects experienced by the local population may be the result of faraway emission sources (some of which may not even be located within the same air basin). For this reason, attaining the ambient air quality standards and protecting human health from exposure to criteria pollutants requires a regional, and sometimes multiregional strategy that considers the combined effect of all emission-generating sources that influence air quality within an air basin.

The models and tools that have been developed to assess attainment of the ambient air quality standards and human health effects are therefore regional in nature and are not well suited to analyze small or localized changes in pollutant concentrations associated with individual projects. Said another way, “it remains impossible, using today’s models, to correlate that increase in concentration to a specific health impact [because] such models are designed to determine regional, population-wide health impacts, and simply are not accurate when applied at the local level” (San Joaquin Valley Air Pollution Control District 2015). As of the writing of this analysis “neither the Sac Metro Air District nor any other air district currently have methodologies that would provide Lead Agencies and CEQA practitioners with a consistent, reliable, and meaningful analysis to correlate specific health impacts that may result from a proposed project’s mass emissions” (Sacramento Metropolitan Air Quality Management District 2019).

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**Table 1. Analysis of Photochemical and Human Health Models**

Tool	Created by	Description	Resolution	Pollutants Analyzed	Project-Level CEQA Applicability
AirCounts	Abt Assoc.	Online tool that helps large and medium-sized cities quickly estimate the health benefits of PM2.5 emission reductions and economic value of those benefits. The tool estimates the number of deaths (mortality) avoided and economic value related to user-specified regional, annual PM2.5 emissions reduction. The modeling year is 2010; avoided deaths are expected to occur over a 20-year period and their present value is shown in 2010 US dollars at a 3% discount rate.	City-level	Primary PM2.5	This tool is only illustrative, as it is limited to certain cities and does not target specific sectors. Given that it was designed as a screening-level tool, is not sector specific, and includes limited California data, the tool is <b>not recommended</b> for project-level CEQA analysis.
AP2 (formerly Air Pollution Emission Experiments and Policy [APEEP])	Mueller and Mendelsohn, 2006	AP2 is an integrated assessment model developed to assess marginal damage impacts from emissions at the national scale but can be applied at the county-level. The model connects emissions to monetary damages through six modules: emissions (per EPA's national inventory), air quality modeling, concentrations, exposures, physical effects, and valuation. Damages are presented on a dollar-per-ton basis. Model extends damage assessment beyond human health, and includes assessment on reduced crop and timber yields, reductions in visibility, enhanced depreciation of man-made materials and damages due to lost recreation services.	National or county-level	SO <sub>2</sub> , ROG, NO <sub>x</sub> , ozone, PM2.5, PM10	The model operates at the national scale but may be applied at the county-level (although it is not clear how this adjustment should be made). The tool is also not commercially available. Accordingly, the tool is <b>not recommended</b> for project-level CEQA analysis.
Methodology for Estimating Premature Deaths Associated with Long-Term Exposure to Fine Airborne Particulate Matter in California	CARB	The staff report identifies a relative risk of premature death associated with PM2.5 exposure based on a review of all relevant scientific literature, and a new relative risk factor was developed. This new factor is a 10% increase in risk of premature death per 10 µg/m <sup>3</sup> increase in exposure to PM2.5 concentrations (uncertainty interval: 3% to 20%)	National		The primary author of the CARB staff report notes that the analysis method is not suited for small projects and may yield unreliable results due to various uncertainties. Accordingly, the tool is <b>not recommended</b> for project-level CEQA analysis.
Co-Benefits Risk Assessment (COBRA)	US EPA	Preliminary screening tool that contains baseline emission estimates of a variety of air pollutants for a single year (2017). COOBRA is targeted to state and local governments as a screening assessment for clean energy policies. Users specify changes to the baseline emission estimates. COBRA then uses "canned" source-receptor matrix model to estimate PM changes and resulting health outcomes and monetized values. The results can be mapped to visually represent air quality, human health, and health-related economic benefits. Analysis can be performed across the 14 major emissions categories included in the EPA's National Emissions Inventory.  Note that COBRA is based on EPA's BenMAP-CE (discussed in a separate entry).	National, regional, state, or county-levels	PM2.5, SO <sub>2</sub> , NO <sub>x</sub> , NH <sub>3</sub> , and ROG	COBRA is a preliminary screening tool only and cannot be used at sub-county resolution. It also does not account for secondary emission changes resulting from market responses. Accordingly, the tool is <b>not recommended</b> for project-level CEQA analysis.
Environmental Benefits and Mapping Program-Community Edition (BenMAP-CE)	US EPA	BenMAP is EPA's detailed model for estimating the health impacts from air pollution. It relies on input concentrations and applies concentration-response (C-R) health impact functions, which relate a change in the concentration of a pollutant with a change in the incidence of a health endpoint, including premature mortality, heart attacks, chronic respiratory illnesses, asthma exacerbation and other adverse health effects. Detailed inputs are required for air quality changes (concentrations from AERMOD), population, baseline incidence rates, and effect estimates.	National, County, City, and sub-regional levels	Ozone, PM, NO <sub>2</sub> , SO <sub>2</sub> , CO	The smallest default analysis resolution for BenMAP-CE is 144 square kilometers (equivalent to approximately 56 square miles or 36,000 acres).  This tool could be used to derive average health incidence/ton estimates that can be used for illustrative purposes only for most projects with proper disclosure of the inherent inaccuracies involved in averaging. It is <b>not recommended</b> for individual modeling of smaller projects, however.  The tool may be appropriate for modeling certain large-scale General Plan-level analyses.

Tool	Created by	Description	Resolution	Pollutants Analyzed	Project-Level CEQA Applicability
Fast Scenario Screening Tool (TM5-FASST)	Joint Research Centre (Italy)	Tool allows users to evaluate how air pollutant emissions affect large scale pollutant concentrations and their impact on human health (mortality and years of life lost) and crop yield from national to regional air quality policies, such as climate policies. The tool is web-based and does not require coding or modelling. Users must gain access through publishers.	Global and national-levels	PM2.5, ozone, NOx, NH <sub>3</sub> , CO, ROG, EC, CH <sub>4</sub> , SO <sub>2</sub>	This tool is applicable at national to global scales. Accordingly, the tool is <b>not recommended</b> for project-level CEQA analysis.
Long-range Energy Alternatives Planning System-- Integrated Benefits Calculator (LEAP-IBC)	Climate and Clean Air Coalition (CCAC)	Allows users to rapidly estimate the impacts of reducing emissions on health, climate, and agriculture. Tool uses sensitivity coefficients that link gridded emissions of air pollutants and precursors to health, climate and agricultural impacts at a national level. The sensitivity coefficients are generated by a chemical transport model, so air quality modeling not necessary. Tool is currently Excel-based and is available through the developers only. A web-based interface is currently under development.	National-level	PM2.5, ozone, NO <sub>2</sub>	This tool is applicable at national scale. Accordingly, the tool is <b>not recommended</b> for project-level CEQA analysis.
Multi-Pollutant Evaluation Method (MPEM)	BAAQMD	Estimates the impacts of control measures on pollutant concentration, population exposures, and health outcomes for criteria, toxic, and GHG pollutants. Monetizes the value of total health benefits from reductions in PM2.5, ozone, and certain carcinogens, and the social value of GHG reductions. MPEM was designed for development of a Clean Air Plan for the San Francisco Bay Area. The inputs are specific to the SF region and are not appropriate for projects outside BAAQMD.	Regional level in the SFBAAB	Ozone, PM, air toxics, GHG	<p>This tool is designed to support the BAAQMD in regional planning and emissions analysis within the SFBAAB. The model applies changes in pollutant concentrations over a four-square kilometer grid.</p> <p>This tool could be used to derive average health incidence/ton estimates that can be used for illustrative purposes only for most projects with proper disclosure of the inherent inaccuracies involved in averaging. It is <b>not recommended</b> for individual modeling of smaller projects, however.</p> <p>The tool may be appropriate for certain large-scale planning-level analyses in the SFBAAB (with permission of BAAQMD).</p>
Response Surface Model (RSM)-based Benefit-per-Ton Estimates	US EPA	Consists of tables reporting the monetized PM2.5-related health benefits from reducing PM2.5 precursors from certain source types nationally and for 9 US cities/regions. Applying these estimates simply involves multiplying the emissions reduction by the relevant benefit per-ton metric. The resulting value is the PM mortality risk estimate at a 3% discount rate.	National or regional (San Joaquin County only) levels	EC, SOx, VOC, NH <sub>3</sub> , NOx	While RSM includes regional values specific to San Joaquin County, the metrics only reflect the benefits of reductions in exposure to ambient PM alone and do not include the benefits of reductions in other pollutants. The values are also dated as new sector-based BPT values are more current. Accordingly, the tool is <b>not recommended</b> for project-level CEQA analysis (even in San Joaquin County).
Sector-based Benefit-per-Ton Estimates	US EPA	<p>Two specific sets of BPT estimates for 17 key source categories are available. Both are a reduced-form approach based on BenMAP modeling. The first are based on Fann et al. (2012) values and available from EPA's website. The second is based on updated modeling from Fann et al. (2017) and available in a Technical Support Document (TSD) from EPA. Applying these factors involves multiplying the emissions reduction (in tons) by the relevant benefit (economic value) or incidence (rates of mortality and morbidity) per-ton metric. The resulting value is the economics, mortality, and morbidity of direct and indirect PM2.5 emissions.</p> <p>All values are based on a national-scale study. Local values are preferred, but not available from any existing reduced form model and use of reduced form estimates for another city is unlikely to provide a better-than-national value. Use of the current values from EPA's 2018 TSD represent the most current estimate of monetized or incidence risk. Values from Lepeule et al. (2012) represent the most current estimate of mortality.</p>	National-scale	PM2.5, SO2, NOx	<p>Due to the complex non-linear chemistry governing ozone formation, EPA was not able to derive ozone or secondary PM BPT values.</p> <p>The BPT estimates provide a rough order-of-magnitude analysis of health consequences from directly-emitted PM and precursors to PM (with no secondary formation). However, the multipliers do not account for project-specific characteristics, receptor locations, or local dispersion characteristics. The resultant health effects are therefore reflective of national averages and may not be exact when applied to the project-level. Nonetheless, the estimates can be used to present an informational and scaled health risk analysis of directly-emitted PM and precursors to PM (with no secondary formation).</p>

**Appendix 4.2-1  
Tree Inventory**



# **TREE INVENTORY FOR THE STATION EAST RESIDENTIAL/MIXED USE PROJECT**

**CITY OF UNION CITY, CALIFORNIA**

**PREPARED FOR:**

Integral Communities  
500 La Gonda Way, Suite 102  
Danville, California 94526

**PREPARED BY:**

ICF  
201 Mission Street, Suite 1500  
San Francisco, California 94105

**MARCH 2020**



ICF. 2020. *Tree Inventory for the Station East Residential/Mixed Use Project*. March.  
(ICF 00011.19) San Francisco, CA. Prepared for Integral Communities, Danville,  
California.

## Executive Summary

The Station East Residential/Mixed Use Project (project) is an infill project involving the redevelopment of an approximately 26.5-acre site in the City of Union City, California (Figure 1). At the request of Integral Communities, ICF prepared a tree inventory for the project site, which is bound by Decoto Road to the north, 7th Street to the east, Bradford Way to the south, and the Union Pacific Railroad Niles Subdivision rail line to the west.

A tree inventory was performed at the project site on April 15, 2019. The inventory documented a total of 68 trees. Descriptions of the tree species are provided in the *Results* section, and a map showing the location of each tree is provided in Figure 2. The size of the trees (i.e., the circumference of the trees measured at 3 feet above the ground) ranged from 3 to 119 inches. A total of 20 tree species were identified, including three tree species that are native to California. Forty-eight trees were healthy, 15 trees were in moderate health, and five trees were in poor health. Forty-seven trees that are protected under the Union City Municipal Code were identified within the project site.

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# Introduction

Integral Communities, the project applicant, is proposing the Station East Residential/Mixed Use Project (project), an infill project involving the redevelopment of an approximately 26.5-acre site (project site) in the City of Union City, Alameda County, California. The project site is bound by Decoto Road to the north, 7th Street to the east, Bradford Way to the south, and the Union Pacific Railroad Niles Subdivision rail line to the west. The location of the project site is shown in Figure 1 at the end of this tree inventory. The project site (Assessor's Parcel Numbers 87-21-5-2; 87-21-13-1; 87-21-13-2; 87-23-12; 87-23-10; and Parcel 2A of Lot Line Adjustment 03-2019 [including 87-21-4-2 (portion), 87-23-13, and 87-23-14 (portion)]<sup>1</sup>) is currently occupied by existing and vacant industrial uses (totaling approximately 86,500 square feet [sf]), surface parking lots, and disked fields. The project proposes the demolition of the existing buildings and surface parking lots, and the development of up to 30,770 sf of commercial space and up to 964 new residential units (apartments, condominiums, and town-house style condominiums), for a total development of approximately 1.8 million sf. The proposed project would require the removal of all existing trees within the project site due to conflicts with the design of the project and would plant approximately 709 trees within the project site.

ICF prepared this tree inventory for the project site at the request of Integral Communities. It includes a discussion of applicable regulatory thresholds and documents the number of trees, the species, and the size of each tree on the site and notes whether or not each tree is considered a protected tree. Finally, the tree inventory includes recommended mitigation for tree removal, replacement, and protection.

## Regulatory Thresholds

### Union City Municipal Code

Issues regarding the provision of trees in the community are addressed in Union City Municipal Code Chapter 12.16, Trees, Shrubs, and Plants.<sup>2</sup> Union City Municipal Code Chapter 12.16.170, Tree Conservation, indicates that tree preservation is necessary for the health and welfare of the citizens of the city. Furthermore, trees preserve scenic beauty, prevent the erosion of topsoil, protect against flood hazards and landslides, counteract pollutants in the air, maintain the climatic balance, decrease wind velocities, and contribute greatly to the value of land in the city. It is the intent of the City of Union City to limit the removal of significant trees within the city in order to retain as many trees as possible consistent with the purpose of the municipal code sections and the reasonable economic enjoyment of private property.

Trees that are protected by Union City Municipal Code Chapter 12.16.170 are as follows:

- 
- <sup>1</sup> Please note that the applicant recently completed a lot line adjustment to modify some parcels to better align with the project boundary. These are denoted with the term "portion." The Assessor's Office has yet to assign new assessor parcel numbers for these lots.
  - <sup>2</sup> City of Union City. n.d. *Union City Municipal Code*. Chapter 12.16, Trees, Shrubs and Plants. Available: [https://qcode.us/codes/unioncity/view.php?topic=12-12\\_16&frames=off](https://qcode.us/codes/unioncity/view.php?topic=12-12_16&frames=off). Accessed: March 28, 2019.

- a. All trees that have a trunk circumference of 35 inches or more or, in the case of multi-trunk trees, a total trunk circumference of 70 inches or more where such trees are located on residential property;
- b. All trees that have a trunk circumference of 12 inches or more when removal relates to any transaction for which zoning approval or subdivision approval is required;
- c. Any tree that existed at the time of zoning approval or subdivision approval that was the specific subject of such approval or otherwise covered by paragraph (b) of this subdivision;
- d. Any tree that was required to be planted by the terms of a zoning approval or subdivision approval;
- e. All trees that have a trunk circumference of 12 inches or more and are located on a vacant lot or undeveloped property; and
- f. All trees that have a trunk circumference of 12 inches or more and are located on developed commercial, office, or industrial property.

Tree circumference is measured 3 feet above the ground (Union City Municipal Code Chapter 12.16.170-B3). Union City Municipal Code Chapter 12.16.170-C states that it is unlawful for any person to trim or remove a tree that is covered by the section without a tree removal permit, with exceptions related to orchard trees, trees that are hazardous or dangerous to life or property, or orders from the Director of Public Works). As a condition for granting a permit, the deciding official or deciding body may require one or more replacement trees of a species and size designated by the Director of Public Works to be planted on public or private property. The person requesting the permit or the property owner may also be required to pay the cost of obtaining and planting the replacement trees.

## Methods

ICF performed a tree inventory at the project site on April 15, 2019. Two ICF biologists walked the extent of the site and inventoried all tree species with a circumference of 3 inches or more, as measured 3 feet above the ground.<sup>3</sup> The biologists noted the general appearance and health of all trees.

Tree health was evaluated using the following criteria:

- *Healthy* – A tree with virtually no signs of disease and good structure and form.
- *Moderate Health* – A tree with moderate signs of disease, some branch dieback, poor leaf color, structural defects, or other signs of disease that could be corrected.
- *Poor Health* – A tree with serious health issues, extensive dieback, loss of leaves, extensive structural defects, or other signs of disease that cannot be remedied.

In addition, a 2008 Trimble GeoExplorer Global Positioning System (GPS) unit with sub-meter accuracy was used to document the location of each tree.

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<sup>3</sup> Trees that were less than 3 inches in circumference (1 inch in diameter) were not measured; these immature trees, or saplings, were clearly under the threshold for protected trees, per the Union City Municipal Code.

# Results

The tree inventory documented a total of 68 trees (refer to Table 1 and Figure 2 at the end of this tree inventory). A total of 20 tree species were identified, ranging from 3 to 119 inches in circumference, as measured at 3 feet above the ground. Of the 20 tree species, three are native to California (i.e., arroyo willow, coast live oak, and valley oak). The species of one tree (#31) was unidentifiable due to the lack of reproductive parts; the Jepson Manual (Baldwin et al., 2012) was used to key the vegetative parts of the trees which indicated that the tree was not native. Forty-eight trees were healthy, 15 trees were in moderate health, and five trees were in poor health. Forty-seven trees that are protected under the Union City Municipal Code were identified within the project site. Photographs of some of the trees are included in Appendix A of this tree inventory.

**Table 1. Tree Inventory for the Project Site**

Tree ID	Common Name	Scientific Name	Health <sup>1</sup>	Circumference <sup>2</sup> (inches)	City-designated Protected Tree
1	Privet	<i>Ligustrum</i> sp.	Healthy	19, 19, 28	Yes
2	Cherry tree	<i>Prunus</i> sp.	Poor	9, 19	Yes
3	Silver dollar gum	<i>Eucalyptus polyanthemos</i>	Healthy	79	Yes
4	Silver dollar gum	<i>Eucalyptus polyanthemos</i>	Healthy	66	Yes
5	American sweetgum	<i>Liquidambar styraciflua</i>	Moderate	63	Yes
6	Peruvian pepper tree	<i>Schinus molle</i>	Moderate	31	Yes
7	Peruvian pepper tree	<i>Schinus molle</i>	Healthy	31	Yes
8	Juniper	<i>Juniperus</i> sp.	Poor	6, 6, 9	No
9	Peruvian pepper tree	<i>Schinus molle</i>	Moderate	25, 38	Yes
10	Peruvian pepper tree	<i>Schinus molle</i>	Poor	19, 19	Yes
11	Pittosporum	<i>Pittosporum</i> sp.	Healthy	29	Yes
12	Peruvian pepper tree	<i>Schinus molle</i>	Healthy	63	Yes
13	Coast live oak*	<i>Quercus agrifolia</i>	Healthy	13	Yes
14	Coast live oak*	<i>Quercus agrifolia</i>	Healthy	13	Yes
15	Coast live oak*	<i>Quercus agrifolia</i>	Healthy	3	No
16	Coast live oak*	<i>Quercus agrifolia</i>	Healthy	3	No
17	Strawberry tree	<i>Arbutus unedo</i>	Healthy	63	Yes
18	Coast live oak*	<i>Quercus agrifolia</i>	Healthy	6, 6, 6	No
19	Coast live oak*	<i>Quercus agrifolia</i>	Healthy	25	Yes
20	Coast live oak*	<i>Quercus agrifolia</i>	Healthy	88	Yes
21	Coast live oak*	<i>Quercus agrifolia</i>	Healthy	41	Yes
22	Coast live oak*	<i>Quercus agrifolia</i>	Healthy	44	Yes
23	Valley oak*	<i>Quercus lobata</i>	Healthy	25	Yes
24	Coast live oak*	<i>Quercus agrifolia</i>	Healthy	63	Yes
25	Peruvian pepper tree	<i>Schinus molle</i>	Healthy	63	Yes
26	Olive	<i>Olea europaea</i>	Moderate	9, 16, 16	Yes
27	Arroyo willow*	<i>Salix lasiolepis</i>	Poor	75, 79, 82	Yes

<b>Tree ID</b>	<b>Common Name</b>	<b>Scientific Name</b>	<b>Health<sup>1</sup></b>	<b>Circumference<sup>2</sup> (inches)</b>	<b>City-designated Protected Tree</b>
28	Arroyo willow*	<i>Salix lasiolepis</i>	Healthy	57	Yes
29	Peruvian pepper tree	<i>Schinus molle</i>	Healthy	82	Yes
30	Coast live oak*	<i>Quercus agrifolia</i>	Healthy	44	Yes
31	Unknown**	<i>Unknown</i>	Healthy	19, 22	Yes
32	Date palm	<i>Phoenix sp.</i>	Healthy	119	Yes
33	Coast live oak*	<i>Quercus agrifolia</i>	Moderate	63	Yes
34	Coast live oak*	<i>Quercus agrifolia</i>	Moderate	13, 13, 16, 16, 16	Yes
35	Arroyo willow*	<i>Salix lasiolepis</i>	Moderate	19, 22	Yes
36	Coast live oak*	<i>Quercus agrifolia</i>	Moderate	44, 44, 44	Yes
37	Coast live oak*	<i>Quercus agrifolia</i>	Healthy	3, 3, 3, 6, 6, 6	No
38	Almond	<i>Prunus dulcis</i>	Healthy	6, 9	No
39	Almond	<i>Prunus dulcis</i>	Healthy	31, 35	Yes
40	Almond	<i>Prunus dulcis</i>	Healthy	22, 25	Yes
41	Coast live oak*	<i>Quercus agrifolia</i>	Healthy	31	Yes
42	Coast live oak*	<i>Quercus agrifolia</i>	Healthy	28, 31	Yes
43	Olive	<i>Olea europaea</i>	Healthy	16, 16, 16, 16, 16, 16, 16	Yes
44	Olive	<i>Olea europaea</i>	Healthy	28, 31, 35, 38	Yes
45	Olive	<i>Olea europaea</i>	Moderate	13, 13	Yes
46	Privet	<i>Ligustrum sp.</i>	Healthy	9, 9, 9, 9, 9, 9	No
47	Olive	<i>Olea europaea</i>	Healthy	47, 47	Yes
48	Mexican fan palm	<i>Washingtonia robusta</i>	Healthy	31	Yes
49	English walnut	<i>Juglans regia</i>	Healthy	6	No
50	Cherry tree	<i>Prunus sp.</i>	Healthy	19, 22, 25	Yes
51	Cherry tree	<i>Prunus sp.</i>	Moderate	3, 3, 6, 6, 6, 6, 6	No
52	Cherry tree	<i>Prunus sp.</i>	Moderate	3, 3, 3, 3, 6, 6, 6	No
53	Privet	<i>Ligustrum sp.</i>	Moderate	6, 6, 6, 6, 9, 9, 9	No
54	Olive	<i>Olea europaea</i>	Healthy	3, 3, 3, 6, 6, 9	No
55	Olive	<i>Olea europaea</i>	Healthy	3, 3, 3, 6, 6	No
56	English walnut	<i>Juglans regia</i>	Poor	9, 19, 19, 25	Yes
57	Coast live oak*	<i>Quercus agrifolia</i>	Healthy	6, 6	No
58	Coast live oak*	<i>Quercus agrifolia</i>	Healthy	3, 6, 6, 9	No
59	Coast live oak*	<i>Quercus agrifolia</i>	Healthy	3, 3, 6, 6	No
60	Coast live oak*	<i>Quercus agrifolia</i>	Healthy	3	No
61	Coast live oak*	<i>Quercus agrifolia</i>	Healthy	22	Yes
62	Coast live oak*	<i>Quercus agrifolia</i>	Healthy	6	No
63	Coast live oak*	<i>Quercus agrifolia</i>	Healthy	13	Yes
64	Coast live oak*	<i>Quercus agrifolia</i>	Healthy	6	No
65	Apricot tree	<i>Prunus armeniaca</i>	Moderate	18	Yes

Tree ID	Common Name	Scientific Name	Health <sup>1</sup>	Circumference <sup>2</sup> (inches)	City-designated Protected Tree
66	Plum tree	<i>Prunus</i> sp.	Moderate	15	Yes
67	Plum tree	<i>Prunus</i> sp.	Healthy	3, 3, 3	No
68	Plum tree	<i>Prunus</i> sp.	Moderate	8, 3, 5	No

Notes:

<sup>1</sup> Health Definitions  
*Healthy* – A tree with virtually no signs of disease and good structure and form.  
*Moderate* – A tree with moderate signs of disease, some branch dieback, poor leaf color, structural defects, or other signs of disease that could be corrected.  
*Poor* – A tree with serious health issues, extensive dieback, loss of leaves, extensive structural defects, or other signs of disease that cannot be remedied.

<sup>2</sup> Where trees had multiple trunks, circumference listed for each trunk. In addition, trees that were less than 3 inches in circumference (1 inch in diameter) were not measured; these immature trees, or saplings, were clearly under the threshold for protected trees, per the Union City Municipal Code.

\*Tree species is native to California.  
\*\* Non-native tree species were unidentifiable due to the absence of reproductive parts; the Jepson Manual (Baldwin et al., 2012) was used to key the vegetative parts of the trees which indicated that the trees were not native.

Source: ICF tree inventory at the project site on April 15, 2019.

## Recommended Mitigation

As stated above, a total of 68 trees were documented in this tree inventory, 47 of which are protected. The proposed project would require the removal of all existing trees within the project site due to conflicts with the design of the project and would plant approximately 709 trees within the project site. Based on a review of the conceptual tree plan dated January 31, 2020, the proposed trees would be planted throughout the project site. The majority of the trees would be planted along existing streets that border the project site (Decoto Road, 7<sup>th</sup> Street, and Bradford Way) as well as along the proposed streets and the linear paseo.

Provided below are the general mitigation and protection measures recommended by ICF related to tree removal and preservation.

### Mitigation Measure Recommendation No. 1:

Prior to issuance of building permits, the project sponsor shall be required to comply with Chapter 12.16.170 of the Union City Municipal Code and, therefore, required to obtain approval to remove the 47 protected trees by submitting tree removal permits to the City of Union City Public Works Department. As a condition for granting a permit, the deciding official or deciding body may require one or more replacement trees of a species and size designated by the Director of Public Works to be planted on public or private property. The proposed project shall comply with Union City’s tree replacement ratio which will be determined by the City Arborist after review of the project applicant’s submittal of a Tree Service Permit Application. The tree replacement ratio is based on the City Arborist’s review of the number, species, size, and health of the trees to be removed. Although the project is proposing a tree replacement ratio of approximately 8:1, the ratio will be increased to equal the ratio determined by the City Arborist

if it is higher than 8:1. The person requesting the permit or the property owner may also be required to pay the cost of obtaining and planting the replacement trees.

### **Mitigation Measure Recommendation No. 2:**

The following tree protection measures shall be implemented during construction for adjacent off-site trees that are not identified for removal:

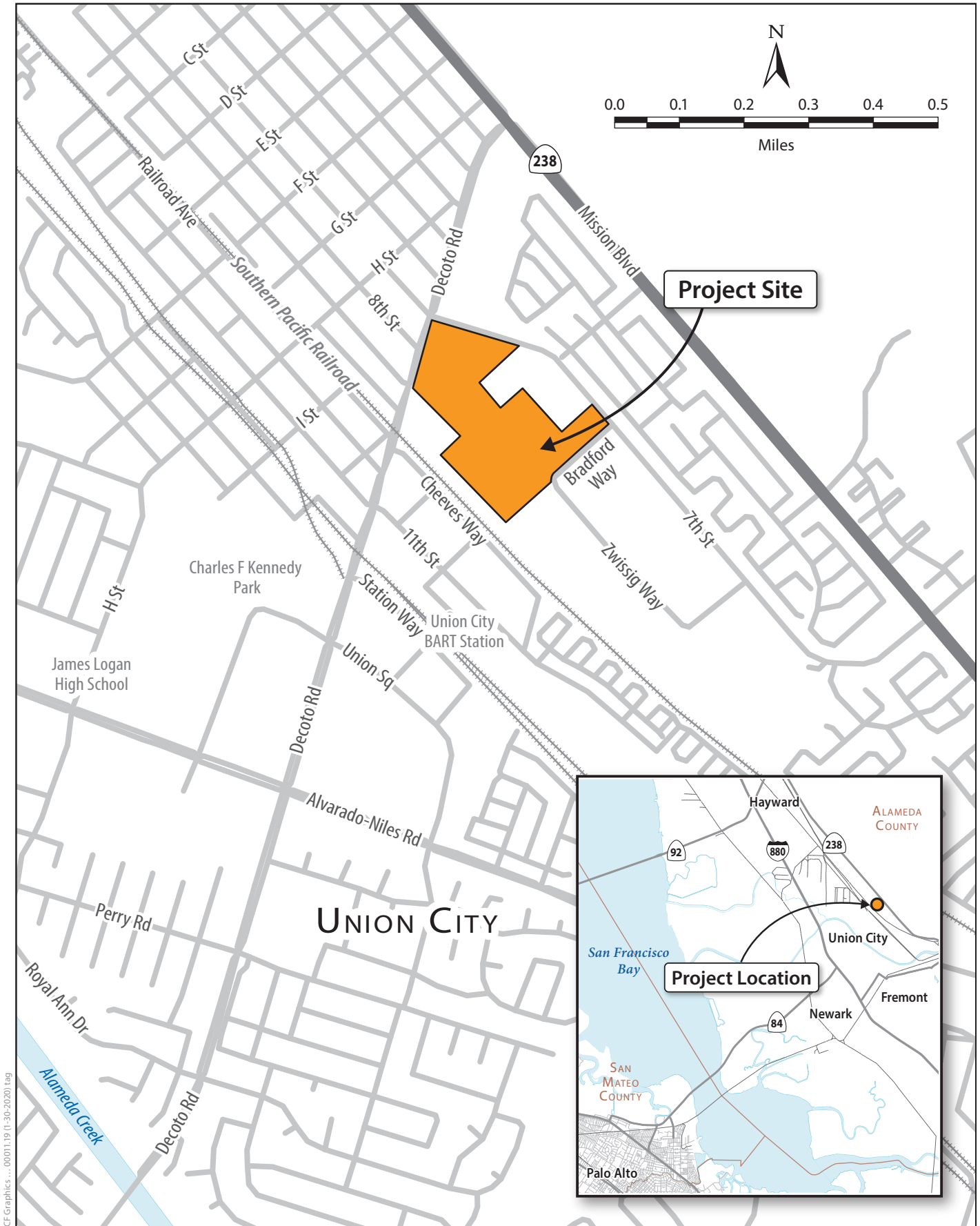
- Signage that indicates that equipment and construction vehicles are prohibited beyond fencing limits shall be posted on or near the fencing.
- Soil shall be irrigated during the dry season. During periods of extended drought or during grading, trunks, limbs, and foliage shall be sprayed to remove accumulated construction dust.
  - If soil compaction occurs, or is proposed, the following measures shall be implemented, in coordination with the City arborist, where trees are adjacent to the construction zone:
  - Four-inches of wood-chip/bark mulching shall be placed around the tree.
  - A soil aeration system shall be installed, as designed and specified by the City arborist.
  - Any soil compaction materials that encroach upon a tree shall include an aeration system designed by the City arborist (Code Publishing Company 2018).

If field conditions dictate the removal of any trees that were not previously identified for removal or if previously unanticipated tree pruning or trimming is required, the project applicant shall be required to comply with the applicable mitigation and protection measures identified above.

## **References**

City of Union City. n.d. *Union City Municipal Code*. Chapter 12.16, Trees, Shrubs and Plants. Available: [https://qcode.us/codes/unioncity/view.php?topic=12-12\\_16&frames=off](https://qcode.us/codes/unioncity/view.php?topic=12-12_16&frames=off). Accessed: March 28, 2019.

The Jepson Manual: Vascular Plants of California. B.G. Baldwin, D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken [editors]. 2012. 2nd edition, thoroughly revised and expanded. University of California Press, Berkeley, CA. January.



ICF Graphics ... 00011.19 (1-30-2020) tag



**Figure 1**  
**Project Location**

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Figure 2  
Tree Inventory for the Project Site

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**Appendix A**  
**Photographs of Trees within the Project Site**

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Photograph 1. Landscaped and developed lands, with olive #47 (protected) adjacent to building near 7<sup>th</sup> Street and Decoto Road intersection in the northern portion of the project site. Facing south.



Photograph 2. A row of trees, including Peruvian pepper #29, date palm #32, and coast live oaks #30 and #33 (all protected), near Decoto Road in the northern portion of the project site. Facing north.



Photograph 3. Silver dollar gum #3 (protected) along 7<sup>th</sup> Street in the eastern portion of the project site. Facing north.



Photograph 4. Mexican fan palm #48 (protected) in ruderal lands in the foreground and silver dollar gum #4 (protected) in the background along 7<sup>th</sup> Street in the eastern portion of the project site. Facing east.



Photograph 5. Coast live oaks #56–#60, #61 (protected), #62, #63 (protected), and #64 in the western portion of the project site. Facing south.



Photograph 6. Developed land with no trees in the northern portion of the project site. Facing west.



Photograph 7. Agricultural field with no trees in the middle portion of the project site.  
Facing north.



**Appendix 4.2-2**  
**Special-Status Species with Potential to Occur in the Project Site**



## Special-Status Species with Potential to Occur in the Project Site

**Table 1. Special-Status Wildlife and Fish with Potential to Occur in the Project Site**

Common Name Scientific Name	Status <sup>a</sup> Federal/ State/ Other	Geographic Range	General Habitat Description	Potential for Occurrence	Rationale
<b>Invertebrates</b>					
Crotch bumble bee <i>Bombus crotchii</i>	FCE/-/-	Encompasses the Mediterranean region of California from along the Pacific Coast through the Inner Coast ranges and Great Central Valley into the Sierra foothills and the western portion of the Mohave Desert. Considered to be potentially absent from the Central Valley.	Inhabits open grassland and scrub habitats and primarily nests underground. Typically overwinter in soft, disturbed soil or under leaf litter or other debris. Primarily associated with the following plant families: <i>Fabaceae</i> , <i>Apocynaceae</i> , <i>Asteraceae</i> , <i>Lamiaceae</i> , <i>Boraginaceae</i> including plants in the genera <i>Asclepias</i> , <i>Chaenactis</i> , <i>Lupinus</i> , <i>Medicago</i> , <i>Phacelia</i> , and <i>Salvia</i> .	Low	No suitable habitat (grassland with diverse native flowering plants) present in the project site; urban infill sites unsuitable. Nearest CNDDDB record (Occurrence # 18) is located approximately 4.8 miles northwest of the project site.

<b>Common Name Scientific Name</b>	<b>Status<sup>a</sup> Federal/ State/ Other</b>	<b>Geographic Range</b>	<b>General Habitat Description</b>	<b>Potential for Occurrence</b>	<b>Rationale</b>
Monarch (California overwintering) <i>Danaus plexippus</i>	-/-/-	Winter roost sites extend along the coast from northern Mendocino County to Baja California	Roosts located in wind-protected tree groves ( <i>Eucalyptus</i> sp., <i>Pinus radiata</i> , and <i>Hesperocyparis macrocarpa</i> ) with nectar and water sources nearby	Low	Suitable roosting habitat ( <i>Eucalyptus</i> sp.) is present within the project site, but site without nectar and water sources nearby. In addition, trees are planted in rows, not a grove, and the project site is surrounded by agricultural and developed land. Nearest CNDDDB record (Occurrence # 244) is located approximately 2.93 miles southwest of the project site.
San Bruno elfin butterfly <i>Callophrys mossii bayensis</i>	FE/-/-	San Bruno Mountains, Montara Mountains, and northern end of Santa Cruz Mountains in San Mateo County	North-facing slopes and ridges facing Pacific Ocean from 180 to 335 meters that support <i>Sedum spathulifolium</i>	None	Project site located outside species' known geographic and elevation range; site approximately 20 meters above sea level.
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	FT/-/-	Central Valley, central and south Coast Ranges from Tehama to Santa Barbara County; isolated populations in Riverside County	Common in vernal pools; also found in sandstone rock outcrop pools	None	No suitable vernal pool or outcrop pools is present within the project site.
Vernal pool tadpole shrimp <i>Lepidurus packardi</i>	FE/-/-	Shasta County south to Merced County	Found in vernal pools and ephemeral stock ponds	None	No suitable vernal pool or ephemeral stock pond habitat is present within the project site.

<b>Common Name Scientific Name</b>	<b>Status<sup>a</sup> Federal/ State/ Other</b>	<b>Geographic Range</b>	<b>General Habitat Description</b>	<b>Potential for Occurrence</b>	<b>Rationale</b>
Western bumble bee <i>Bombus occidentalis</i>	FCE/-/-	Current range in California is restricted to populations at high-elevation sites in the Sierra Nevada and a few observations on the northern California coast.	Require suitable nesting sites, overwintering sites for the queens, and nectar and pollen resources throughout the spring, summer, and fall. Primarily associated with the following plant families: <i>Melilotus, Cirsium, Trifolium, Centaurea, Chrysothamnus, and Eriogonum</i>	None	Project site is located outside species known range. Nearest CNDDDB record (Occurrence #228) for the species is from 1932 located approximately 1.33 miles southeast of the project site.
<b>Fish</b>					
Delta smelt <i>Hypomesus transpacificus</i>	FT, CH/SE/-	Primarily in the Sacramento–San Joaquin Estuary, but has been found as far upstream as the mouth of the American River on the Sacramento River and Mossdale on the San Joaquin River; range extends downstream to San Pablo Bay	Occurs in estuary habitat in the Delta where fresh and brackish water mix in the salinity range of 2–7 parts per thousand (Moyle 2002)	None	Project site is located outside species range and no suitable aquatic habitat is present.
Central California Coast steelhead (pop 8) <i>Oncorhynchus mykiss</i>	FT/-/-	Russian River to Soquel Creek, Santa Cruz Co.	Cold, clear water with clean gravel of appropriate size for spawning. Most spawning occurs in headwater streams. Steelhead migrate to the ocean to feed and grow until sexually mature.	None	Project site is located outside species range and no suitable aquatic habitat is present.

Common Name Scientific Name	Status <sup>a</sup> Federal/ State/ Other	Geographic Range	General Habitat Description	Potential for Occurrence	Rationale
<b>Amphibians</b>					
California red- legged frog <i>Rana draytonii</i>	FT/-/SSC	Along the coast and coastal mountain ranges of California from Mendocino County to San Diego County and in the Sierra Nevada from Butte County to Stanislaus County	Permanent and semipermanent aquatic habitats, such as creeks and cold-water ponds, with emergent and submergent vegetation; may aestivate in rodent burrows or cracks during dry periods.	None	No suitable aquatic habitat (creeks and ponds) present in the project site. Project site surrounded by agricultural and developed land.
California tiger salamander <i>Ambystoma californiense</i>	FT/ST/-	Central Valley, including Sierra Nevada foothills, up to approximately 300 meters in elevation, and coastal region from Sonoma County south to Santa Barbara County	Small ponds, lakes, or vernal pools in grasslands and oak woodlands for breeding; rodent burrows, rock crevices, or fallen logs for upland cover during dry season	None	No suitable aquatic breeding habitat (small ponds, lakes, or vernal pools) present in the project site. Project site surrounded by agricultural and developed land.
Foothill yellow- legged frog (Central Coast population) <i>Rana boylei</i>	-/SE/-	Klamath, Cascade, north Coast, south Coast, Transverse, and Sierra Nevada Ranges up to approximately 1,830 metes	Streams in woodland, forest, mixed chaparral, and wet meadow habitats with rock and gravel substrate and low overhanging vegetation along the edge; usually found near riffles with rocks and sunny banks nearby	None	No suitable aquatic habitat (streams) present in the project site. Project site surrounded by agricultural and developed land.
<b>Reptiles</b>					
Alameda whipsnake <i>Masticophis lateralis euryxanthus</i>	FT/ST/-	Restricted to Alameda and Contra Costa Counties; fragmented into 5 disjunct populations throughout its range. Absent from Central Valley floor	Valleys, foothills, and low mountains associated with northern coastal scrub or chaparral habitat; requires rock outcrops for cover and foraging	None	Project site does not occur within one of the five known population and lacks habitat (scrub or chaparral with rock outcrops). Project site surrounded by agricultural and developed land.

<b>Common Name</b>	<b>Status<sup>a</sup> Federal/ State/ Other</b>	<b>Geographic Range</b>	<b>General Habitat Description</b>	<b>Potential for Occurrence</b>	<b>Rationale</b>
Western pond turtle <i>Emys marmorata</i>	-/-/SSC	From the Oregon border of Del Norte and Siskiyou Counties south along the coast to San Francisco Bay, inland through the Sacramento Valley, and on the western slope of Sierra Nevada	Ponds, marshes, rivers, streams, and irrigation canals with muddy or rocky bottoms and with watercress, cattails, water lilies, or other aquatic vegetation in woodlands, grasslands, and open forests	None	No suitable aquatic breeding habitat (ponds, marshes, rivers, streams, and irrigation canals) present in the project site. Project site surrounded by agricultural and developed land.
<b>Birds</b>					
Bank swallow <i>Riparia riparia</i>	-/ST/-	Occurs along the Sacramento River from Tahama County to Sacramento County, along the Feather and lower American Rivers, in the Owens Valley; and in the plains east of the Cascade Range in Modoc, Lassen, and northern Siskiyou Counties. Small populations near the coast from San Francisco County to Monterey County	Nests in bluffs or banks, usually adjacent to water, where the soil consists of sand or sandy loam	None	No suitable nesting habitat (sandy bluffs or banks) present in the project site. No aquatic habitat on or near project site.

<b>Common Name Scientific Name</b>	<b>Status<sup>a</sup> Federal/ State/ Other</b>	<b>Geographic Range</b>	<b>General Habitat Description</b>	<b>Potential for Occurrence</b>	<b>Rationale</b>
Burrowing owl <i>Athene cunicularia</i>	-/-/SSC	Lowlands throughout California, including the Central Valley, northeastern plateau, southeastern deserts, and coastal areas; rare along south coast	Level, open, dry, heavily grazed or low stature grassland or desert vegetation to forage in with available burrows for refuge and nesting	Low (foraging only)	No suitable habitat (heavily grazed or low stature grassland or desert vegetation with available burrows) present in the project site. High stature grassland and ruderal habitat onsite is highly fragmented and not open (situated near trees, a wheat field, buildings, or other infrastructure). Foraging habitat (grassland) is present in the project site, but habitat size is marginal (2.03 acres) and surrounded by agricultural and developed land. Nearest CNDDB record (Occurrence #51) for the species is located approximately 3.65 miles southwest of the project site.
California black rail <i>Laterallus jamaicensis coturniculus</i>	-/ST/FP	Permanent resident in the San Francisco Bay and east ward through the Delta into Sacramento and San Joaquin Counties; small populations in Marin, Santa Cruz, San Luis Obispo, Orange, Riverside, and Imperial Counties	Tidal salt marshes associated with heavy growth of pickleweed; also occurs in brackish marshes or freshwater marshes at low elevations	None	No suitable habitat (marshes) present in the project site. Project site surrounded by agricultural and developed land.
California Ridgway rail <i>Rallus obsoletus obsoletus</i>	FE/SE/FP	Permanent resident in marshes around the San Francisco Bay and east through the Delta to Suisun Marsh	Restricted to salt marshes and tidal sloughs; usually associated with heavy growth of pickle-weed; feeds on mollusks removed from the mud in sloughs	None	No suitable habitat (salt marshes and tidal sloughs) present in the project site. Project site surrounded by agricultural and developed land.



<b>Common Name</b> <b>Scientific Name</b>	<b>Status<sup>a</sup></b> <b>Federal/</b> <b>State/</b> <b>Other</b>	<b>Geographic Range</b>	<b>General Habitat</b> <b>Description</b>	<b>Potential</b> <b>for</b> <b>Occurrence</b>	<b>Rationale</b>
California least tern <i>Sterna</i> <i>antillarum</i> (= <i>Sterna</i> , = <i>albifrons</i> ) <i>browni</i>	FE/SE/FP	Along the Pacific Coast of California from San Francisco to Baja California	Nests on sandy, upper ocean beaches, and occasionally uses mudflats; forages on adjacent surf line, estuaries, or the open ocean	None	No suitable nesting habitat (sandy ocean beaches and mudflats) and foraging habitat (surf line, estuaries, and open ocean) is present in the project site. Project site surrounded by agricultural and developed land.
Golden eagle (nesting) <i>Aquila chrysaetos</i>	PR/-/FP	Foothills and mountains throughout California. Uncommon nonbreeding visitor to lowlands such as the Central Valley	Nest on cliffs and escarpments or in tall trees overlooking open country. Forages in annual grasslands, chaparral, and oak woodlands with plentiful medium and large- sized mammals	None (Moderate (foraging only)	No suitable nesting habitat (cliffs and escarpments or tall trees overlooking open country) present in the project site, and limited foraging habitat (grassland) present. Project site is flat and surrounded by agricultural and developed land. Nearest CNDDB record (Occurrence #55) for the species is located approximately 2.95 miles north of the project site.
Northern harrier <i>Circus cyaneus</i>	-/-/SSC	Throughout lowland California, but species has been recorded in fall at high elevations	Grasslands, meadows, marshes, and seasonal and agricultural wetlands; nests on the ground within a thicket of vegetation	Low (Moderate foraging only)	Suitable foraging and nesting habitat (grassland) is present within the project site, but habitat size is marginal (2.03 acres) and surrounded by agricultural and developed land. Nearest CNDDB record (Occurrence #5) for the species is located approximately 3.4 miles southwest of the project site.

<b>Common Name Scientific Name</b>	<b>Status<sup>a</sup> Federal/ State/ Other</b>	<b>Geographic Range</b>	<b>General Habitat Description</b>	<b>Potential for Occurrence</b>	<b>Rationale</b>
Peregrine falcon <i>Falco peregrinus anatum</i>	-/-/FP	Most widely found as a year-round resident in Northern California and along its coast; migrates long distances along the western coast of the US.	Includes many terrestrial landscapes mainly cliffs and nesting near water; also utilizes artificial habitats like towers, bridges, and large buildings. Utilizes open habitat for foraging.	Low (Moderate foraging only)	No suitable nesting habitat (cliffs, towers, bridges, and high buildings) present in the project site, and limited foraging habitat (grassland) present. Suitable foraging habitat (grassland and open air) is present within the project site. Project site is flat and surrounded by agricultural and developed land. Nearest CNDDDB records (Occurrence #s 2, 36, and 43) for the species is located approximately 7.48 miles east of the project site.
Saltmarsh common yellowthroat <i>Geothlypis trichas sinuosa</i>	-/-/SSC	Found only in the San Francisco Bay Area in Marin, Napa, Sonoma, Solano, San Francisco, San Mateo, Santa Clara, and Alameda Counties	Freshwater marshes in summer and salt or brackish marshes in fall and winter; requires tall grasses, tules, and willow thickets for nesting and cover	None	No suitable habitat (marshes) present in the project site. Project site surrounded by agricultural and developed land.
Song sparrow (Alameda population) <i>Melospiza melodia pusillula</i>	-/-/SSC	Found only in marshes along the southern portion of the San Francisco Bay	Brackish marshes associated with pickleweed; may nest in tall vegetation or among the pickleweed	None	No suitable habitat (marshes) present in the project site. Project site surrounded by agricultural and developed land.

<b>Common Name Scientific Name</b>	<b>Status<sup>a</sup> Federal/ State/ Other</b>	<b>Geographic Range</b>	<b>General Habitat Description</b>	<b>Potential for Occurrence</b>	<b>Rationale</b>
Tricolored blackbird (nesting colony) <i>Agelaius tricolor</i>	-/ST/-	Permanent resident in the Central Valley from Butte County to Kern County; breeds at scattered coastal locations from Marin County south to San Diego County, and at scattered locations in Lake, Sonoma, and Solano Counties; rare nester in Siskiyou, Modoc, and Lassen Counties	Nests in dense colonies in emergent marsh vegetation, such as tules and cattails, or upland sites with blackberries, nettles, thistles, and grain fields; habitat must be large enough to support 50 pairs; probably requires water at or near the nesting colony.	Low (Moderate foraging only)	Suitable foraging and nesting habitat (grain field) is present within the project site, but habitat size is marginal (12.33 acres) and surrounded predominately by developed land. Also, suitable habitat on project site is not located at or near water. Nearest CNDDDB record (Occurrence #25) for the species is located approximately 3.4 miles southwest of the project site.
Western snowy plover <i>Charadrius alexandrinus nivosus</i>	FT/-/SSC	Population defined as those birds that nest adjacent to or near tidal waters, including all nests along the mainland coast, peninsulas, offshore islands, and adjacent bays and estuaries. Twenty breeding sites are known in California from Del Norte to Diego County	Coastal beaches above the normal high tide limit in flat, open areas with sandy or saline substrates; vegetation and driftwood are usually sparse or absent	None	No suitable habitat (beaches and open areas with sandy or saline substrate) present in the project site. Project site surrounded by agricultural and developed land.

<b>Common Name</b> <b>Scientific Name</b>	<b>Status<sup>a</sup></b> <b>Federal/</b> <b>State/</b> <b>Other</b>	<b>Geographic Range</b>	<b>General Habitat</b> <b>Description</b>	<b>Potential</b> <b>for</b> <b>Occurrence</b>	<b>Rationale</b>
White-tailed kite <i>Elanus leucurus</i>	-/-/FP	Lowland areas west of Sierra Nevada from the head of the Sacramento Valley south, including coastal valleys and foothills, to western San Diego County at the Mexico border	Dense-topped trees or shrubs for nesting, open grasslands, marshes, or agricultural fields for foraging	Moderate	Suitable nesting habitat (dense-topped trees or shrubs) present in the project site; foraging habitat (grassland and agricultural fields) present but habitat sizes are marginal (2.03 acres and 12.33 acres respectively) and surrounded by agricultural and developed land. Nearest CNDDDB record (Occurrence #2) for the species is located approximately 3.78 miles southwest of the project site.
Yellow rail <i>Coturnicops noveboracensis</i>	-/-/SSC	Historical records of nests in Mono County east of the Sierra Nevada and formerly Marin County on the coast; winter records also on the coast from Humboldt County to Orange County	Freshwater marshes, brackish marshes, coastal salt marshes, and grassy meadows	None	No suitable habitat (marshes and grassy meadows) present in the project site. Project site surrounded by agricultural and developed land.
<b>Mammals</b>					
Hoary bat <i>Lasiurus cinereus</i>	-/-/WBWG- Medium	Widespread throughout California	Roosts in trees, typically within forests	Moderate	Suitable roosting habitat (trees) present in the project site. Nearest CNDDDB record (Occurrence #14) for the species is located approximately 4.38 miles northwest of the project site.

<b>Common Name</b> <b>Scientific Name</b>	<b>Status<sup>a</sup></b> <b>Federal/</b> <b>State/</b> <b>Other</b>	<b>Geographic Range</b>	<b>General Habitat</b> <b>Description</b>	<b>Potential</b> <b>for</b> <b>Occurrence</b>	<b>Rationale</b>
Pallid bat <i>Antrozous pallidus</i>	-/-/SSC, WBWG-High	Widespread throughout California	Occurs in a variety of habitats from desert to coniferous forest; most closely associated with oak, yellow pine, redwood, and giant sequoia habitats in northern California and oak woodland, grassland, and desert scrub in southern California; relies heavily on trees for cavity roosts, but will use crevices in man- made structures	Moderate	Suitable roosting habitat (trees and man-made structures) present in the project site. Nearest CNDDDB records (Occurrences #130 & #440) for the species is located approximately 4 miles northwest and east respectively of the project site.
Salt-marsh harvest mouse <i>Reithrodontomys raviventris</i>	FE/SE/FP	San Francisco, San Pablo, and Suisun Bays; the Delta	Salt marshes with a dense plant cover of pickle-weed and fat hen; adjacent to an upland site	None	No suitable habitat (salt marsh) present in the project site. Project site surrounded by agricultural and developed land
Townsend's big- eared bat <i>Corynorhinus townsendii</i>	-/SCT/ WBWG-High	Coastal regions from Del Norte County south to Santa Barbara County	Roosts in caves, tunnels, mines, and dark attics of abandoned buildings; very sensitive to disturbances and may abandon a roost after one onsite visit	Moderate	Suitable roosting habitat (buildings) present in the project site. Nearest CNDDDB record (Occurrence #420) for the species is located approximately 5.7 southeast of the project site.

<b>Common Name</b>	<b>Status<sup>a</sup> Federal/ State/ Other</b>	<b>Geographic Range</b>	<b>General Habitat Description</b>	<b>Potential for Occurrence</b>	<b>Rationale</b>
Notes:					
<sup>a</sup> Status Codes					
--= no listing.					
FE= listed as endangered under the federal Endangered Species Act.					
FT= listed as threatened under the federal Endangered Species Act.					
PD= proposed for delisting under the federal Endangered Species Act.					
FCE= candidate for federal endangered listing under federal Endangered Species Act.					
PR= protected by the federal Bald and Golden Eagle Protection Act.					
D= delisted.					
SE= listed as endangered under the California Endangered Species Act.					
ST= listed as threatened under the California Endangered Species Act.					
SSC= listed as a Species of Special Concern by the State of California.					
SCT= candidate for state threatened listing under the California Endangered Species Act.					
FP= California fully protected species.					
WBWG= Western Bat Working Group conservation priority (High or Medium)					

**Table 2. Special-Status Plants with Potential to Occur in the Project Site**

Common Name Scientific Name	Status <sup>a</sup> Federal/St ate/CNPS	Geographic Distribution	General Habitat Description	Potential to Occur	Rationale
Alkali milk vetch <i>Astragalus tener</i> <i>var. tener</i>	-/-/1B.2	Southern Sacramento Valley, northern San Joaquin Valley, east San Francisco Bay Area	Playas, on adobe clay in valley and foothill grassland, vernal pools on alkaline soils; 1-60 meters; blooms Mar-Jun	None	No suitable habitat (alkaline soils) in the project site.
Chaparral ragwort <i>Senecio aphanactis</i>	-/-/2B.2	Scattered locations in central western and southwestern California, from Alameda County to San Diego County	Oak woodland, coastal scrub, chaparral, open sandy or rocky areas, on alkaline soils; 15-800 meters; blooms Jan-Apr	None	No suitable habitat (oak woodland, coastal scrub, chaparral, open sandy or rocky areas) present in the project site.
Congdon's tarplant <i>Centromadia parryi</i> ssp. <i>congdonii</i>	-/-/1B.1	East San Francisco Bay Area, Salinas Valley, Los Osos Valley	Alkaline soils in annual grassland, on lower slopes, flats, and swales, sometimes on saline soils; below 230 meters; blooms May-Oct (Nov)	None	No suitable habitat (alkaline or saline soils) in the project site.
Contra Costa goldfields <i>Lasthenia conjugens</i>	FE/-/1B.1	Scattered occurrences in Coast Range valleys and southwest edge of Sacramento Valley, Alameda, Contra Costa, Mendocino*, Monterey, Marin, Napa, Santa Barbara*, Santa Clara*, Solano and Sonoma Counties	Wet areas in cismontane woodland, valley and foothill grassland, vernal pools, alkaline playas or saline vernal pools and swales; below 470 meters; blooms Mar-Jun	None	No suitable habitat (wet areas in cismontane woodland, valley and foothill grassland, vernal pools, alkaline playas or saline vernal pools and swales) present in the project site.

Diablo helianthella <i>Helianthella castanea</i>	-/-/1B.2	San Francisco Bay area: Alameda, Contra Costa, Marin*, San Francisco*, and San Mateo Counties	At chaparral/oak woodland ecotone, often in partial shade, on rocky soils, also coastal scrub, riparian woodland, broadleaved upland forest, valley and foothill grassland; 60-1300 meters; blooms Mar-Jun	None	No suitable habitat (chaparral/oak woodland ecotone) present in the project site.
Hairless popcorn-flower <i>Plagiobothrys glaber</i>	-/-/1A	Coastal valleys from Marin County to San Benito Counties	Alkaline meadows and seeps, coastal salt marsh and swamps; 15-180 meters; blooms Mar-May	None	No suitable habitat (alkaline meadows and seeps, coastal salt marsh and swamps) present in the project site.
Long-styled sand-spurrey <i>Spergularia macrotheca var. longistyla</i>	-/-/1B.2	Napa Valley to the San Francisco Bay Area	Meadows, seeps, and marshes on alkaline soils; 1- 255 meters; blooms Feb- May	None	No suitable habitat (meadows, seeps, and marshes) present in the project site.
Most beautiful jewelflower <i>Streptanthus albidus ssp. peramoenus</i>	-/-/1B.2	Eastern San Francisco Bay area, central outer South Coast Ranges in Alameda, Contra Costa, Monterey, Santa Barbara, Santa Clara, San Luis Obispo, and Stanislaus Counties	On serpentinite outcrops in chaparral, cismontane woodland, valley and foothill grassland, on ridges and slopes; 95-1000 meters; blooms (Mar) Apr-Sep (Oct)	None	Project site located outside species' known elevation range; site approximately 20 meters above sea level. No suitable habitat (serpentinite outcrops) in the project site.
Oregon polemonium <i>Polemonium carneum</i>	-/-/2B.2	Alameda, Del Norte, Humboldt, Marin, San Francisco, Siskiyou, San Mateo, Sonoma Counties; also Oregon, Washington	Coastal prairie, coastal scrub, lower montane coniferous forest; 0-1830 meters; blooms Apr-Sep	None	No suitable habitat (coastal prairie, coastal scrub, and lower montane coniferous forest) present in the project site.
San Joaquin spearscale <i>Extriplex joaquinana</i>	-/-/1B.2	West edge of Central Valley from Glenn County to Tulare County	Alkaline soils in chenopod scrub, meadows and seeps, playas, valley and foothill grassland; 1-835 meters; blooms Apr-Oct	None	No suitable habitat (alkaline soils) in in the project site.



Santa Cruz tarplant <i>Holocarpha macradenia</i>	FT/SE/1B.1	Coastal slope of the Santa Cruz Mountains, Monterey and Santa Cruz Counties, recently found in Solano County	Coastal terrace grasslands, coastal scrub, often on light sandy to sandy clay soils; 10- 220 meters; blooms Jun-Oct	None	No suitable habitat (coastal terrace grasslands and coastal scrub) present in the project site.
Slender-leaved pondweed <i>Stuckenia filiformis ssp. alpina</i>	-/-/2B.2	Scattered locations in California: Contra Costa, El Dorado, Lassen, Merced, Mono, Modoc, Mariposa, Placer, Santa Clara*, and Sierra Counties; Arizona, Nevada, Oregon, Washington	Freshwater marsh, shallow emergent wetlands and freshwater lakes, drainage channels; 300-2150 meters; blooms May-Jul	None	No suitable habitat (freshwater marsh, shallow emergent wetlands and freshwater lakes, and drainage channels) present in the project site.

\* = populations extirpated in the county.

<sup>a</sup> Status Codes:

--= no listing.

FE= listed as endangered under the federal Endangered Species Act.

FT= listed as threatened under the federal Endangered Species Act.

SE= listed as endangered under the California Endangered Species Act.

California Native Plant Society (CNPS) California Rare Plant Rank:

1A = List 1A species: plants presumed extirpated in California and either rare or extinct elsewhere.

1B = List 1B species: plants rare, threatened, or endangered in California and elsewhere.

2B = List 2B species: plants rare, threatened, or endangered in California, but more common elsewhere.

CNPS Code Extensions:

0.1 = seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat).

0.2 = fairly endangered in California (20-80% of occurrences threatened).

0.3 = not very threatened in California (<20% of occurrences threatened/low degree and immediacy of threat or no current threats known.)



**Appendix 4.3-1  
DPR Forms**



**P1. Other Identifier:** Air Liquide; Southern Pacific Railroad Spur

**\*P2. Location:**  Not for Publication  Unrestricted \*a. County Alameda

**\*b. USGS 7.5' Quad** Newark, CA **Date** 2018 **T** **R** ¼ of ¼ of Sec **B.M.**

**c. Address:** 700 Decoto Road City Union City Zip 94587

**d. UTM:** (give more than one for large and/or linear resources) Zone 10 S; 586754.31 mE/ 4161557.73 mN

**e. Other Locational Data:** (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Assessor's parcel numbers (APNs) 87-21-5-2, 87-21-13-2, and 87-23-10

**\*P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The subject resource evaluated in this Department of Parks and Recreation (DPR) form includes three related parcels: 1) 700 Decoto Road (APN 87-21-5-2), a former helium and gas plant that sits on a large, irregularly shaped parcel to the north and west; 2) a Southern Pacific Railroad (SPRR) spur that forms a Y-shaped parcel to the north and northeast (APN 87-21-13-2); and 3) an irregularly shaped parcel containing additional track, part of the SPRR spur to the south (APN 87-23-10). This DPR form will refer to the resource with all three parcels as the "subject property." As part of the subject property, the helium and gas plant will be referred to as "the industrial plant" when referred to individually; the rail spur will be referred to as the "SPRR spur" when referring to it individually. Although the SPRR spur is described in detail in an associated Linear Feature Record, it is evaluated in this DPR form in conjunction with the parcel at 700 Decoto Road as a feature of the larger subject property. (See Continuation Sheet)

**\*P3b. Resource Attributes:** (List attributes and codes) HP6. 1-3 story commercial building; HP4. Ancillary Building, HP8. Industrial Building; HP39. Other

**\*P4. Resources Present:**  Building  Structure  Object  Site  District  Element of District  Other

**P5a. Photograph or Drawing** (Photograph required for buildings, structures and objects)



**P5b. Figure 1:** Storage tanks (left) and compressed gas plant (right), east façade, facing southwest, October 10, 2019. Source: ICF.

**\*P6. Date Constructed/Age and Sources:**

Historic  Prehistoric  Both

c.1965–1968 (c.1965 SPRR spur right of way built; industrial plant constructed in 1968) (City of Union City, Building Division)

**\*P7. Owner and Address:**

Air Liquide America Specialty Gases, LLC  
P.O. Box 460149  
Houston, TX 77056-8149

**\*P8. Recorded by:** (Name, affiliation, address)

Andrea Dumovich, ICF  
201 Mission Street, Suite 1500  
San Francisco, CA 94105

**\*P9. Date Recorded:** October 10, 2019

**\*P10. Survey Type:** Intensive

**\*P11. Report Citation:** ICF. 2020. *Station East Residential/Mixed Use Project Draft Environmental Impact Report*. MONTH. Prepared for the City of Union City Planning Division, Union City, California.

**\*Attachments:**  NONE  Location Map  Sketch Map  Continuation Sheet  Building, Structure, and Object Record  Archaeological Record  District Record  Linear Feature Record  Milling Station Record  Rock Art Record  Artifact Record  Photograph Record

**BUILDING, STRUCTURE, AND OBJECT RECORD**

Page 2 of 20

\*NRHP Status Code 6Z

\*Resource Name or # (Assigned by recorder) 700 Decoto Road and Southern Pacific Railroad Spur

B1. Historic Name: Liquid Air, Inc.; American Cryogenics, Inc.; Southern Pacific Railroad Spur

B2. Common Name: Air Liquide; Southern Pacific Railroad Spur

B3. Original Use: Administrative offices; industrial gas manufacturing and distribution plant/helium depot; rail spur

B4. Present Use: Vacant/abandoned rail spur

\*B5. Architectural Style: Utilitarian/industrial

\*B6. Construction History: (Construction date, alteration, and date of alterations)

The SPRR spur's right of way was built circa 1965. Please refer to the associated Linear Feature Record for a detailed history regarding the SPRR spur.

Site plans for the industrial plant (known as Air Liquide) were completed in 1966. The site included a small office building, compressed gas plant, compressor house, two large tanks, a Pacific Gas and Electric (PG&E) substation and ACI substation, and a small branch from the SPRR spur (City of Union City 1966–1986). A permit was filed for the compressor house in 1966, with the proposed use being “machinery housing – air separation plant.” The total cost was \$1,800,000 (City of Union City 1966–1989). (See Continuation Sheet)

\*B7. Moved?  No  Yes  Unknown Date: N/A

Original Location: N/A

\*B8. Related Features: Landscaping, ancillary buildings, shed, canopy, electrical substations, cooling towers, storage tanks, railroad tracks/spur.

B9a. Architect: Paul Wilson Bosholm (architect: office building); Zimmerman, Evans & Leopold (site designer); I.C. Scherer of the California Nursery Company (landscape architect: office building)

B9b. Builder: Heart Construction Co. and J.W. McClenahan Co. (contractor: office building); W.B. Clausen (structural engineer, foundation only for the compressed gas plant); C. Norman Peterson Co. (contractor: compressed gas plant); Rogers Engineering Co. (architect: air separation plant/compressor house) Milton Beggson (civil engineer: air separation plant/compressor house); John J. Hicks (engineer: helium depot).

\*B10. Significance: Theme N/A Area N/A

Period of Significance N/A Property Type N/A

Applicable Criteria N/A

Historic Context

Union City Historic Context

The Ohlone were the first known native people to inhabit the land that is now referred to as Union City. Following the arrival of European settlers, Mission San Jose was established circa 1790 in an effort by Spanish colonists to convert the Ohlone to Christianity (Bevk 2015; Brunzell 2016:1). In 1821, Mexico gained independence from Spain, and by the 1830s, the Mexican government had established land grants throughout California. During this period, the land containing the subject property was considered part of Rancho Arroyo de la Alameda, granted to Jose de Jesus Vallejo in 1842 (Bevk 2015:2).

(See Continuation Sheet)

B11. Additional Resource Attributes: (List attributes and codes)

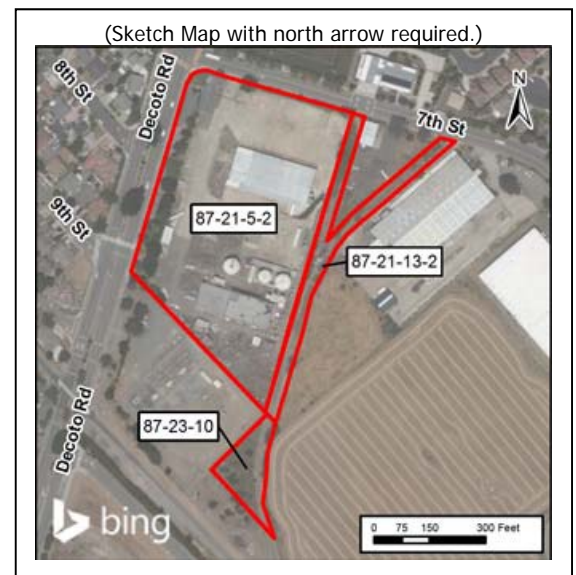
\*B12. References: (See Continuation Sheet)

B13. Remarks: N/A

\*B14. Evaluator: Andrea Dumovich, ICF

\*Date of Evaluation: October 11, 2019

(This space reserved for official comments.)



Page 3 of 20 \*Resource Name or #(Assigned by recorder) 700 Decoto Road and Southern Pacific Railroad Spur

\*Recorded by Andrea Dumovich, ICF

\*Date October 11, 2019

Continuation  Update

**\*P3a. Description** (continued):

The subject property is in the Decoto Industrial Park area. It is bound primarily by 7<sup>th</sup> Street to the north, Decoto Road to the west, a parcel containing electrical utility infrastructure to the south and west, the SPRR main line to the south, and a manufacturing facility to the east, along with undeveloped land (Figure 1). The industrial plant, which was built out by 1968, includes multiple buildings, structures, and a small branch of the SPRR spur (constructed c. 1965) within large surface parking areas (Figure 2).

Vegetation and fencing line the perimeter of most of the property along Decoto Road and 7<sup>th</sup> Street. Although the SPRR spur just south of 7<sup>th</sup> Street is not fully screened, almost all of the tracks are concealed by thick vegetation.

The subject property, which is industrial in character, contains several age-eligible buildings, structures, and railroad tracks. The industrial plant contains the following: an administrative office building at the northwest corner (built in 1968–1969), an industrial compressed gas plant in the center of the site (built in 1968), another large industrial air separation plant/compressor house (built 1968; expanded c. 1979), and a small branch of the SPRR spur south of the site (c. 1968).

Administrative Office Building

The administrative office is the only street-facing building on the subject property. The building is located near the industrial plant's main entrance at the corner of Decoto Road and 7<sup>th</sup> Street (Figure 3). Given its public-facing location, the administrative office presents a more distinctive architectural approach, with a stylized Late Modern design and an accentuated mansard roof. The building's L-shaped plan is composed of two building volumes: a long, rectangular single-story volume with a side-gabled roof and a smaller, rectangular two-story volume with a mansard roof. Its longer volume represents the Late Modern style, with its minimal ornamentation and uniform cladding (City of Palm Springs 2018:371). The smaller volume represents elements of the mansard style through a shingle-clad roof that conceals a second story. This is typical of the style, which was common in the 1960s–1970s (Department of Archaeology and Historic Preservation n.d.). Overall, the building features eaves with minimal overhang and primarily rough stucco cladding. The west (primary) façade, facing Decoto Road, is clad in rough stucco, with minimal concrete block detail at the base, shingles on the mansard roof volume, and limited fenestration. Two vinyl slider-type windows are located at the north end of the primary façade, on the first story below the mansard roof. Two long, rectangular symmetrical window openings flank the primary entrance, which is at the center of the façade in the single-story volume; however, the window to the north is boarded over. The other, to the south, is a three-part vinyl slider with a central fixed pane. The primary entrance is recessed into the building. It contains a door that appears to be solid metal. The door is set within a fixed window system (Figure 4), which is boarded over on the interior. Three additional vinyl slider-type windows are on the far south side of the primary façade in the single-story volume.

The administrative office building's north façade is clad in rough stucco. It includes two pairs of small vinyl slider-type windows on the ground floor (Figure 5). On the second story, there are two sets of paired one-over-one rectangular windows. The second-story bays, located at the far east side of the north façade, appear to be fixed with aluminum frames and sashes. The window farthest to the east is missing its upper glazing; a board is recessed behind the window. The adjacent window of that pair is missing its lower glazing. The pair of windows at the far west side of the north façade appear to be aluminum-frame units with fixed lower glazing and operable upper awning windows. The windows on the second-story bays are slightly angled to be in line with the mansard roof elevation.

The east façade is clad in rough stucco. It includes multiple windows, mostly small to medium-sized vinyl sliders. One of the windows, on the far south side of the east façade, is longer than the others and has a central fixed window flanked by two smaller slider-type windows. Three windows are boarded up on the interior, leaving the vinyl frames exposed; one window is partially boarded up on the exterior. The south façade of the long rectangular volume has a front-gabled roof and moderately exposed eaves. This façade contains a single metal door with a small light; the door is above ground level and accessed from a short concrete ramp with hand railings. A small rectangular vent, made from wood and metal, resides above the door. The ground-floor level on the south façade of the rectangular volume contains a single metal door; the door is above ground level and accessed from a long concrete platform with hand railings. The second story, on the mansard roof's south façade, contains one set of paired windows with one-over-one vinyl sashes, each with fixed lower glazing and operable upper awnings.

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A parking lot is adjacent to the building along the primary, east, and south façades. A retaining wall at the site's western boundary (just south of the small office building) is made from the same concrete block material as the lower portion of the primary façade. A metal post and a frame that no longer contains a sign is adjacent to the primary façade of the administrative office building. Landscaping surrounding the building along the primary and north façades includes manicured trees and shrubs. A small lawn is in front of the primary façade, and a small strip of grass is adjacent to the north façade.

#### Compressed Gas Plant Building

The large compressed gas plant at the center of the site is a one-story industrial building that is utilitarian in design. It does not represent a specific architectural style (Figure 1 and Figure 6). The rectangular building stretches across nearly half the width of the lot in an east/west orientation. The building is composed primarily of concrete block and set on top of a raised concrete slab foundation that is several feet tall. The original portion of the building is clad in concrete block; the west part of the building is an addition and clad in corrugated metal. It has a slightly lower roofline than the rest of the building. Overall, the building lacks formal window fenestration. Other than a few metal-frame clerestory windows on the south façade and pedestrian doors, the building contains primarily raised vehicular entrances with metal roll-up doors that serve its industrial use. The building has a modestly pitched roof with wide overhanging eaves and exposed rafters on the north, south, and east façades. The roof is clad in what appears to be sheets of corrugated metal. Two long, narrow loading docks are attached to the building's north façade. Mechanical ductwork is on the north, south, and east façades. Concrete and metal stairs are located on each façade, providing access to the pedestrian entrances and loading docks. A small projection to the building on the south façade was originally constructed for office use. Five storage tanks sit adjacent to the building's southeast corner, some of which store calcium hydroxide. South of the storage tanks are pipes and equipment as well as a metal structure, part of the site's liquid storage area.

South of the industrial compressed gas plant, just north of the air separation plant/compressor house, are three cylindrical liquid storage tanks containing deuterium (D<sub>2</sub>), nitrogen (N<sub>2</sub>), and argon (Ar). The tanks are metal clad and have the Air Liquide logo. They reach the height of a two-story building or slightly taller.

#### Air Separation Plant/Compressor House Building

The air separation plant/compressor house, toward the south end of the site, is a two- and three-story building. It is utilitarian in design and does not represent a specific architectural style (Figure 7 and Figure 8). Three-fourths of the building appears to be three stories; the rest of the building appears to be two stories, which creates a tiered or stepped style for the roof. Similar to the compressed gas plant, the air separation plant/compressor house is rectangular, stretching across nearly half the width of the lot. The building is composed primarily of concrete block cladding, with exposed steel framing that defines the building's bays. It sits on a concrete slab foundation. Overall, the building's fenestration is concentrated primarily at ground level on the north and south façades; it features one-over-two precast concrete sill windows with metal frames and muntins. In addition, the building contains a few metal pedestrian doors, some with limited glazing on the ground floor and second floor. The doors on the second floor are accessible from either metal or concrete block staircases. Large metal roll-up doors for vehicles are located at ground level on the west and south façades to serve the building's industrial use. The building has a flat roof with no eaves. Mechanical equipment, including a large tower structure, is located on the north and east façades, blocking the ground floor in those locations.

#### Small Branch of SPRR Spur

The SPRR spur is south and east of the subject property. A small branch splits off from the SPRR spur and enters the parcel at the southeast corner of the site. It then continues north along the eastern boarder of the site, terminating near the compressed gas plant (Figures 9–11). Another small branch of the SPRR spur serves an industrial building on an adjacent parcel east of the subject property. Additional details pertaining to the entire SPRR spur are provided in the Linear Feature Record sheets of this DPR.





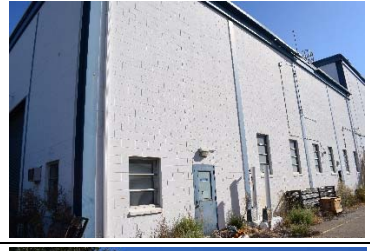

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The description above provides information regarding the three age-eligible buildings and the single railroad spur; it does not include every building/structure on the site. The table below lists the buildings/railroad spur described above and other features within the boundaries of the subject property:<sup>1</sup>






Resource Type and Façade Location	Location on Industrial Plant (Air Liquide Site)	Image	Approximate Year Built
Administrative office building, primary (west) façade	NW corner of site		1968–1969
Compressed gas plant building, east façade	Center of site		1968
Air separation plant/compressor house building, south façade	Southern portion of site		Partial 1968; expanded c. 1979
Shed, east and south façades	Center of site, at western boundary		c. 1988

<sup>1</sup> Because of the industrial nature of the site, the table may exclude some tanks, mechanical equipment, or affiliated structures that were not recorded in site plans or visible during the time of survey. The list is meant to provide an overview of the site's primary features.

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Resource Type and Façade Location	Location on Industrial Plant (Air Liquide Site)	Image	Approximate Year Built
Trailer building, east and north façades	Southern portion of site, at west boundary		c. 1988
Canopy, looking west	Center of site, at west boundary		c. 1988
Three large liquid storage tanks with deuterium (D <sub>2</sub> ), nitrogen (N <sub>2</sub> ), and argon (Ar); north façade	Center of site, at eastern boundary		Two tanks from 1968; third tank c. 1979
Concrete masonry block wall with attached light, meters, and pipes (unknown use); east façade	Center of site		Unknown (potentially c. 1979)
Scale house, west and north façades	Center of site		1968



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Resource Type and Façade Location	Location on Industrial Plant (Air Liquide Site)	Image	Approximate Year Built
Pipes, equipment, and a metal structure associated with the site's liquid storage area, west and north façades	Center of site, at east boundary		c. 1979–2009
Five storage tanks (some of which store calcium hydroxide), north façade	Center of site, at eastern boundary		c. 1993–2002
Cooling tower, north façade	Southern boundary		c. 1986
Maintenance shop, north and west façades	Southern boundary		c. 1979
PG&E substation and ACI substation, west façade	SE corner of site		Most likely 1968

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Resource Type and Façade Location	Location on Industrial Plant (Air Liquide Site)	Image	Approximate Year Built
Boiler (front) and cooling tower (behind), showing two cylindrical fans above, west façade	SE corner of site		Most likely 1968
Small branch of SPRR spur for Air Liquide, facing south	Center of site at eastern boundary		Most likely 1968

**\*B6. Construction History** (continued):

The industrial plant was constructed in 1968, based on tax assessor’s data and a review of historic aerials (ParcelQuest 2019; Nationwide Environmental Title Research [NETR] 1968). Building permits, site plans, and historic aerials reveal that the office building was partially constructed in 1968 and completed in 1969 (NETR 1968; City of Union City 1966–1986; City of Union City 1966–1989). Other permits filed for the industrial plant pertain to an addition to the compressor house (1970); a sign permit (1972); an addition to one of the plants (1973); an addition to an industrial storage building on the site (1974); the addition of foundations at the air purification unit, part of the plant’s phase I expansion; and construction of an additional industrial building (1977) (City of Union City’s Building Division Permits 1966-1989). According to the records, the industrial plant had a small fire in 1981; however, no damage was reported (City of Union City 1966–1989). In 1989, a permit was filed for the installation of a storage tank with a leak sensor at the industrial plant (City of Union City 1966–1989). Per visual analysis, nearly all of the windows in the industrial plant’s office building have been replaced with vinyl windows; several of the windows have been boarded over. It also appears, after inspection, that the office building suffered fire damage; many of the windows are shattered and blackened.

**\*B10. Significance** (continued):

*Historic Context – continued*

Mission San Jose’s land, as well as the surrounding area, attracted settlers because of its agricultural promise (Brunzell 2016:1). In 1846, John Horner arrived, along with fellow Mormon farmers, at the location of present-day Union City. His involvement with the land led to further settlement in the area. For example, he opened a general store in a vacant building at Mission San Jose where he served the community by selling produce and built wharves and warehouses on Alameda Creek for shipping agricultural goods. Horner was able to settle the land because of the Mexican-America War of 1846–1848, which ended with the signing of the Treaty of Guadalupe Hidalgo in 1848, relinquishing California to the United States. In 1851, Horner set out to establish a town grid at the approximate location of today’s Union City Boulevard, Smith Street, and Alvarado Boulevard (Union City 2019:327). Together with his brother William, Horner put Union City on the map, so to speak, by laying out eight square blocks on the south side of the creek. The name Union City referred to Horner’s steamship, *The Union*, which he purchased for transporting agricultural products and passengers between Union City and San Francisco (Union City 2019:327). Following the 1850s, Union City quickly developed commercial businesses, including a saloon, several boarding houses and hotels, and factories (Bevk 2015:2).

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Adjacent towns in the immediate area were settled shortly after Horner arrived. In December 1850, Henry Smith established the town of New Haven (approximately 0.5 mile east of Union City), which was named after Smith's hometown in Connecticut. At some point around the mid-1800s, the towns of Union City and New Haven merged and became known as Alvarado (Blair Prentice, Harris & Associates 1989:1). Although Horner founded Union City, he is also attributed to be Alvarado's founder.

Decoto, north of Union City, was established by French Canadian Ezra de Coteau (anglicized to Decoto), who moved to California for the Gold Rush (Bevk 2015:2). Decoto and his two brothers purchased 334 acres of land in 1867 because of railroad speculation in Niles Canyon. Once the Central Pacific Railroad right of way was confirmed, Decoto and brothers sold their land to the Decoto Land Company and settled the land bound by Whipple Road (north), Mission Boulevard and Decoto Road (east), and the railroad right of way (west and south) (Union City 2019:323). On June 11, 1870, the Decoto Land Company filed for incorporation in Alameda County, even though the land had yet to be surveyed and few structures had been built. Nearly 30,000 evergreen trees were planted in preparation for development within the town. Shortly thereafter, a hotel and, eventually, warehouses developed around Decoto's railroad station. However, Decoto maintained its rural roots and remained mostly undeveloped, with few residential developments outside the city center for most of its early years. Local produce growers resided close to railroad lines, prompting two canneries to open early in Decoto's history. One of Decoto's largest employers, the Pacific States Steel factory, began operation in 1937. Early Decoto settlers were primarily Portuguese, with a later influx of Mexican immigrants through the 1930s and 1940s (Bevk 2015:2–3).

The adjacent cities of Hayward (north of Union City) and Fremont (south of Union City) began to expand in the post-World War II era. During the 1950s, adjacent cities, including Newark, Hayward, and Fremont, considered annexing the area spanning both Alvarado and Decoto; however, locals stunted any plans (Brunzell 2016:3). In 1959, Alvarado (originally known as Union City) and Decoto, both of which were still mostly rural, incorporated together, becoming a single new city known as Union City (Bevk 2015:3). During the year of incorporation, Union City had a population of approximately 6,000 (Brunzell 2016:3).

After annexation, Union City maintained both the Alvarado and Decoto communities, including their early boundaries and street grid patterns from their original settlement days in the mid-1800s. As a locally designated historic district, Union City's Alvarado Historic District continues to maintain multiple buildings dating from between 1880 and 1930 (City of Union City 2019:327). In the former Decoto community, the area immediately east of Decoto Road, just outside the original Decoto settlement, transformed in the middle of the twentieth century into a commercial and industrial area and became known as the Decoto Industrial Park. Following the closure of the canneries by the early 1960s and the Pacific States Steel factory in 1978, the Decoto Industrial Park area became a prime location for redevelopment speculation from the late 1980s to the 1990s (Bevk 2015:3; Heinisch 1994). By the early 2000s, the Pacific States Steel factory developed into housing. The adjacent area (part of the Decoto Industrial Park area) continues to develop as part of the Station District Mixed-Use Development Project, a transit-oriented development project adjacent to Union City's Bay Area Rapid Transit station (Jordan 2017).

### Rail Historic Context

#### *Southern Pacific Railroad*

Collis Potter Huntington, Mark Hopkins, Leland Stanford, and Charles Crocker, collectively known as the Big Four, are known for completing the Central Pacific Railroad in 1869, which ran from California to Utah. In 1861, the Big Four established a branch line of the Central Pacific that ran from San Francisco to San Diego. This was known as the Southern Pacific Railroad. By 1877, the SPRR extended to Arizona. By 1883, the SPRR connected to existing railroads that ran through New Mexico and Texas, terminating in New Orleans. This cross-continental railroad web was known collectively as the Central Pacific system. Between 1884 and 1885, the SPRR incorporated and absorbed the Central Pacific Railroad by leasing its infrastructure (Encyclopedia Britannica 2020).

The twentieth century, especially the 1920s, is generally considered SPRR's period of expansion and enormous growth. The conglomerate spent approximately \$76 million on various projects in the western United States and Mexico in the 1920s alone. With the advent and popularization of automobiles during the 1920s, railroad grade separation was needed for safety reasons. Between the world wars, from 1918 to 1941, approximately 4,000 grade crossings were built along SPRR lines in

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California, 30 percent of which were on the public highways where most fatalities occurred. Well over half of these grade crossings were improved during the period between the mid-1920s and 1941, the time when the grade separation movement was most active (JRP 2019).

#### *Railroad Spurs*

A railroad spur is defined as a “short sidetrack built to access an individual industrial facility, warehouse, or another property” (Ver Planck Historic Preservation Consulting 2018:2). In the early 1900s, the SPPR, Santa Fe Railroad, and Western Pacific Railroad maintained a stiff rivalry to gain railroad spur rights of way, both for the sake of expanding infrastructure and for blocking competing railroad companies’ ownership. As early as 1910 and continuing through the 1920s, railroad companies, including the SPRR, constructed warehouses along the ports in San Francisco and around San Francisco Bay for their rail infrastructure. These warehouses often included rail spurs that terminated within a property’s boundary. Between 1906 and 1929, the companies constructed hundreds of rails spurs in San Francisco alone. Warehouses that included SPRR spurs continued to be developed in the San Francisco Bay Area through the middle of the twentieth century (Ver Planck Historic Preservation Consulting 2018:4, 28).

#### Site History

The SPRR developed well before the subject property was developed in the late nineteenth century. An 1881 map shows the extant SPPR main line, which is south of the subject property, passing through the former Decoto community (Figure 12).

The earliest dated historic aerial, from 1946, shows that the subject property and surrounding land was vacant, with the exception of a few buildings west of Decoto Road (in a residential neighborhood), the SPRR tracks south of the subject parcel, and the Pacific States Steel factory to the southeast (NETR 1946). By 1958, the subject property and adjacent land to the east remained undeveloped; however, the land south of the subject property had begun to develop (NETR 1958).

Site plans reveal that the industrial plant (inclusive of the helium and gas plant) was designed in 1966 by the firm Zimmerman, Evans & Leopold (ZEL) for the Air Liquide gas company; the office and administration building was designed by architect Paul Wilson Bosholm in 1969, while I.C. Scherer of the California Nursery Company provided the landscape design for the office building (City of Union City 1966–1986).

Construction of the industrial plant began in 1968 in the Decoto Industrial Park area (City of Union City 1966–1986; ParcelQuest 2019; NETR 1968). According to the industrial plant’s permit history, other firms and individuals affiliated with design and construction included Heart Construction Company and J.W. McClenahan Company (contractor for the office building), W.B. Clausen (structural engineer, foundation only for the compressed gas plant building), C. Norman Peterson Company (contractor for the compressed gas plant), Rogers Engineering Company (architect for the air separation plant/compressor house), Milton Beggson (civil engineer for the air separation plant/compressor house), and John J. Hicks (engineer for the helium depot). The construction and engineering contractor, J.W. McClenahan Company, was established in 1940 in San Mateo; it has since expanded to Sacramento and Nevada (J.W. McClenahan n.d.a and J.W. McClenahan n.d.b). W.B. Clausen, the structural engineer, began operations in 1950, with design services that targeted “food processing facilities, marine facilities, asphalt plants, manufacturing plants, cold storage facilities, and institutional facilities” (Clausen Engineers 2019).

Although no historic Sanborn maps include the subject property, historic aerials and visual inspection revealed that the industrial plant was constructed earlier than the 1969 site plans indicate. In 1968, the site included the administration building and a paved lot at the northwest corner; the compressed gas plant at the center of the site; the air separation plant/compressor house, which appears to be only partially built, near the southern property line; and two large tanks to the north (ParcelQuest 2019; NETR 1968). Although it is difficult to discern from historic aerial imagery if the SPRR spur’s small branch, which currently exists on the subject property, was built in 1968, it is likely that it was completed by that year because it was included in the site plans for the industrial plant. Also by 1968, the SPRR spur’s other small branch, which enters the neighboring property to the east, is visible (NETR 1968). Additional site history specific to the SPRR spur is presented in the Linear Feature Record.

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By 1979, the air separation plant/compressor house near the southern property line of the industrial plant was expanded; a large third tank on the property appeared north of the air separation plant/compressor house (NETR 1979). In 2002, the residential subdivision to the north began to develop; by 2005, it was fully developed (NETR 2002 and 2005).

Ownership and Occupant History

The owners and occupants of the subject property are summarized in the tables below, which encompass the industrial plant parcel (addressed as 700 Decoto Road). Ownership/occupant information for the SPRR spur parcels (APNs 87-21-13-2 and 87-23-10) was not on file. Ownership information for the industrial plant (below) was gathered through tax assessor's data and permit/site records obtained at the City of Union City Building Division. Occupant information for the industrial plant was gathered through a combination of available *Haines Criss-Cross Directories* and building permits.

Year	Owner
1966–c. 1970	American Cryogenics
c. 1972–unknown	Liquid Air, Inc.
Unknown–present	Air Liquide America Specialty Gases, LLC

Year	Occupant
1968–c. 2007	Liquid Air, Inc.
c. 1978–1998	American Cryogenics, Inc.
c. 1982–unknown	A.L. Welding Product
c. 1992–1998	Logistics Express
c. 1997–c. 2019	Air Liquide America
Present	Vacant/no occupants

In summary, the industrial plant has had only one owner—Air Liquide—for the 53 years since it was first developed in 1966 (through 2019). The two other companies listed as owners merged and were acquired by Air Liquide (details provided below). Air Liquide is also the longest tenant. Other tenants that have occupied the subject property include A.L. Welding Product and Logistics Express. No relevant information was uncovered regarding those tenants. A detailed description of Air Liquide is provided below.

Paul Wilson Bosholm, AIA (Architect)

Paul Wilson Bosholm was a Palo Alto–based architect whose work was found throughout the San Francisco Bay Area in the 1960s. Prior to joining the Millbrae planning and engineering firm Wilsey, Ham & Blair (WH&B) in 1962, Bosholm worked at the University of California as a staff architect, was employed at the architectural firms of C.J. Ryland in Monterey and Elston and Cranston in Carmel, and operated a private practice in Carmel (*The Times San Mateo* 1962:16). While at WH&B, Bosholm held the title of *project architect*, “specializing in the field of planning, programming, and co-ordination of commercial and industrial projects” (*The Times San Mateo* 1962:16). Bosholm also completed single- and multifamily residential properties in Palo Alto and Carmel.

Zimmerman, Evans & Leopold (Site Designer)

In 1958, engineer Harry F. Zimmerman established the firm Zimmerman, Evans & Leopold after leaving his earlier partnership with Joseph Patchen at Patchen and Zimmerman Engineers. ZEL’s work focused on “designing major water and wastewater projects, including water transmission and treatment systems, as well as wastewater interceptors, pumping stations, and innovative wastewater treatment plants” (ZEL Engineers 2015). Some of ZEL’s noteworthy projects included Murray’s Biscuit Factory in South Australia and the Signal School in Augusta, Georgia (ZEL Engineers 2015).

Air Liquide (Current Owner)

Air Liquide has been operating since 1902, specializing in industrial gas manufacturing and distribution. The company operates air separation units for oxygen, nitrogen, and argon; steam methane reformers for hydrogen and syngas; carbon dioxide capture units to purify and liquefy carbon dioxide; and cogeneration facilities for electricity and steam. According to

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the company's website, "Air Liquide has developed an array of on-site industrial gas production technologies to meet the needs of many industries. We install, operate, and maintain a range of on-site production systems, which generate medium to large volumes of oxygen, nitrogen, and hydrogen at hundreds of customer sites" (Air Liquide 2019). Today, Air Liquide has more 140 production facilities in the United States (Air Liquide 2019). Air Liquide acquired American Cryogenics sometime between 1968 and 1972 and merged with Liquid Air in 1994 (Air Liquide n.d.).

### **California Register of Historical Resources Evaluation of 700 Decoto Road and SPRR Spur**

The subject property is not currently listed in the California Register of Historical Resources (CRHR), nor was it previously found eligible. The following discussion provides an evaluation of the subject property under CRHR Criteria 1–4. This evaluation looks at the industrial plant as a whole, including the Y-shaped SPRR spur that was built to support its industrial function. Additional detail about development of the SPRR spur is provided in the attached Linear Feature Record. This evaluation does not include findings regarding the individual eligibility of the SPRR system from which the subject spur originates.

#### **CRITERION 1 (Events)**

Under CRHR Criterion 1, the subject property at 700 Decoto Road, including the adjacent SPRR spur, does not appear to be associated with any event(s) significant in history. Constructed as an industrial gas manufacturing and distribution plant/helium depot, with administrative offices for Liquid Air, the industrial plant is not known to be associated with events that have made a significant contribution to the broad patterns of history. The Pacific States Steel factory began operating adjacent to the subject parcel in 1937; it was one of the earliest industrial plants in the immediate area. The subject property developed within the context of the Decoto Industrial Park area in the 1960s. The Liquid Air facility was not an early industrial facility in Union City. The industrial plant was also not the first facility constructed for Liquid Air, which is now known as Air Liquide, a company that began in France in 1902 and currently has more than 140 facilities in the United States (Air Liquide 2019). Overall, research did not yield evidence that the property is associated with any events or patterns of events that have historical significance. The property includes an SPRR spur with two lines and small branches (one small branch leads into the industrial plant property). The SPRR main line was extant circa 1881; however, the SPRR spur developed much later, in the mid-1960s. The SPRR spur right of way was first developed circa 1965 to serve the industrial function of the subject plant and the neighboring industrial site to the east. The spur is not related to any significant events associated with development or expansion of the SPRR main line, which is south of the subject property. Therefore, the subject property is not significant under CRHR Criterion 1.

#### **CRITERION 2 (Person)**

Under CRHR Criterion 2, the subject property at 700 Decoto Road, including the adjacent SPRR spur, appears to lack associative value related to significant persons. None of the known owners of the industrial plant or occupants of the buildings appear to be important to industrial development in Union City or the Decoto Industrial Park area. Although countless individuals were employed by Air Liquide and other tenants and worked within the subject property, no individual would have had a sustained association with the subject property and its buildings to the extent necessary to imbue significance under Criterion 2. The subject property is also not directly tied to any of Air Liquide's founders or important periods in the company's history. Properties eligible for listing in the CRHR for association with a historically significant individual are typically properties where such an individual performed the work or other activities for which he or she is known. Research yielded no evidence that the recorded portion of the SPRR spur has any significant association with the SPRR main line or significant persons. Under Criterion 2, therefore, the subject rail spur does not contribute to the significance of a larger linear transportation resource. The subject property is not significant under CRHR Criterion 2.

#### **CRITERION 3 (Design/Construction)**

Under CRHR Criterion 3, the subject property at 700 Decoto Road, including its three-age-eligible buildings, all of its ancillary buildings and structures, and SPRR spur, lacks distinctive architectural character and aesthetic value. Although the architects, designers, and engineers of much of the subject property are known, the industrial plant and SPRR spur do not appear to



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represent the work of master architects or designers. The administrative office building exhibits some characteristics of the Late Modern style, including its elongated form, large picture windows, and stylized mansard style; however, these elements were commonly applied to buildings of this type in the 1960s. The office building is not an exceptional example of its style. The other two large-scale industrial buildings are utilitarian, reflecting their use, and do not represent any particular style. Likewise, the large storage tanks and other ancillary buildings on the site are of vernacular design, related to their industrial use (i.e., storing liquid gases), and do not represent any particular style. Overall, the subject property is characterized by its industrial use and does not reflect a distinct architectural style. Although some of the age-eligible buildings reflect elements of certain architectural styles (discussed in detail below), overall, the site is regarded as an industrial complex that is devoid of a cohesive architectural style. The subject property and its buildings reflect common building designs and construction methods, which are found throughout industrial areas in many American cities, and do not embody a noteworthy type, period, or method of construction. Therefore, the subject property is not significant under CRHR Criterion 3.

The subject SPRR spur does not have significance for its engineering or construction value. The approximately 0.18-mile segment consists of commonplace railroad features, such as standard-gauge steel track that has been affixed to timber ties. The spur serves an industrial complex and is not considered a major or important spur within the larger SPRR system. The subject SPRR spur does not, therefore, qualify for listing in the CRHR under Criterion C on its own and does not contribute to a larger linear resource with significance under Criterion C.

#### CRITERION 4 (Information Potential)

The subject property at 700 Decoto Road, including the adjacent SPRR spur, does not have the potential to provide significant information that would promote an understanding of prehistory or history, which most commonly applies to archaeological resources. The buildings are common examples of post-World War II administrative offices and industrial manufacturing and distribution plants/sites and would not yield information important to prehistory or history. The associated railroad spur is an example of a common transportation facility, which was built to serve the adjacent building's industrial use; it would not yield information important to prehistory or history. Therefore, the subject property is not significant under CRHR Criterion 4.

#### Conclusion

Based on an evaluation regarding CRHR Criteria 1 through 4, the subject property at 700 Decoto Road, including its three age-eligible buildings, all of its ancillary buildings and structures, and the SPRR spur, is ineligible for individual listing in the CRHR. The property is therefore not a historical resource for the purposes of the California Environmental Quality Act (CEQA), in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines, using the criteria outlined in Section 5024.1 of the California Public Resources Code.

#### \*B12. References (continued):

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Page 15 of 20 \*Resource Name or #(Assigned by recorder) 700 Decoto Road and Southern Pacific Railroad Spur

\*Recorded by Andrea Dumovich, ICF

\*Date October 11, 2019

Continuation  Update

Additional Figures:



Figure 2. Aerial view of industrial plant at 700 Decoto Road, outlined in green, facing north. Three age-eligible buildings and a small branch of the SPRR spur are outlined in red (administrative office building to the northwest, compressed gas plant at center, air separation plant/compressor house to the south, and a small branch of the SPRR spur to the east). Source: Union City Property Information Map, 2019; edited by ICF, 2019.



Figure 3. Office building at the industrial plant's northwest corner, facing east, October 10, 2019. Source: ICF.

Page 16 of 20 \*Resource Name or #(Assigned by recorder) 700 Decoto Road and Southern Pacific Railroad Spur

\*Recorded by Andrea Dumovich, ICF

\*Date October 11, 2019

Continuation  Update



Figure 4. Office building's main entrance and landscaping, facing east, October 10, 2019. Source: ICF.



Figure 5. Office building's north façade, facing south, October 10, 2019. Source: ICF.

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\*Recorded by Andrea Dumovich, ICF

\*Date October 11, 2019

Continuation  Update



Figure 6. Compressed gas plant, south façade, facing north, October 10, 2019. Source: ICF.



Figure 7. Air separation plant/compressor house, south façade, facing north, October 10, 2019. Source: ICF.

Page 18 of 20 \*Resource Name or #(Assigned by recorder) 700 Decoto Road and Southern Pacific Railroad Spur

\*Recorded by Andrea Dumovich, ICF

\*Date October 11, 2019

Continuation  Update



Figure 8. Air separation plant/compressor house, west façade, facing east, October 10, 2019. Source: ICF.



Figure 9. SPRR spur (foreground) and SPRR main line (background), facing southeast, October 10, 2019. Source: ICF.

Page 19 of 20 \*Resource Name or #(Assigned by recorder) 700 Decoto Road and Southern Pacific Railroad Spur

\*Recorded by Andrea Dumovich, ICF

\*Date October 11, 2019

Continuation  Update

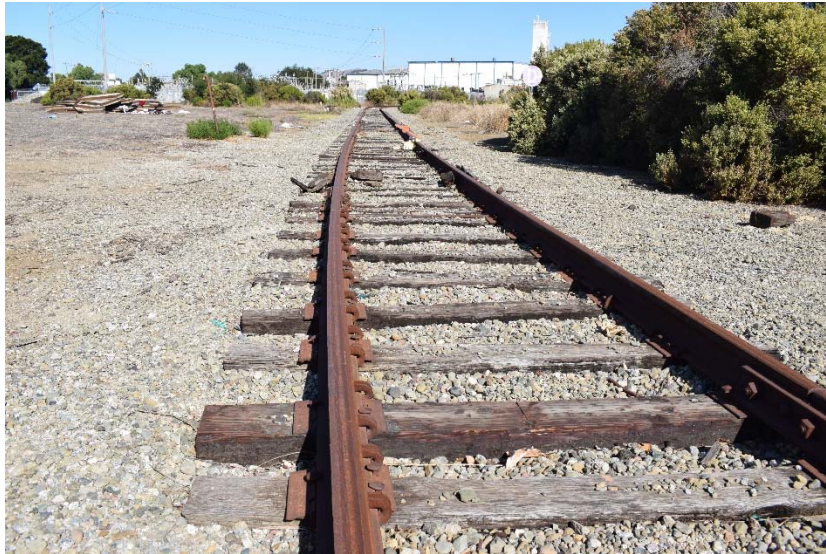


Figure 10. SPRR spur (foreground) and Air Liquide site (background), facing northwest, October 10, 2019. Source: ICF.



Figure 11. Small branch of SPRR spur inside the Air Liquide site, facing south, October 10, 2019. Source: ICF.

Page 20 of 20 \*Resource Name or #(Assigned by recorder) 700 Decoto Road and Southern Pacific Railroad Spur

\*Recorded by Andrea Dumovich, ICF

\*Date October 11, 2019

Continuation  Update



Figure 12. An 1881 Map of California and Nevada, zoomed in on the San Francisco Bay Area. Red arrow points to approximate location of subject property and SPRR main line to the south. Source: Holt, Warren, and C.D. Gibbes; accessed by David Rumsey, 2019.



Page 1 of 8                      \*Resource Name or # (Assigned by recorder) Southern Pacific Railroad Spur  
Recorded by Andrea Dumovich, ICF                      \*Date October 10, 2019

L1. Historic and/or Common Name: Southern Pacific Railroad Spur

L2a. Portion Described:         Entire Resource     Segment     Point Observation    Designation:

b. Location of point or segment: (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map) UTM: 10S 586854.01 mE/4161611.11 mN (north end of Line 1 near 7<sup>th</sup> Street); 10S 586923.12 mE/4161590.94 mN (northeast end of Line 2 near 7<sup>th</sup> Street); 10S 586781.22 mE/4161336.00 mN (south end of spur near southeast corner of parcel at 700 Decoto Road, north of the Southern Pacific Railroad [SPRR] main line)

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)  
Located in Union City, Alameda County, California, the subject resource is a railroad spur from the SPRR main line. (See Continuation Sheet)

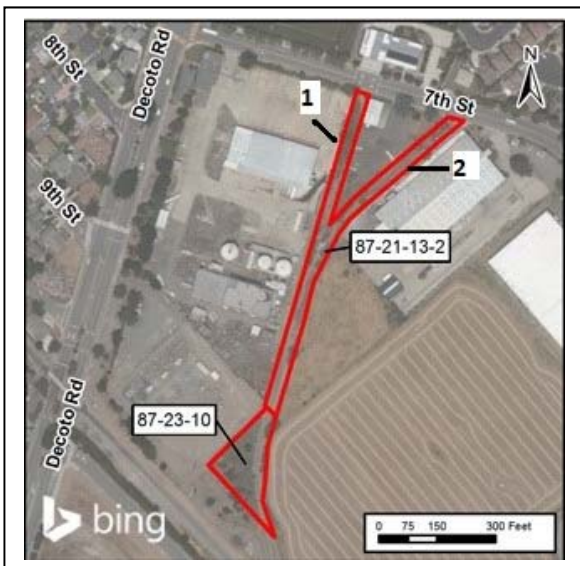
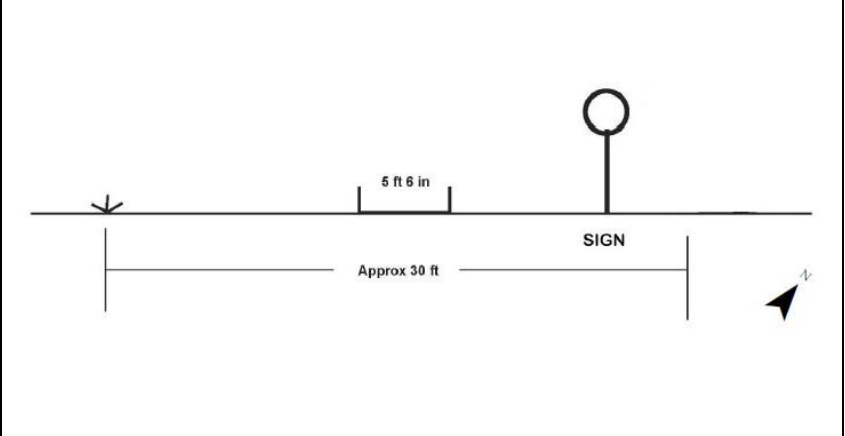
L4. Dimensions: (In feet for historic features and meters for prehistoric features)  
a. Top Width: N/A  
b. Bottom Width: N/A  
c. Height or Depth: N/A  
d. Length of Segment: Approximately 0.18 mile

L5. Associated Resources:  
The subject SPRR spur is further described and evaluated in the 523A, 523B, and 523L forms for 700 Decoto Road (Air Liquide site) and the SPRR spur.

L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.) (See Continuation Sheet)

L7. Integrity Considerations:  
(See Continuation Sheet)

L4e. Sketch of Cross-Section (include scale)



L8b. Description of Photo, Map, or Drawing (View, scale, etc.)  
Sketch map showing subject SPRR spur. Source: ICF.

L9. Remarks: None

L10. Form Prepared by: (Name, affiliation, and address)  
Andrea Dumovich, ICF  
201 Mission Street, Suite 1500  
San Francisco, CA 94105

L11. Date: October 10, 2019

### L3. Description (continued):

The subject resource includes a spur from the SPRR main line and a series of branches that intersect industrial parcels. The SPRR, which is south of the subject resource, will be referred to as the “SPRR main line.” The subject resource contains two lines that will be referred to as “Line 1” (the line to the left) and “Line 2” (the line to the right); see sketch map on page 1 for the visual depiction. The smaller branch lines that merge from Lines 1 and 2 will be referred to as “small branches.” This Department of Parks and Recreation form will refer to the entirety of the subject resource—Lines 1 and 2 and the small branches—as the “SPRR spur.”

The SPRR spur begins approximately 0.05 mile north of the SPRR main line and runs mostly parallel to Railroad Avenue (south) and Mission Boulevard (north) (Figure 1). The SPRR spur is in the Decoto Industrial Park area. The SPRR spur extends northward (running parallel to Decoto Road to the west) between two industrial parcels, then splits into Line 1 (left) and Line 2 (right). Line 1 continues to the north, and Line 2 continues to the northeast. Line 1 and Line 2 flank a third industrial parcel, forming a Y-shaped parcel. Line 1 and Line 2 end immediately south of 7<sup>th</sup> Street.

The entire length of the SPRR spur is an approximately 0.18 mile. The SPRR spur starts as a single track and runs approximately 0.10 mile. It then transitions to a double track, composed of Line 1 and Line 2, each spanning 0.08 mile. The SPRR spur’s Line 1 tracks to the west are north/south aligned, while the Line 2 tracks are slightly angled and northeast/southwest aligned. There are no at-grade crossings within the rail spur right of way. The subject resource appears to include mostly standard-gauge steel track, which is affixed to timber ties. The subject resource is missing timber ties at some locations, including the area near the point where the single track splits into two tracks (on both Line 1 and Line 2). Most of the SPRR spur is not visible from the public right of way. The parts that are visible include the north end of the Y-shaped parcel at 7<sup>th</sup> Street (Line 1 and Line 2); however, the tracks are hidden beneath overgrown vegetation (Figure 2 and Figure 3).

Beginning at the southernmost portion of the SPRR spur and moving north, the spur starts as a single track for approximately 0.04 mile, then a small branch splits off the SPRR spur and leads into the Air Liquide site to the west (at 700 Decoto Road), terminating within the site (Figure 4). The SPRR spur track continues north, with a small branch to the east that leads into the parcel at 33955 7<sup>th</sup> Street (presently R&S Manufacturing, Inc.) (Figure 5). The SPRR spur continues north for approximately 0.03 mile before diverging into Line 1 and Line 2, which form the Y-shaped parcel (Figure 6).

#### SPRR Spur Site History

The SPRR main line in Union City was developed in the late nineteenth century, before the subject resource was built. An 1881 map shows the extant SPRR main line, which is south of the subject parcel, passing through the Decoto community (currently known as the historic Decoto neighborhood in Union City) (Figure 7).

A 1964 map showing the immediate area also includes the SPRR main line; however, the subject SPRR spur is not included on the map; it most likely was not yet completed (Figure 8). A 1965 historic aerial image is the earliest date that shows the SPRR spur’s right of way (showing Line 1 and Line 2 as a Y-shaped parcel) (Figure 9) (University of California, Santa Barbara 2019). Historic aerial images from 1966 confirm that Line 1 terminated at 7<sup>th</sup> Street; however, Line 2 continued past 7<sup>th</sup> Street, approximately 0.20 mile farther, and terminated at Mission Boulevard (Nationwide Environmental Title Research [NETR] 1966). Because Line 2 does not continue past Mission Boulevard and Line 1 does not continue north of the immediate area, it appears that the SPRR spur was specifically constructed to serve the adjacent industrial parcels only.

The properties flanking the SPRR spur (700 Decoto Road to the west and 33955 7<sup>th</sup> Street to the east), as well as the small branches that lead into both properties, were developed jointly in circa 1968 to serve the properties’ industrial uses (Figure 10 and Figure 11) (NETR 1968). The property to the west, 700 Decoto Road, was originally constructed as a helium gas plant for the company known as Liquid Air (now known as Air Liquide); it is currently vacant. The earliest *Haines Criss-Cross Directory* that lists a tenant for the property at 33955 7<sup>th</sup> Street is from 1972. That tenant, Teledyne Columbia, was an industrial “producer of bars and tubing” with locations in Pennsylvania, Arizona, and California (*The News Herald* 1970:24). Today, the site at 33955 7<sup>th</sup> Street houses R&S Manufacturing, Inc. a manufacturer of rolling doors, with locations in California and Oregon (R&S Manufacturing, Inc. n.d.). The small branches that lead into the neighboring industrial buildings are extant today but are no longer in use. Many of their components (such as ties and tracks) have been removed or are no

longer visible because of unmanaged vegetation. The last historic aerial that shows Line 2 of the SPRR spur extending past 7<sup>th</sup> Street to Mission Boulevard is from 1993 (NETR 1993). By 2002, industrial buildings north of 7<sup>th</sup> Street appear to have been demolished, and the portion of Line 2 past 7<sup>th</sup> Street was no longer extant (NETR 2002). The area that previously housed the industrial buildings began to develop into a residential subdivision in 2002; by 2005, it was fully developed (NETR 2002 and 2005).

**L6. Setting** (continued):

The setting of the SPRR spur is urban and characterized mainly by a mix of industrial, residential, recreational, transit, and civic uses. Shorty Garcia Park, Alameda County Fire Station No. 33, and a residential housing tract lie north of the SPRR spur. A variety of light industrial and commercial/office uses, as well as a vacant parcel, are east of the SPRR spur. The SPRR main line is south of the SPRR spur; farther south, past Cheeves Way, are parking lots, multifamily residential units, the Union City Bay Area Rapid Transit station and associated railroad tracks, and the Western Pacific Railway tracks. The Air Liquide gas manufacturing plant at 700 Decoto Road is west of the SPRR spur; a parcel containing electrical utility infrastructure is southwest of the SPRR spur. Decoto Road and a residential neighborhood are farther to the west.

**L7. Integrity Considerations** (continued):

The SPRR spur retains integrity of location and association because it was constructed in the mid-1960s to serve the industrial buildings in the immediate area, which remain largely extant today. A residential subdivision was developed north of the SPRR spur in the early 2000s; however, the adjacent industrial sites remain today. Land, including land adjacent to the subject resource, was largely vacant up until the 1960s (except for the extant SPRR main line, developed in the late 1800s, and the Decoto neighborhood, settled circa 1860, to the west). The subject resource is in disrepair and not entirely visible because of vegetation coverage. The loss of original features associated with the track has substantially diminished the railroad alignment's integrity of design, workmanship, and materials.

**Figures:**



Figure 1. SPRR spur. The spur begins farther to the north (not publicly accessible). Looking northwest toward Decoto Road from the SPRR main line. Air Liquide site is in the background. Source: ICF, October 10, 2019.



Figure 2. North portion of Line 1 at 7<sup>th</sup> Street, looking southwest. Tracks are not visible from public right of way because of overgrown vegetation and private parcel access. Source: ICF, October 10, 2019.

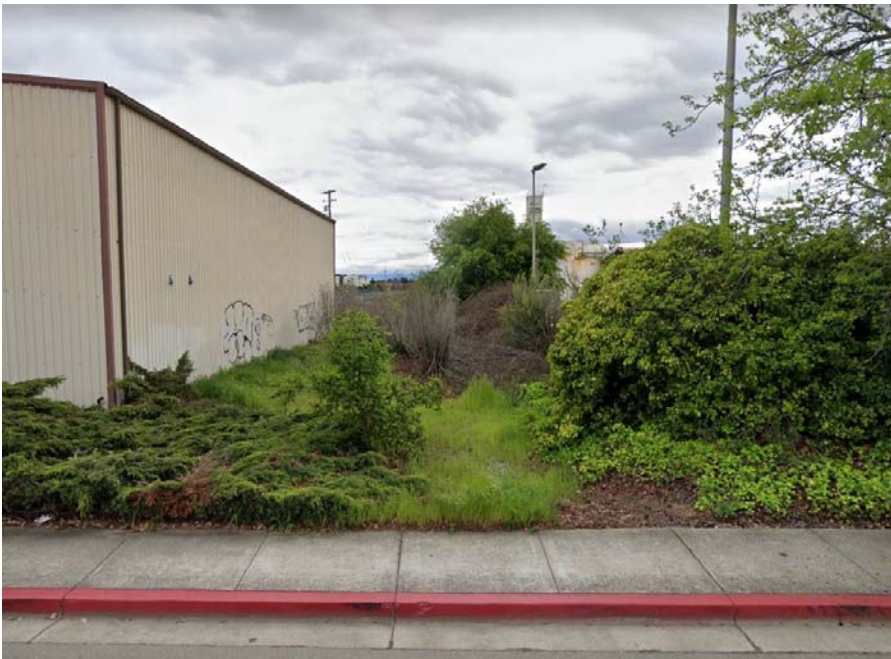


Figure 3. North portion of Line 2 at 7<sup>th</sup> Street, looking south. The tracks, which are not visible from public right of way, are overgrown with vegetation. Source: Google, April 2019.



Figure 4. South portion of SPRR spur. Right arrow points to SPRR spur tracks to the east. Left arrow points to a small branch line to the west, which leads into the Air Liquide site. Tracks are not visible from public right because of private parcel access. Source: Google, 2019.



Figure 5. Middle portion of SPRR spur where Line 1 and Line 2 appear. Upper left arrow points to Line 1; upper right arrow points to Line 2. Bottom arrow points to a small branch leading to the eastern parcel, which is currently R&S Manufacturing, Inc. Source: Google, 2019.

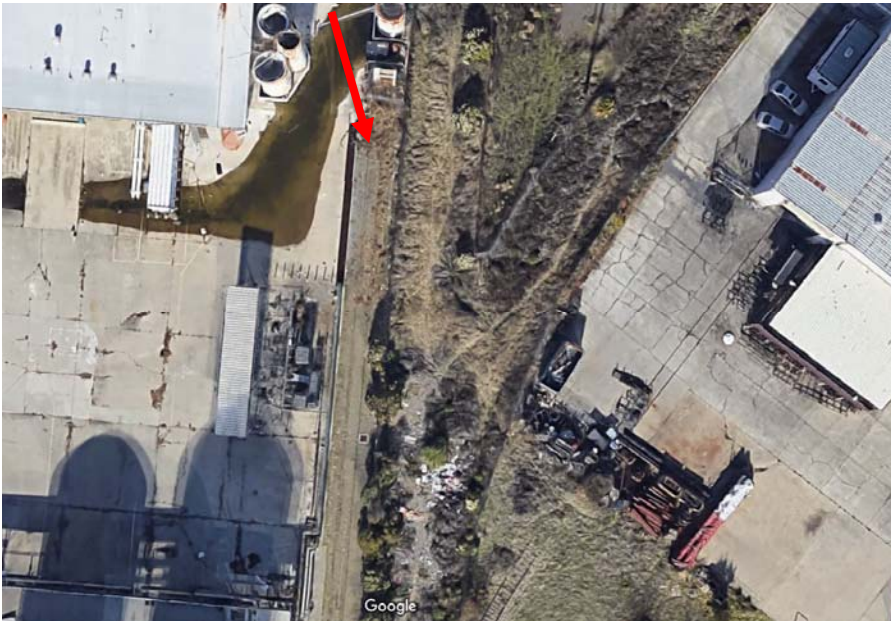


Figure 6. Subject resource, showing a small extant branch inside the Air Liquide site; the red arrow points to the northern terminus of the small branch. Source: Google, 2019.



Figure 7. An 1881 map of California and Nevada, zoomed in on the San Francisco Bay Area. Red arrow points to approximate location of the SPRR spur and the SPRR main line to the south. Source: Holt, Warren, and C.D. Gibbes; accessed by David Rumsey, 2019.



Figure 8. A 1964 map showing SPRR main line immediately south of the SPRR spur (site is indicated by the blue marker). No spur lines are indicated near the subject parcel. Source: U.S. Geological Survey Topoview, 2019.

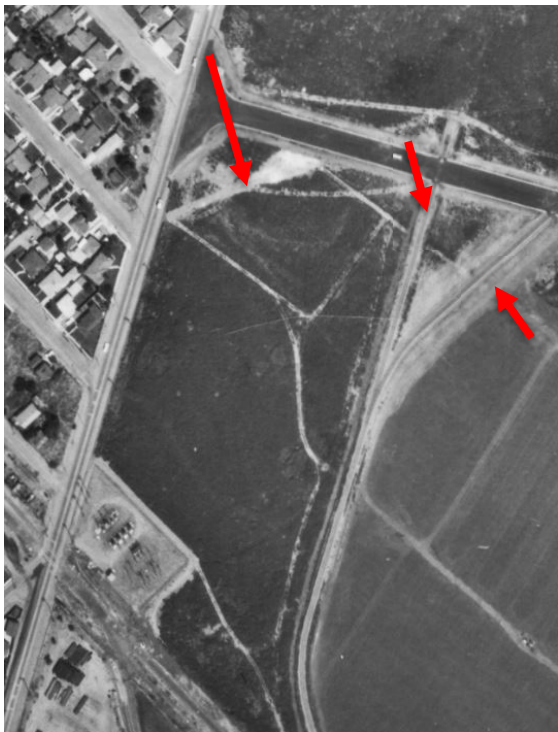


Figure 9. A 1965 aerial image showing the SPRR spur right of way, with adjacent parcels yet to be developed. The 700 Decoto Road site is indicated by the arrow on the far left. Middle arrow points to the Line 1 right of way; far-right arrow points to Line 2 right of way. Decoto Road is to the west, and 7<sup>th</sup> Street is to the north. Source: University of California, Santa Barbara, 2019 ("FrameFinder," Flight CAS\_65\_130, Frame 7-193, April 30, 1965).



Figure 10. Aerial image, circa 1968–1979, of SPRR spur. Left arrow points to Line 1; right arrow points to Line 2 (700 Decoto Road is to the west, and 33955 7<sup>th</sup> Street is to the east). Source: Union City Historical Museum, accessed October 10, 2019.



Figure 11. Undated map showing SPRR main line immediately south of SPRR spur. Arrow points to Line 2, which continues past 7<sup>th</sup> Street, ending just south of Mission Boulevard. Source: Union City Historical Museum, accessed October 10, 2019.



**Appendix 4.3-2**  
**Cultural Resources Records Search Results**



***Appendix 4.3-2 Cultural Resources Records Search Results*** contains confidential information and has been removed.

**Appendix 4.3-3**  
**NAHC and Native American Groups Consultation**



***Appendix 4.3-3 Native American Heritage Commission and Native American Tribal Consultation***  
contains confidential information and has been removed.

**Appendix 4.7**  
**Environmental Data Resources Radius Map Report**





**Union City Station East Project**

Decoto Road and 7th Street

Union City, CA 94587

Inquiry Number: 5661694.2s

May 23, 2019

**The EDR Radius Map™ Report with GeoCheck®**



6 Armstrong Road, 4th floor  
Shelton, CT 06484  
Toll Free: 800.352.0050  
[www.edrnet.com](http://www.edrnet.com)



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***Thank you for your business.***  
 Please contact EDR at 1-800-352-0050  
 with any questions or comments.

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## EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

### TARGET PROPERTY INFORMATION

#### ADDRESS

DECOTO ROAD AND 7TH STREET  
UNION CITY, CA 94587

#### COORDINATES

Latitude (North): 37.5961530 - 37° 35' 46.15"  
Longitude (West): 122.0160040 - 122° 0' 57.61"  
Universal Transverse Mercator: Zone 10  
UTM X (Meters): 586867.1  
UTM Y (Meters): 4161259.2  
Elevation: 66 ft. above sea level

### USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 5641108 NEWARK, CA  
Version Date: 2012  
  
Southeast Map: 5640408 NILES, CA  
Version Date: 2012

### AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from: 20140606  
Source: USDA

MAPPED SITES SUMMARY

Target Property Address:  
 DECOTO ROAD AND 7TH STREET  
 UNION CITY, CA 94587

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.)
<a href="#">A1</a>	AIR LIQUIDE AMER - U	700 DECOTO ROAD	TSCA	Higher	1 ft.
<a href="#">A2</a>	LIQUID AIR CORP	700 DECOTO RD	TSCA	Higher	1 ft.
<a href="#">A3</a>	AIR LIQUIDE LIQUID A	700 DECOTO RD	RGA LUST	Higher	1 ft.
<a href="#">A4</a>	AIR LIQUIDE AMERICA	700 DECOTO RD	HAZNET	Higher	1 ft.
<a href="#">A5</a>	LIQUID AIR CORPORATI	700 DECOTO ROAD	FINDS	Higher	1 ft.
<a href="#">A6</a>	AIRGAS USA, LLC	700 DECOTO RD	CERS HAZ WASTE, CERS	Higher	1 ft.
<a href="#">A7</a>	AIR LIQUIDE AMERICA	700 DECOTO ROAD	EMI, CERS	Higher	1 ft.
<a href="#">A8</a>	AIR LIQUID AMERICA C	700 DECOTO RD	WDS	Higher	1 ft.
<a href="#">A9</a>	UNION CITY FILL PLAN	700 DECOTO ROAD	TSCA	Higher	1 ft.
<a href="#">A10</a>	AIR LIQUIDE AMERICA	700 DECOTO ROAD	RCRA-LQG, FINDS, ECHO	Higher	1 ft.
<a href="#">B11</a>	DAVES TRANSPORTATION	705 BRADFORD ST	RCRA-SQG, FINDS, ECHO	Lower	1 ft.
<a href="#">B12</a>	NOR CAL TRANS	705 BRADFORD ST	HAZNET	Lower	1 ft.
<a href="#">B13</a>	UNION CITY	705 BRADFORD WAY	CIWQS	Lower	1 ft.
<a href="#">B14</a>	DAVE TRANS INC	705 BRADFORD WAY	NPDES, CIWQS	Lower	1 ft.
<a href="#">15</a>	1X ALLPOINTS WAREHOU	34015 7TH ST	HAZNET	Lower	1 ft.
<a href="#">A16</a>	AIR LIQUIDE AMERICA	700 DECOTO RD	TSCA	Higher	1 ft.
<a href="#">A17</a>	AIR LIQUIDE AMERICA	700 DECOTO ROAD	CPS-SLIC, SWEEPS UST, HIST UST, CHMIRS, RCRA...	Higher	1 ft.
<a href="#">A18</a>	LIQUID AIR CORPORATI	700 DECOTO RD	RGA LUST	Higher	1 ft.
<a href="#">A19</a>	AIR LIQUIDE AMERICA	700 DECOTO ROAD	TSCA	Higher	1 ft.
<a href="#">A20</a>	AIR LIQUIDE AMERICA	700 DECOTO RD	HAZNET	Higher	1 ft.
<a href="#">C21</a>	WILD ROSE	33950 SEVENTH ST	CIWQS	Higher	1 ft.
<a href="#">C22</a>	MCKESSON CHEMICAL CO	33950 7TH ST	HIST UST	Higher	1 ft.
<a href="#">C23</a>	FOREMOST MCKESSON CO	33950 7TH ST	SEMS-ARCHIVE, CORRACTS, RCRA-TSDF, RCRA-SQG,...	Higher	1 ft.
<a href="#">C24</a>	OXFORD TIRE RECYCLIN	33950 SEVENTH STREET	RGA LF	Higher	1 ft.
<a href="#">C25</a>	MCKESSON CHEMICAL CO	33950 7TH ST	RGA LUST	Higher	1 ft.
<a href="#">C26</a>	FORMER MCKESSON FACI	33950 SEVENTH	Cortese, ENF, CIWQS, CERS	Higher	1 ft.
<a href="#">C27</a>	MCKESSON CHEMICAL FA	33950 7TH ST	CPS-SLIC	Higher	1 ft.
<a href="#">C28</a>	MCKESSON CHEMICAL CO	33950 7TH ST	RGA LUST	Higher	1 ft.
<a href="#">C29</a>	FORMER MCKESSON FACI	33950 SEVENTH	FINDS, ECHO	Higher	1 ft.
<a href="#">C30</a>	33950 7TH ST CHEM PK	33950 SEVENTH ST	WDS	Higher	1 ft.
<a href="#">D31</a>	RELIANCE AMALCO META	33955 7TH ST	HAZNET	Higher	1 ft.
<a href="#">D32</a>	R & S MANUFACTURING,	33955 7TH ST	CERS HAZ WASTE, CERS	Higher	1 ft.
<a href="#">A33</a>	AIR LIQUIDE LIQUID A	700 DECOTO RD	SPILLS 90	Higher	1 ft.
<a href="#">A34</a>	LIQUID AIR CORPORATI	700 DECOTO RD	HAZNET	Higher	1 ft.
<a href="#">D35</a>	R & S MANUFACTURING	33955 7TH STREET	FINDS, ECHO, EMI, CERS	Higher	1 ft.
<a href="#">C36</a>	MCKESSON CHEMICAL CO	33950 7TH STREET	ENVIROSTOR, CPS-SLIC, DEED, HIST CORTESE, CERS	Higher	1 ft.
<a href="#">C37</a>	MCKESSON HBOC INC	33950 SEVENTH ST	HAZNET	Higher	1 ft.
<a href="#">C38</a>	OXFORD TIRE RECYLING	33950 7TH ST	NPDES, CIWQS	Higher	1 ft.
<a href="#">C39</a>	MCKESSON CORPORATION	33950 SEVENTH ST	ENVIROSTOR, HWP, CERS	Higher	1 ft.

MAPPED SITES SUMMARY

Target Property Address:  
 DECOTO ROAD AND 7TH STREET  
 UNION CITY, CA 94587

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
<a href="#">E40</a>	COLD STORAGE	740 BRADFORD WAY	CERS HAZ WASTE, CERS	Lower	1 ft.
<a href="#">E41</a>	COLD STORAGE MANUFAC	740 BRADFORD WAY	FINDS, ECHO	Lower	1 ft.
<a href="#">B42</a>	DAVE TRANSPORTATION	705 BRADFORD WAY	HAZNET	Lower	1 ft.
<a href="#">E43</a>	UNION CITY PROPERTY	BRADFORD WAY & ZWISS	ENVIROSTOR, VCP	Lower	1 ft.
<a href="#">E44</a>	COLD STORAGE MANUFAC	740 BRADFORD WAY	RCRA NonGen / NLR	Lower	1 ft.
<a href="#">B45</a>	LAIDLAW TRANSIT SERV	705 BRADFORD WAY	HAZNET	Lower	1 ft.
<a href="#">B46</a>	HARTUNG GLASS	700 BRADFORD ST	CERS HAZ WASTE, CERS	Lower	19, 0.004, ESE
<a href="#">B47</a>	HARTUNG GLASS	700 BRADFORD ST	RCRA-SQG, FINDS, ECHO	Lower	41, 0.008, ESE
<a href="#">D48</a>	FUTURE RESIDENTIAL	621 DAGGETT AVE	CPS-SLIC, Alameda County CS, CERS	Lower	143, 0.027, NE
<a href="#">F49</a>	J.E. HIGGINS LUMBER	600 DAGGETT AVE	HIST UST	Lower	166, 0.031, ENE
<a href="#">F50</a>	HIGGINS LUMBER	600 DAGGETT AVENUE	LUST, HIST CORTESE, CERS	Lower	166, 0.031, ENE
<a href="#">G51</a>	WILLIAMS BROS CONSTR	DEPOT ROAD AND DECOT	HIST UST	Higher	208, 0.039, West
<a href="#">G52</a>	WILLIAMS BROS. CONST	DEPOT ROAD & DECOTO	HIST UST	Higher	208, 0.039, West
<a href="#">H53</a>	DECOTO PIPE WRAPPING	1100 DECOTO ROAD	SWEEPS UST, HIST UST	Lower	410, 0.078, SSW
<a href="#">H54</a>	DECOTO PIPE WRAPPING	1100 DECOTO ROAD	CPS-SLIC, DEED, Notify 65, CERS	Lower	410, 0.078, SSW
<a href="#">H55</a>	P G AND E	1100 DECOTO RD	RCRA-SQG, ENVIROSTOR, LUST, CPS-SLIC, VCP, FINDS,...	Lower	410, 0.078, SSW
<a href="#">I56</a>	HP COMMUNICATIONS IN	34151 ZWISSIG WAY	CERS HAZ WASTE, CERS	Lower	426, 0.081, SE
<a href="#">I57</a>	AMBO ENGINEERING CON	34151 ZWISSIG	LUST, HIST CORTESE, CERS	Lower	426, 0.081, SE
<a href="#">I58</a>	AMBO ENGINEERING INC	34151 ZWISSIG WAY	LUST, SWEEPS UST	Lower	426, 0.081, SE
<a href="#">J59</a>	UNIZAK CORPORATION	34135 7TH ST	RCRA-SQG, FINDS, ECHO	Lower	437, 0.083, ESE
<a href="#">J60</a>	NEMAT INTERNATIONAL,	34135 7TH ST	CERS HAZ WASTE, CERS	Lower	437, 0.083, ESE
<a href="#">61</a>	MAGNAFLUX SURFACE CO	301 DAGGETT ST	RCRA NonGen / NLR, FINDS, ECHO	Higher	559, 0.106, NE
<a href="#">K62</a>	T & L MUFFLER	1007 DECOTO RD	CERS HAZ WASTE, CERS	Lower	649, 0.123, SW
<a href="#">K63</a>	T & L MUFFLER & BRAK	1007 DECOTO RD	EDR Hist Auto	Lower	649, 0.123, SW
<a href="#">K64</a>	T & L MUFFLERS & BRA	1007 DECOTO RD	RCRA-SQG, FINDS, ECHO, HAZNET	Lower	649, 0.123, SW
<a href="#">I65</a>	MANUEL C JARDIM, INC	34201 ZWISSIG WAY	SWEEPS UST	Lower	651, 0.123, SE
<a href="#">I66</a>	BRUCE PAINTING INC	34203 ZWISSIG WAY	RCRA-SQG, FINDS, ECHO, HAZNET	Lower	652, 0.123, SE
<a href="#">L67</a>	CONKLIN & CONKLIN, I	34201 7TH ST	CERS HAZ WASTE, CERS	Lower	715, 0.135, ESE
<a href="#">L68</a>	CASCADE STEEL COMPAN	34200 7TH ST	LUST, HIST CORTESE, CERS	Lower	743, 0.141, ESE
<a href="#">69</a>	PG&E TRANSMISSION RI	1 ZWISSIG WAY	CPS-SLIC, DEED, CERS	Lower	816, 0.155, SE
<a href="#">M70</a>	SHEEDY HOIST	34301 7TH ST	CERS HAZ WASTE, HAZNET, CERS	Lower	1033, 0.196, ESE
<a href="#">M71</a>	SHEEDY HOIST	34301 7TH ST	RCRA NonGen / NLR	Lower	1033, 0.196, ESE
<a href="#">N72</a>	ESCUTIA'S AUTO	967 H ST	CERS HAZ WASTE, CERS	Higher	1168, 0.221, WNW
<a href="#">N73</a>	ESCUTIA'S AUTO REPAI	967 H ST	RCRA NonGen / NLR	Higher	1168, 0.221, WNW
<a href="#">N74</a>	SCHANER LIBERTY STAT	967 H ST	SWEEPS UST, HIST UST	Higher	1168, 0.221, WNW
<a href="#">N75</a>	LIBERTY STATION (ESC	967 H STREET	LUST	Higher	1168, 0.221, WNW
<a href="#">N76</a>	LIBERTY STATION ESCU	967 H	LUST, HIST CORTESE, CERS	Higher	1168, 0.221, WNW
<a href="#">O77</a>	C P INORGANICS	34400 ZWISSIG WAY	CHMIRS, EMI, ICE, HWP	Lower	1418, 0.269, SE
<a href="#">O78</a>	PHIBRO-TECH, INC	34400 ZWISSIG WAY	ENVIROSTOR, CERS	Lower	1418, 0.269, SE

MAPPED SITES SUMMARY

Target Property Address:  
 DECOTO ROAD AND 7TH STREET  
 UNION CITY, CA 94587

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
<a href="#">O79</a>	PHIBRO-TECH, INC.	34400 ZWISSIG WAY	CORRACTS, RCRA-SQG, 2020 COR ACTION, ECHO	Lower	1418, 0.269, SE
<a href="#">80</a>	ROGER'S GARAGE	33663 MISSION	LUST, HIST CORTESE	Higher	1488, 0.282, North
<a href="#">P81</a>	B & K DELIVERY SERVI	33715 11TH ST	LUST, HIST CORTESE, CERS	Lower	1632, 0.309, West
<a href="#">P82</a>	B & K DELIVERY SERVI	33715 11TH ST	LUST	Lower	1632, 0.309, West
<a href="#">83</a>	UNION SQUARE CENTER	14-44 UNION SQUARE	ENVIROSTOR, CPS-SLIC, VCP, CERS	Lower	1738, 0.329, South
<a href="#">84</a>	ALAMEDA COUNTY MOSQU	33611 10TH ST	CPS-SLIC, Alameda County CS, HIST UST, CERS	Higher	1835, 0.348, WNW
<a href="#">85</a>	PENGO CORPORATION	710 ZWISSIG WAY	CPS-SLIC, FINDS, EMI, CERS	Lower	1906, 0.361, SE
<a href="#">Q86</a>	UNION CITY TEEN CENT	33623 MISSION BOULEV	LUST	Higher	2036, 0.386, North
<a href="#">Q87</a>	UNION CITY TEEN CENT	33623 MISSION BOULEV	LUST, HIST CORTESE, CERS	Higher	2036, 0.386, North
<a href="#">R88</a>	MEEKS CAMPERS	33509 MISSION BOULEV	LUST, HIST CORTESE, CERS	Higher	2368, 0.448, NNW
<a href="#">S89</a>	CATELLUS - UNION CIT	MISSION AT 7TH ST	HIST CORTESE	Lower	2380, 0.451, ESE
<a href="#">R90</a>	PACIFIC BELL	118 "E" STREET	RCRA-SQG, LUST, SWEEPS UST, HIST UST, HIST...	Higher	2387, 0.452, NNW
<a href="#">S91</a>	CATELLUS DECOTO ROAD	34701 MISSION BOULVE	CPS-SLIC, CERS	Lower	2555, 0.484, ESE
<a href="#">T92</a>	UNION CITY INDUSTRIA	SW CORNER OF RAILROA	ENVIROSTOR, VCP	Higher	2596, 0.492, WNW
<a href="#">T93</a>	STM INC	33395 RAILROAD AVE	RCRA-SQG, CPS-SLIC, FINDS, ECHO, CERS	Higher	2619, 0.496, WNW
<a href="#">S94</a>	CATELLUS - UNION CIT	MISSION AT 7TH STREE	ENVIROSTOR	Lower	2654, 0.503, ESE
<a href="#">U95</a>	GENERAL ELECTRIC COM	34863 MISSION BLVD	SEMS-ARCHIVE, CORRACTS, RCRA-TSDF, RCRA NonGen /..	Lower	3580, 0.678, ESE
<a href="#">U96</a>	PACIFIC STATES STEEL	34863 MISSION BL	ENVIROSTOR, SWF/LF, HWP, CERS	Lower	3580, 0.678, ESE
<a href="#">97</a>	PACIFIC STATES STEEL	35124 ALVARADO-NILES	RESPONSE, ENVIROSTOR, HIST Cal-Sites, DEED, CA...	Lower	3664, 0.694, SSE
<a href="#">V98</a>	KRAFTILE	800 KRAFTILE ROAD	CPS-SLIC, HIST Cal-Sites, EMI, CERS	Lower	4335, 0.821, SSE
<a href="#">V99</a>	KRAFTILE	800 KRAFTILE ROAD	RESPONSE, ENVIROSTOR, HAZNET	Lower	4353, 0.824, SSE
<a href="#">100</a>	MET LABORATORIES	33439 WESTERN AVE	CERS HAZ WASTE, HWP, CERS	Lower	4559, 0.863, West
<a href="#">101</a>	AMCOR PACKAGING DIST	33463 WESTERN AVE	RCRA-SQG, ENVIROSTOR, UST, SWEEPS UST, FINDS,...	Lower	4753, 0.900, West
<a href="#">102</a>	STAR PAC INC	1205 ATLANTIC ST	CPS-SLIC, NPDES, Notify 65, CIWQS	Lower	4894, 0.927, WNW



# EXECUTIVE SUMMARY

## TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

## DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

## STANDARD ENVIRONMENTAL RECORDS

### ***Federal NPL site list***

NPL..... National Priority List  
Proposed NPL..... Proposed National Priority List Sites  
NPL LIENS..... Federal Superfund Liens

### ***Federal Delisted NPL site list***

Delisted NPL..... National Priority List Deletions

### ***Federal CERCLIS list***

FEDERAL FACILITY..... Federal Facility Site Information listing  
SEMS..... Superfund Enterprise Management System

### ***Federal RCRA generators list***

RCRA-CESQG..... RCRA - Conditionally Exempt Small Quantity Generator

### ***Federal institutional controls / engineering controls registries***

LUCIS..... Land Use Control Information System  
US ENG CONTROLS..... Engineering Controls Sites List  
US INST CONTROL..... Sites with Institutional Controls

### ***Federal ERNS list***

ERNS..... Emergency Response Notification System

### ***State and tribal landfill and/or solid waste disposal site lists***

SWF/LF..... Solid Waste Information System

### ***State and tribal leaking storage tank lists***

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

### ***State and tribal registered storage tank lists***

FEMA UST..... Underground Storage Tank Listing

## EXECUTIVE SUMMARY

UST..... Active UST Facilities  
AST..... Aboveground Petroleum Storage Tank Facilities  
INDIAN UST..... Underground Storage Tanks on Indian Land

### **State and tribal voluntary cleanup sites**

INDIAN VCP..... Voluntary Cleanup Priority Listing

### **State and tribal Brownfields sites**

BROWNFIELDS..... Considered Brownfields Sites Listing

### **ADDITIONAL ENVIRONMENTAL RECORDS**

#### **Local Brownfield lists**

US BROWNFIELDS..... A Listing of Brownfields Sites

#### **Local Lists of Landfill / Solid Waste Disposal Sites**

WMUDS/SWAT..... Waste Management Unit Database  
SWRCY..... Recycler Database  
HAULERS..... Registered Waste Tire Haulers Listing  
INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands  
ODI..... Open Dump Inventory  
DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations  
IHS OPEN DUMPS..... Open Dumps on Indian Land

#### **Local Lists of Hazardous waste / Contaminated Sites**

US HIST CDL..... Delisted National Clandestine Laboratory Register  
SCH..... School Property Evaluation Program  
CDL..... Clandestine Drug Labs  
Toxic Pits..... Toxic Pits Cleanup Act Sites  
US CDL..... National Clandestine Laboratory Register  
PFAS..... PFAS Contamination Site Location Listing

#### **Local Lists of Registered Storage Tanks**

CA FID UST..... Facility Inventory Database  
CERS TANKS..... California Environmental Reporting System (CERS) Tanks

#### **Local Land Records**

LIENS..... Environmental Liens Listing  
LIENS 2..... CERCLA Lien Information

#### **Records of Emergency Release Reports**

HMIRS..... Hazardous Materials Information Reporting System  
LDS..... Land Disposal Sites Listing  
MCS..... Military Cleanup Sites Listing

#### **Other Ascertainable Records**

FUDS..... Formerly Used Defense Sites

## EXECUTIVE SUMMARY

DOD.....	Department of Defense Sites
SCRD DRYCLEANERS.....	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR.....	Financial Assurance Information
EPA WATCH LIST.....	EPA WATCH LIST
2020 COR ACTION.....	2020 Corrective Action Program List
TRIS.....	Toxic Chemical Release Inventory System
SSTS.....	Section 7 Tracking Systems
ROD.....	Records Of Decision
RMP.....	Risk Management Plans
RAATS.....	RCRA Administrative Action Tracking System
PRP.....	Potentially Responsible Parties
PADS.....	PCB Activity Database System
ICIS.....	Integrated Compliance Information System
FTTS.....	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS.....	Material Licensing Tracking System
COAL ASH DOE.....	Steam-Electric Plant Operation Data
COAL ASH EPA.....	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER.....	PCB Transformer Registration Database
RADINFO.....	Radiation Information Database
HIST FTTS.....	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS.....	Incident and Accident Data
CONSENT.....	Superfund (CERCLA) Consent Decrees
INDIAN RESERV.....	Indian Reservations
FUSRAP.....	Formerly Utilized Sites Remedial Action Program
UMTRA.....	Uranium Mill Tailings Sites
LEAD SMELTERS.....	Lead Smelter Sites
US AIRS.....	Aerometric Information Retrieval System Facility Subsystem
US MINES.....	Mines Master Index File
ABANDONED MINES.....	Abandoned Mines
UXO.....	Unexploded Ordnance Sites
DOCKET HWC.....	Hazardous Waste Compliance Docket Listing
FUELS PROGRAM.....	EPA Fuels Program Registered Listing
CUPA Listings.....	CUPA Resources List
DRYCLEANERS.....	Cleaner Facilities
Financial Assurance.....	Financial Assurance Information Listing
ICE.....	ICE
HWT.....	Registered Hazardous Waste Transporter Database
MINES.....	Mines Site Location Listing
MWMP.....	Medical Waste Management Program Listing
PEST LIC.....	Pesticide Regulation Licenses Listing
PROC.....	Certified Processors Database
UIC.....	UIC Listing
UIC GEO.....	UIC GEO (GEOTRACKER)
WASTEWATER PITS.....	Oil Wastewater Pits Listing
MILITARY PRIV SITES.....	MILITARY PRIV SITES (GEOTRACKER)
PROJECT.....	PROJECT (GEOTRACKER)
WDR.....	Waste Discharge Requirements Listing
WIP.....	Well Investigation Program Case List
NON-CASE INFO.....	NON-CASE INFO (GEOTRACKER)
OTHER OIL GAS.....	OTHER OIL & GAS (GEOTRACKER)
PROD WATER PONDS.....	PROD WATER PONDS (GEOTRACKER)
SAMPLING POINT.....	SAMPLING POINT (GEOTRACKER)
WELL STIM PROJ.....	Well Stimulation Project (GEOTRACKER)

### **EDR HIGH RISK HISTORICAL RECORDS**

#### ***EDR Exclusive Records***

EDR MGP..... EDR Proprietary Manufactured Gas Plants

## EXECUTIVE SUMMARY

EDR Hist Cleaner..... EDR Exclusive Historical Cleaners

### SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

### STANDARD ENVIRONMENTAL RECORDS

#### ***Federal CERCLIS NFRAP site list***

SEMS-ARCHIVE: SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be potential NPL site.

A review of the SEMS-ARCHIVE list, as provided by EDR, and dated 03/11/2019 has revealed that there is 1 SEMS-ARCHIVE site within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b><i>FOREMOST MCKESSON CO</i></b> Site ID: 0901573 EPA Id: CAD073934903	<b><i>33950 7TH ST</i></b>	<b><i>0 - 1/8 (0.000 mi.)</i></b>	<b><i>C23</i></b>	<b><i>57</i></b>

#### ***Federal RCRA CORRACTS facilities list***

CORRACTS: CORRACTS is a list of handlers with RCRA Corrective Action Activity. This report shows which nationally-defined corrective action core events have occurred for every handler that has had corrective action activity.

A review of the CORRACTS list, as provided by EDR, and dated 03/25/2019 has revealed that there are 3 CORRACTS sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b><i>FOREMOST MCKESSON CO</i></b>	<b><i>33950 7TH ST</i></b>	<b><i>0 - 1/8 (0.000 mi.)</i></b>	<b><i>C23</i></b>	<b><i>57</i></b>

## EXECUTIVE SUMMARY

EPA ID:: CAD073934903

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>PHIBRO-TECH, INC.</b> EPA ID:: CAD981160948	<b>34400 ZWISSIG WAY</b>	<b>SE 1/4 - 1/2 (0.269 mi.)</b>	<b>O79</b>	<b>264</b>
<b>GENERAL ELECTRIC COM</b> EPA ID:: CAT080012628	<b>34863 MISSION BLVD</b>	<b>ESE 1/2 - 1 (0.678 mi.)</b>	<b>U95</b>	<b>316</b>

### ***Federal RCRA non-CORRACTS TSD facilities list***

RCRA-TSDF: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

A review of the RCRA-TSDF list, as provided by EDR, and dated 03/25/2019 has revealed that there is 1 RCRA-TSDF site within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>FOREMOST MCKESSON CO</b> EPA ID:: CAD073934903	<b>33950 7TH ST</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>C23</b>	<b>57</b>

### ***Federal RCRA generators list***

RCRA-LQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

A review of the RCRA-LQG list, as provided by EDR, and dated 03/25/2019 has revealed that there is 1 RCRA-LQG site within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>AIR LIQUIDE AMERICA</b> EPA ID:: CAL000345224	<b>700 DECOTO ROAD</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>A10</b>	<b>22</b>

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 03/25/2019 has revealed that there are 7

## EXECUTIVE SUMMARY

RCRA-SQG sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>FOREMOST MCKESSON CO</b> EPA ID:: CAD073934903	<b>33950 7TH ST</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>C23</b>	<b>57</b>

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>DAVES TRANSPORTATION</b> EPA ID:: CAD983639600	<b>705 BRADFORD ST</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>B11</b>	<b>25</b>
<b>HARTUNG GLASS</b> EPA ID:: CAD076525468	<b>700 BRADFORD ST</b>	<b>ESE 0 - 1/8 (0.008 mi.)</b>	<b>B47</b>	<b>162</b>
<b>P G AND E</b> EPA ID:: CAT080011497	<b>1100 DECOTO RD</b>	<b>SSW 0 - 1/8 (0.078 mi.)</b>	<b>H55</b>	<b>171</b>
<b>UNIZAK CORPORATION</b> EPA ID:: CAD981463367	<b>34135 7TH ST</b>	<b>ESE 0 - 1/8 (0.083 mi.)</b>	<b>J59</b>	<b>192</b>
<b>T &amp; L MUFFLERS &amp; BRA</b> EPA ID:: CAD981443492	<b>1007 DECOTO RD</b>	<b>SW 0 - 1/8 (0.123 mi.)</b>	<b>K64</b>	<b>205</b>
<b>BRUCE PAINTING INC</b> EPA ID:: CAD982344988	<b>34203 ZWISSIG WAY</b>	<b>SE 0 - 1/8 (0.123 mi.)</b>	<b>I66</b>	<b>209</b>

### **State- and tribal - equivalent NPL**

RESPONSE: Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

A review of the RESPONSE list, as provided by EDR, has revealed that there are 2 RESPONSE sites within approximately 1 mile of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>PACIFIC STATES STEEL</b> AWP Facility Id: 01330031 Status: Certified / Operation & Maintenance Status: Certified Facility Id: 1330031 Facility Id: 1330042	<b>35124 ALVARADO-NILES</b>	<b>SSE 1/2 - 1 (0.694 mi.)</b>	<b>97</b>	<b>326</b>
<b>KRAFTILE</b> Database: RESPONSE, Date of Government Version: 01/28/2019 Status: Certified Facility Id: 1320029	<b>800 KRAFTILE ROAD</b>	<b>SSE 1/2 - 1 (0.824 mi.)</b>	<b>V99</b>	<b>362</b>

### **State- and tribal - equivalent CERCLIS**

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal

## EXECUTIVE SUMMARY

Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 01/28/2019 has revealed that there are 12 ENVIROSTOR sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>MCKESSON CHEMICAL CO</b> Facility Id: 1280071 Status: Refer: RWQCB	<b>33950 7TH STREET</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>C36</b>	<b>107</b>
<b>MCKESSON CORPORATION</b> Facility Id: 80001666 Status: Refer: RWQCB	<b>33950 SEVENTH ST</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>C39</b>	<b>114</b>
<b>UNION CITY INDUSTRIA</b> Facility Id: 1750037 Status: No Action Required	<b>SW CORNER OF RAILROA</b>	<b>WNW 1/4 - 1/2 (0.492 mi.)</b>	<b>T92</b>	<b>310</b>
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>UNION CITY PROPERTY</b> Facility Id: 60002290 Status: Active	<b>BRADFORD WAY &amp; ZWISS</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>E43</b>	<b>136</b>
<b>P G AND E</b> Facility Id: 1490019 Status: Certified	<b>1100 DECOTO RD</b>	<b>SSW 0 - 1/8 (0.078 mi.)</b>	<b>H55</b>	<b>171</b>
<b>PHIBRO-TECH, INC</b> Facility Id: 80001764 Status: No Action Required	<b>34400 ZWISSIG WAY</b>	<b>SE 1/4 - 1/2 (0.269 mi.)</b>	<b>O78</b>	<b>257</b>
<b>UNION SQUARE CENTER</b> Facility Id: 70000158 Status: No Further Action	<b>14-44 UNION SQUARE</b>	<b>S 1/4 - 1/2 (0.329 mi.)</b>	<b>83</b>	<b>288</b>
<b>CATELLUS - UNION CIT</b> Facility Id: 1010003 Status: Refer: RWQCB	<b>MISSION AT 7TH STREE</b>	<b>ESE 1/2 - 1 (0.503 mi.)</b>	<b>S94</b>	<b>315</b>
<b>PACIFIC STATES STEEL</b> Facility Id: 80001841 Status: Refer: SMBRP	<b>34863 MISSION BL</b>	<b>ESE 1/2 - 1 (0.678 mi.)</b>	<b>U96</b>	<b>322</b>
<b>PACIFIC STATES STEEL</b> Facility Id: 1330042 Facility Id: 1330031 Status: Certified Status: Certified / Operation & Maintenance	<b>35124 ALVARADO-NILES</b>	<b>SSE 1/2 - 1 (0.694 mi.)</b>	<b>97</b>	<b>326</b>
<b>KRAFTILE</b> Facility Id: 1320029 Status: Certified	<b>800 KRAFTILE ROAD</b>	<b>SSE 1/2 - 1 (0.824 mi.)</b>	<b>V99</b>	<b>362</b>
<b>AMCOR PACKAGING DIST</b>	<b>33463 WESTERN AVE</b>	<b>W 1/2 - 1 (0.900 mi.)</b>	<b>101</b>	<b>377</b>

## EXECUTIVE SUMMARY

Facility Id: 71003035  
 Status: Inactive - Needs Evaluation

### **State and tribal leaking storage tank lists**

LUST: Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

A review of the LUST list, as provided by EDR, has revealed that there are 14 LUST sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
LIBERTY STATION (ESC Database: LUST REG 2, Date of Government Version: 09/30/2004 Facility Id: 01-0904 Facility Status: Remediation Plan	967 H STREET	WNW 1/8 - 1/4 (0.221 mi.)	N75	246
<b>LIBERTY STATION ESCU</b> Database: LUST, Date of Government Version: 12/10/2018 Status: Open - Remediation Global Id: T0600100831	<b>967 H</b>	<b>WNW 1/8 - 1/4 (0.221 mi.)</b>	<b>N76</b>	<b>246</b>
<b>ROGER'S GARAGE</b> Database: LUST REG 2, Date of Government Version: 09/30/2004 Database: LUST, Date of Government Version: 12/10/2018 Status: Completed - Case Closed Facility Id: 01-2201 Facility Status: Case Closed Global Id: T0600102021 date9: 6/9/1998	<b>33663 MISSION</b>	<b>N 1/4 - 1/2 (0.282 mi.)</b>	<b>80</b>	<b>284</b>
UNION CITY TEEN CENT Database: LUST REG 2, Date of Government Version: 09/30/2004 Facility Id: 01-1536 Facility Status: Pollution Characterization	33623 MISSION BOULEV	N 1/4 - 1/2 (0.386 mi.)	Q86	299
<b>UNION CITY TEEN CENT</b> Database: LUST, Date of Government Version: 12/10/2018 Status: Completed - Case Closed Global Id: T0600101419	<b>33623 MISSION BOULEV</b>	<b>N 1/4 - 1/2 (0.386 mi.)</b>	<b>Q87</b>	<b>299</b>
<b>MEEKS CAMPERS</b> Database: LUST REG 2, Date of Government Version: 09/30/2004 Database: LUST, Date of Government Version: 12/10/2018 Status: Completed - Case Closed Facility Id: 01-2028 Facility Status: Case Closed Global Id: T0600101873 date9: 3/7/1995	<b>33509 MISSION BOULEV</b>	<b>NNW 1/4 - 1/2 (0.448 mi.)</b>	<b>R88</b>	<b>302</b>
<b>PACIFIC BELL</b> Database: LUST REG 2, Date of Government Version: 09/30/2004 Database: LUST, Date of Government Version: 12/10/2018 Status: Completed - Case Closed Facility Id: 01-1109	<b>118 "E" STREET</b>	<b>NNW 1/4 - 1/2 (0.452 mi.)</b>	<b>R90</b>	<b>305</b>



## EXECUTIVE SUMMARY

Facility Status: Case Closed  
 Global Id: T0600101020  
 date9: 10/17/1995

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>HIGGINS LUMBER</b> Database: LUST REG 2, Date of Government Version: 09/30/2004 Database: LUST, Date of Government Version: 12/10/2018 Status: Completed - Case Closed Facility Id: 01-0765 Facility Status: Leak being confirmed Global Id: T0600100705	<b>600 DAGGETT AVENUE</b>	<b>ENE 0 - 1/8 (0.031 mi.)</b>	<b>F50</b>	<b>166</b>
<b>P G AND E</b> Database: LUST REG 2, Date of Government Version: 09/30/2004 Database: LUST, Date of Government Version: 12/10/2018 Status: Completed - Case Closed Facility Id: 01-1167 Facility Status: Case Closed Global Id: T0600101076 date9: 4/19/1993	<b>1100 DECOTO RD</b>	<b>SSW 0 - 1/8 (0.078 mi.)</b>	<b>H55</b>	<b>171</b>
<b>AMBO ENGINEERING CON</b> Database: LUST, Date of Government Version: 12/10/2018 Status: Completed - Case Closed Global Id: T0600101996	<b>34151 ZWISSIG</b>	<b>SE 0 - 1/8 (0.081 mi.)</b>	<b>I57</b>	<b>189</b>
<b>AMBO ENGINEERING INC</b> Database: LUST REG 2, Date of Government Version: 09/30/2004 Facility Id: 01-2172 Facility Status: Case Closed date9: 7/26/1996	<b>34151 ZWISSIG WAY</b>	<b>SE 0 - 1/8 (0.081 mi.)</b>	<b>I58</b>	<b>191</b>
<b>CASCADE STEEL COMPAN</b> Database: LUST REG 2, Date of Government Version: 09/30/2004 Database: LUST, Date of Government Version: 12/10/2018 Status: Completed - Case Closed Facility Id: 01-0284 Facility Status: Case Closed Global Id: T0600100264 date9: 5/6/1991	<b>34200 7TH ST</b>	<b>ESE 1/8 - 1/4 (0.141 mi.)</b>	<b>L68</b>	<b>219</b>
<b>B &amp; K DELIVERY SERVI</b> Database: LUST, Date of Government Version: 12/10/2018 Status: Completed - Case Closed Global Id: T0600100134	<b>33715 11TH ST</b>	<b>W 1/4 - 1/2 (0.309 mi.)</b>	<b>P81</b>	<b>286</b>
<b>B &amp; K DELIVERY SERVI</b> Database: LUST REG 2, Date of Government Version: 09/30/2004 Facility Id: 01-0145 Facility Status: Case Closed date9: 1/18/2001	<b>33715 11TH ST</b>	<b>W 1/4 - 1/2 (0.309 mi.)</b>	<b>P82</b>	<b>288</b>

## EXECUTIVE SUMMARY

CPS-SLIC: Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

A review of the CPS-SLIC list, as provided by EDR, has revealed that there are 12 CPS-SLIC sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>AIR LIQUIDE AMERICA</b> Database: CPS-SLIC, Date of Government Version: 12/10/2018 Database: SLIC REG 2, Date of Government Version: 09/30/2004 Global Id: T0600191503 Facility Id: 01S0148 Facility Status: Open - Remediation	<b>700 DECOTO ROAD</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>A17</b>	<b>40</b>
MCKESSON CHEMICAL FA Database: SLIC REG 2, Date of Government Version: 09/30/2004 Facility Id: 01S0014	33950 7TH ST	0 - 1/8 (0.000 mi.)	C27	83
<b>MCKESSON CHEMICAL CO</b> Database: CPS-SLIC, Date of Government Version: 12/10/2018 Global Id: SL18290711 Facility Status: Open - Remediation	<b>33950 7TH STREET</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>C36</b>	<b>107</b>
<b>ALAMEDA COUNTY MOSQU</b> Database: CPS-SLIC, Date of Government Version: 12/10/2018 Database: SLIC REG 2, Date of Government Version: 09/30/2004 Global Id: SL0600137794 Global Id: T10000000698 Facility Status: Completed - Case Closed	<b>33611 10TH ST</b>	<b>WNW 1/4 - 1/2 (0.348 mi.)</b>	<b>84</b>	<b>293</b>
<b>STM INC</b> Database: CPS-SLIC, Date of Government Version: 12/10/2018 Database: SLIC REG 2, Date of Government Version: 09/30/2004 Global Id: T0600191472 Facility Id: 01S0039 Facility Status: Open - Site Assessment	<b>33395 RAILROAD AVE</b>	<b>WNW 1/4 - 1/2 (0.496 mi.)</b>	<b>T93</b>	<b>312</b>
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>FUTURE RESIDENTIAL</b> Database: CPS-SLIC, Date of Government Version: 12/10/2018 Database: SLIC REG 2, Date of Government Version: 09/30/2004 Global Id: SL0600135934 Facility Status: Completed - Case Closed	<b>621 DAGGETT AVE</b>	<b>NE 0 - 1/8 (0.027 mi.)</b>	<b>D48</b>	<b>164</b>
<b>DECOTO PIPE WRAPPING</b> Database: SLIC REG 2, Date of Government Version: 09/30/2004	<b>1100 DECOTO ROAD</b>	<b>SSW 0 - 1/8 (0.078 mi.)</b>	<b>H54</b>	<b>170</b>
<b>P G AND E</b> Database: CPS-SLIC, Date of Government Version: 12/10/2018 Global Id: T10000009147 Global Id: T10000000701 Facility Status: Open - Inactive Facility Status: Completed - Case Closed	<b>1100 DECOTO RD</b>	<b>SSW 0 - 1/8 (0.078 mi.)</b>	<b>H55</b>	<b>171</b>
<b>PG&amp;E TRANSMISSION RI</b> Database: CPS-SLIC, Date of Government Version: 12/10/2018 Global Id: T10000004691	<b>1 ZWISSIG WAY</b>	<b>SE 1/8 - 1/4 (0.155 mi.)</b>	<b>69</b>	<b>221</b>

## EXECUTIVE SUMMARY

Facility Status: Completed - Case Closed

**UNION SQUARE CENTER**                      **14-44 UNION SQUARE**                      **S 1/4 - 1/2 (0.329 mi.)**                      **83**                      **288**

Database: CPS-SLIC, Date of Government Version: 12/10/2018

Global Id: SL0600125612

Facility Status: Completed - Case Closed

**PENGO CORPORATION**                      **710 ZWISSIG WAY**                      **SE 1/4 - 1/2 (0.361 mi.)**                      **85**                      **295**

Database: CPS-SLIC, Date of Government Version: 12/10/2018

Database: SLIC REG 2, Date of Government Version: 09/30/2004

Global Id: SL0600126187

Facility Status: Completed - Case Closed

**CATELLUS DECOTO ROAD**                      **34701 MISSION BOULVE**                      **ESE 1/4 - 1/2 (0.484 mi.)**                      **S91**                      **309**

Database: CPS-SLIC, Date of Government Version: 12/10/2018

Database: SLIC REG 2, Date of Government Version: 09/30/2004

Global Id: SL0600159748

Facility Status: Completed - Case Closed

Alameda County CS: A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

A review of the Alameda County CS list, as provided by EDR, and dated 01/09/2019 has revealed that there are 2 Alameda County CS sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>ALAMEDA COUNTY MOSQU</b> Record Id: RO0002719 Status: Case Closed	<b>33611 10TH ST</b>	<b>WNW 1/4 - 1/2 (0.348 mi.)</b>	<b>84</b>	<b>293</b>

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>FUTURE RESIDENTIAL</b> Record Id: RO0002775	<b>621 DAGGETT AVE</b>	<b>NE 0 - 1/8 (0.027 mi.)</b>	<b>D48</b>	<b>164</b>

### **State and tribal voluntary cleanup sites**

VCP: Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

A review of the VCP list, as provided by EDR, and dated 01/28/2019 has revealed that there are 4 VCP sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>UNION CITY INDUSTRIA</b> Status: No Action Required Facility Id: 1750037	<b>SW CORNER OF RAILROA</b>	<b>WNW 1/4 - 1/2 (0.492 mi.)</b>	<b>T92</b>	<b>310</b>

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>UNION CITY PROPERTY</b>	<b>BRADFORD WAY &amp; ZWISS</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>E43</b>	<b>136</b>

# EXECUTIVE SUMMARY

Status: Active  
Facility Id: 60002290

<b>P G AND E</b>	<b>1100 DECOTO RD</b>	<b>SSW 0 - 1/8 (0.078 mi.)</b>	<b>H55</b>	<b>171</b>
Status: Certified Facility Id: 1490019				
<b>UNION SQUARE CENTER</b>	<b>14-44 UNION SQUARE</b>	<b>S 1/4 - 1/2 (0.329 mi.)</b>	<b>83</b>	<b>288</b>
Status: No Further Action Facility Id: 70000158				

## ADDITIONAL ENVIRONMENTAL RECORDS

### Local Lists of Hazardous waste / Contaminated Sites

HIST Cal-Sites: Formerly known as ASPIS, this database contains both known and potential hazardous substance sites. The source is the California Department of Toxic Substance Control. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

A review of the HIST Cal-Sites list, as provided by EDR, and dated 08/08/2005 has revealed that there are 2 HIST Cal-Sites sites within approximately 1 mile of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
PACIFIC STATES STEEL	35124 ALVARADO-NILES	SSE 1/2 - 1 (0.694 mi.)	97	326
KRAFTILE	800 KRAFTILE ROAD	SSE 1/2 - 1 (0.821 mi.)	V98	355

CERS HAZ WASTE: List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

A review of the CERS HAZ WASTE list, as provided by EDR, and dated 04/09/2019 has revealed that there are 10 CERS HAZ WASTE sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
AIRGAS USA, LLC	700 DECOTO RD	0 - 1/8 (0.000 mi.)	A6	11
R & S MANUFACTURING,	33955 7TH ST	0 - 1/8 (0.000 mi.)	D32	87
ESCUTIA?S AUTO	967 H ST	WNW 1/8 - 1/4 (0.221 mi.)	N72	236
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
COLD STORAGE	740 BRADFORD WAY	0 - 1/8 (0.000 mi.)	E40	118
HARTUNG GLASS	700 BRADFORD ST	ESE 0 - 1/8 (0.004 mi.)	B46	144
HP COMMUNICATIONS IN	34151 ZWISSIG WAY	SE 0 - 1/8 (0.081 mi.)	I56	178
NEMAT INTERNATIONAL,	34135 7TH ST	ESE 0 - 1/8 (0.083 mi.)	J60	193
T & L MUFFLER	1007 DECOTO RD	SW 0 - 1/8 (0.123 mi.)	K62	199
CONKLIN & CONKLIN, I	34201 7TH ST	ESE 1/8 - 1/4 (0.135 mi.)	L67	212
SHEEDY HOIST	34301 7TH ST	ESE 1/8 - 1/4 (0.196 mi.)	M70	222

## EXECUTIVE SUMMARY

### **Local Lists of Registered Storage Tanks**

SWEEPS UST: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there are 5 SWEEPS UST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>AIR LIQUIDE AMERICA</b> Status: A Tank Status: A Comp Number: 8561	<b>700 DECOTO ROAD</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>A17</b>	<b>40</b>
<b>SCHANER LIBERTY STAT</b> Status: A Tank Status: A Comp Number: 51797	<b>967 H ST</b>	<b>WNW 1/8 - 1/4 (0.221 mi.)</b>	<b>N74</b>	<b>244</b>

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>DECOTO PIPE WRAPPING</b> Comp Number: 24802	<b>1100 DECOTO ROAD</b>	<b>SSW 0 - 1/8 (0.078 mi.)</b>	<b>H53</b>	<b>169</b>
<b>AMBO ENGINEERING INC</b> Comp Number: 320	<b>34151 ZWISSIG WAY</b>	<b>SE 0 - 1/8 (0.081 mi.)</b>	<b>I58</b>	<b>191</b>
<b>MANUEL C JARDIM, INC</b> Status: A Tank Status: A Comp Number: 100017	<b>34201 ZWISSIG WAY</b>	<b>SE 0 - 1/8 (0.123 mi.)</b>	<b>I65</b>	<b>208</b>

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 7 HIST UST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>AIR LIQUIDE AMERICA</b> Facility Id: 00000008561	<b>700 DECOTO ROAD</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>A17</b>	<b>40</b>
<b>MCKESSON CHEMICAL CO</b> Facility Id: 00000014532	<b>33950 7TH ST</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>C22</b>	<b>55</b>
<b>WILLIAMS BROS CONSTR</b> <b>WILLIAMS BROS. CONST</b> Facility Id: 00000009594	<b>DEPOT ROAD AND DECOT</b> <b>DEPOT ROAD &amp; DECOTO</b>	<b>W 0 - 1/8 (0.039 mi.)</b> <b>W 0 - 1/8 (0.039 mi.)</b>	<b>G51</b> <b>G52</b>	<b>168</b> <b>169</b>
<b>SCHANER LIBERTY STAT</b> Facility Id: 00000051797	<b>967 H ST</b>	<b>WNW 1/8 - 1/4 (0.221 mi.)</b>	<b>N74</b>	<b>244</b>
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>J.E. HIGGINS LUMBER</b>	<b>600 DAGGETT AVE</b>	<b>ENE 0 - 1/8 (0.031 mi.)</b>	<b>F49</b>	<b>165</b>

## EXECUTIVE SUMMARY

Facility Id: 00000010297

**DECOTO PIPE WRAPPING**

**1100 DECOTO ROAD**

**SSW 0 - 1/8 (0.078 mi.)**

**H53**

**169**

Facility Id: 00000024802

### Local Land Records

DEED: The use of recorded land use restrictions is one of the methods the DTSC uses to protect the public from unsafe exposures to hazardous substances and wastes .

A review of the DEED list, as provided by EDR, and dated 03/04/2019 has revealed that there are 3 DEED sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>MCKESSON CHEMICAL CO</b> Status: OPEN - REMEDIATION Envirostor ID: SL18290711	<b>33950 7TH STREET</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>C36</b>	<b>107</b>

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>DECOTO PIPE WRAPPING</b> Status: COMPLETED - CASE CLOSED Envirostor ID: T10000000701	<b>1100 DECOTO ROAD</b>	<b>SSW 0 - 1/8 (0.078 mi.)</b>	<b>H54</b>	<b>170</b>
<b>PG&amp;E TRANSMISSION RI</b> Status: COMPLETED - CASE CLOSED Envirostor ID: T10000004691	<b>1 ZWISSIG WAY</b>	<b>SE 1/8 - 1/4 (0.155 mi.)</b>	<b>69</b>	<b>221</b>

### Records of Emergency Release Reports

CHMIRS: The California Hazardous Material Incident Report System contains information on reported hazardous material incidents, i.e., accidental releases or spills. The source is the California Office of Emergency Services.

A review of the CHMIRS list, as provided by EDR, and dated 10/24/2018 has revealed that there is 1 CHMIRS site within approximately 0.001 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>AIR LIQUIDE AMERICA</b> OES Incident Number: 08-4505	<b>700 DECOTO ROAD</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>A17</b>	<b>40</b>

SPILLS 90: Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

A review of the SPILLS 90 list, as provided by EDR, and dated 06/06/2012 has revealed that there is 1 SPILLS 90 site within approximately 0.001 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>AIR LIQUIDE LIQUID A</b>	<b>700 DECOTO RD</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>A33</b>	<b>98</b>

## EXECUTIVE SUMMARY

Status: ACTIVE  
Site Id: SLC201S0148

### **Other Ascertainable Records**

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 03/25/2019 has revealed that there are 5 RCRA NonGen / NLR sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>AIR LIQUIDE AMERICA</b> EPA ID:: CAD981424245	<b>700 DECOTO ROAD</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>A17</b>	<b>40</b>
<b>MAGNAFLUX SURFACE CO</b> EPA ID:: CAD080712136	<b>301 DAGGETT ST</b>	<b>NE 0 - 1/8 (0.106 mi.)</b>	<b>61</b>	<b>197</b>
ESCUTIA'S AUTO REPAI EPA ID:: CAL000148463	967 H ST	WNW 1/8 - 1/4 (0.221 mi.)	N73	243

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
COLD STORAGE MANUFAC EPA ID:: CAL000379064	740 BRADFORD WAY	0 - 1/8 (0.000 mi.)	E44	142
SHEEDY HOIST EPA ID:: CAL000145898	34301 7TH ST	ESE 1/8 - 1/4 (0.196 mi.)	M71	235

TSCA: The Toxic Substances Control Act identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site. The United States Environmental Protection Agency has no current plan to update and/or re-issue this database.

A review of the TSCA list, as provided by EDR, and dated 12/31/2016 has revealed that there are 5 TSCA sites within approximately 0.001 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
AIR LIQUIDE AMER - U Chemical Number: 74862	700 DECOTO ROAD	0 - 1/8 (0.000 mi.)	A1	8
LIQUID AIR CORP Chemical Number: 74862	700 DECOTO RD	0 - 1/8 (0.000 mi.)	A2	8
UNION CITY FILL PLAN Chemical Number: 74862	700 DECOTO ROAD	0 - 1/8 (0.000 mi.)	A9	21
AIR LIQUIDE AMERICA	700 DECOTO RD	0 - 1/8 (0.000 mi.)	A16	31
AIR LIQUIDE AMERICA	700 DECOTO ROAD	0 - 1/8 (0.000 mi.)	A19	52

## EXECUTIVE SUMMARY

**FINDS:** The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

A review of the FINDS list, as provided by EDR, and dated 02/15/2019 has revealed that there are 8 FINDS sites within approximately 0.001 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
LIQUID AIR CORPORATI Registry ID:: 110065470154	700 DECOTO ROAD	0 - 1/8 (0.000 mi.)	A5	10
<b>AIR LIQUIDE AMERICA</b> Registry ID:: 110063994432	<b>700 DECOTO ROAD</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>A10</b>	<b>22</b>
<b>AIR LIQUIDE AMERICA</b> Registry ID:: 110055772560	<b>700 DECOTO ROAD</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>A17</b>	<b>40</b>
<b>FOREMOST MCKESSON CO</b> Registry ID:: 110000609789	<b>33950 7TH ST</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>C23</b>	<b>57</b>
<b>FORMER MCKESSON FACI</b> Registry ID:: 110065692021	<b>33950 SEVENTH</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>C29</b>	<b>84</b>
<b>R &amp; S MANUFACTURING</b> Registry ID:: 110013858183	<b>33955 7TH STREET</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>D35</b>	<b>101</b>

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>DAVES TRANSPORTATION</b> Registry ID:: 110002878565	<b>705 BRADFORD ST</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>B11</b>	<b>25</b>
<b>COLD STORAGE MANUFAC</b> Registry ID:: 110066331829 Registry ID:: 110070327188 Registry ID:: 110070327189 Registry ID:: 110070327190 Registry ID:: 110070327191	<b>740 BRADFORD WAY</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>E41</b>	<b>134</b>

**ECHO:** ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

A review of the ECHO list, as provided by EDR, and dated 03/03/2019 has revealed that there are 6 ECHO sites within approximately 0.001 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>AIR LIQUIDE AMERICA</b> Registry ID: 110055772560 Registry ID: 110063994432	<b>700 DECOTO ROAD</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>A10</b>	<b>22</b>
<b>FOREMOST MCKESSON CO</b> Registry ID: 110000609789	<b>33950 7TH ST</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>C23</b>	<b>57</b>
<b>FORMER MCKESSON FACI</b>	<b>33950 SEVENTH</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>C29</b>	<b>84</b>



## EXECUTIVE SUMMARY

Registry ID: 110065692021

<b>R &amp; S MANUFACTURING</b>	<b>33955 7TH STREET</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>D35</b>	<b>101</b>
Registry ID: 110013858183				

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>DAVES TRANSPORTATION</b>	<b>705 BRADFORD ST</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>B11</b>	<b>25</b>
Registry ID: 110002878565				
<b>COLD STORAGE MANUFAC</b>	<b>740 BRADFORD WAY</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>E41</b>	<b>134</b>
Registry ID: 110070327188				

CA BOND EXP. PLAN: Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

A review of the CA BOND EXP. PLAN list, as provided by EDR, and dated 01/01/1989 has revealed that there is 1 CA BOND EXP. PLAN site within approximately 1 mile of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>PACIFIC STATES STEEL</b>	<b>35124 ALVARADO-NILES</b>	<b>SSE 1/2 - 1 (0.694 mi.)</b>	<b>97</b>	<b>326</b>

Cortese: The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

A review of the Cortese list, as provided by EDR, and dated 03/25/2019 has revealed that there is 1 Cortese site within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>FORMER MCKESSON FACI</b>	<b>33950 SEVENTH</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>C26</b>	<b>68</b>

EMI: Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies

A review of the EMI list, as provided by EDR, and dated 12/31/2017 has revealed that there are 3 EMI sites within approximately 0.001 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>AIR LIQUIDE AMERICA</b>	<b>700 DECOTO ROAD</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>A7</b>	<b>14</b>
Facility Id: 4745				
Facility Id: 19650				
<b>AIR LIQUIDE AMERICA</b>	<b>700 DECOTO ROAD</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>A17</b>	<b>40</b>
Facility Id: 4745				
<b>R &amp; S MANUFACTURING</b>	<b>33955 7TH STREET</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>D35</b>	<b>101</b>
Facility Id: 12090				

## EXECUTIVE SUMMARY

ENF: A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

A review of the ENF list, as provided by EDR, and dated 11/01/2018 has revealed that there is 1 ENF site within approximately 0.001 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>FORMER MCKESSON FACI</b> Status: Historical Status: Active Status: Never Active Facility Id: 202451	<b>33950 SEVENTH</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>C26</b>	<b>68</b>

HAZNET: The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000-1,000,000 annually, representing approximately 350,000-500,000 shipments. Data from non-California manifests & continuation sheets are not included at the present time. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, & disposal method. The source is the Department of Toxic Substance Control is the agency. This database begins with calendar year 1993.

A review of the HAZNET list, as provided by EDR, and dated 12/31/2017 has revealed that there are 10 HAZNET sites within approximately 0.001 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
AIR LIQUIDE AMERICA GEPaid: CAL000092714	700 DECOTO RD	0 - 1/8 (0.000 mi.)	A4	9
<b>AIR LIQUIDE AMERICA</b> GEPaid: CAL000420474	<b>700 DECOTO ROAD</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>A17</b>	<b>40</b>
AIR LIQUIDE AMERICA GEPaid: CAL000345224	700 DECOTO RD	0 - 1/8 (0.000 mi.)	A20	53
RELIANCE AMALCO META GEPaid: CAL000113017	33955 7TH ST	0 - 1/8 (0.000 mi.)	D31	85
LIQUID AIR CORPORATI GEPaid: CAD981424245	700 DECOTO RD	0 - 1/8 (0.000 mi.)	A34	99
MCKESSON HBOC INC GEPaid: CAD073934903	33950 SEVENTH ST	0 - 1/8 (0.000 mi.)	C37	110

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
NOR CAL TRANS GEPaid: CAL000012253	705 BRADFORD ST	0 - 1/8 (0.000 mi.)	B12	26
1X ALLPOINTS WAREHOU GEPaid: CAC000837288	34015 7TH ST	0 - 1/8 (0.000 mi.)	15	31
DAVE TRANSPORTATION GEPaid: CAL000056791	705 BRADFORD WAY	0 - 1/8 (0.000 mi.)	B42	134
LIDLAW TRANSIT SERV GEPaid: CAL000153480	705 BRADFORD WAY	0 - 1/8 (0.000 mi.)	B45	143

## EXECUTIVE SUMMARY

HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSTATES]. This listing is no longer updated by the state agency.

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 12 HIST CORTESE sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>MCKESSON CHEMICAL CO</b> Reg Id: 2 019211N01	<b>33950 7TH STREET</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>C36</b>	<b>107</b>
<b>LIBERTY STATION ESCU</b> Reg Id: 01-0904	<b>967 H</b>	<b>WNW 1/8 - 1/4 (0.221 mi.)</b>	<b>N76</b>	<b>246</b>
<b>ROGER'S GARAGE</b> Reg Id: 01-2201	<b>33663 MISSION</b>	<b>N 1/4 - 1/2 (0.282 mi.)</b>	<b>80</b>	<b>284</b>
<b>UNION CITY TEEN CENT</b> Reg Id: 01-1536	<b>33623 MISSION BOULEV</b>	<b>N 1/4 - 1/2 (0.386 mi.)</b>	<b>Q87</b>	<b>299</b>
<b>MEEKS CAMPERS</b> Reg Id: 01-2028	<b>33509 MISSION BOULEV</b>	<b>NNW 1/4 - 1/2 (0.448 mi.)</b>	<b>R88</b>	<b>302</b>
<b>PACIFIC BELL</b> Reg Id: 01-1109	<b>118 "E" STREET</b>	<b>NNW 1/4 - 1/2 (0.452 mi.)</b>	<b>R90</b>	<b>305</b>

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>HIGGINS LUMBER</b> Reg Id: 01-0765	<b>600 DAGGETT AVENUE</b>	<b>ENE 0 - 1/8 (0.031 mi.)</b>	<b>F50</b>	<b>166</b>
<b>P G AND E</b> Reg Id: 01-1167	<b>1100 DECOTO RD</b>	<b>SSW 0 - 1/8 (0.078 mi.)</b>	<b>H55</b>	<b>171</b>
<b>AMBO ENGINEERING CON</b> Reg Id: 01-2172	<b>34151 ZWISSIG</b>	<b>SE 0 - 1/8 (0.081 mi.)</b>	<b>I57</b>	<b>189</b>
<b>CASCADE STEEL COMPAN</b> Reg Id: 01-0284	<b>34200 7TH ST</b>	<b>ESE 1/8 - 1/4 (0.141 mi.)</b>	<b>L68</b>	<b>219</b>
<b>B &amp; K DELIVERY SERVI</b> Reg Id: 01-0145	<b>33715 11TH ST</b>	<b>W 1/4 - 1/2 (0.309 mi.)</b>	<b>P81</b>	<b>286</b>
<b>CATELLUS - UNION CIT</b> Reg Id: 01010003	<b>MISSION AT 7TH ST</b>	<b>ESE 1/4 - 1/2 (0.451 mi.)</b>	<b>S89</b>	<b>305</b>

HWP: Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

A review of the HWP list, as provided by EDR, and dated 02/19/2019 has revealed that there are 4 HWP sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>MCKESSON CORPORATION</b> EPA Id: CAD073934903 Cleanup Status: CLOSED	<b>33950 SEVENTH ST</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>C39</b>	<b>114</b>
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>C P INORGANICS</b>	<b>34400 ZWISSIG WAY</b>	<b>SE 1/4 - 1/2 (0.269 mi.)</b>	<b>O77</b>	<b>250</b>



## EXECUTIVE SUMMARY

CIWQS: The California Integrated Water Quality System (CIWQS) is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

A review of the CIWQS list, as provided by EDR, and dated 03/05/2019 has revealed that there are 6 CIWQS sites within approximately 0.001 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>AIR LIQUIDE AMERICA</b>	<b>700 DECOTO ROAD</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>A17</b>	<b>40</b>
WILD ROSE	33950 SEVENTH ST	0 - 1/8 (0.000 mi.)	C21	55
<b>FORMER MCKESSON FACI</b>	<b>33950 SEVENTH</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>C26</b>	<b>68</b>
<b>OXFORD TIRE RECYLING</b>	<b>33950 7TH ST</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>C38</b>	<b>111</b>
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
UNION CITY	705 BRADFORD WAY	0 - 1/8 (0.000 mi.)	B13	28
<b>DAVE TRANS INC</b>	<b>705 BRADFORD WAY</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>B14</b>	<b>28</b>

CERS: The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

A review of the CERS list, as provided by EDR, and dated 04/09/2019 has revealed that there are 9 CERS sites within approximately 0.001 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>AIRGAS USA, LLC</b>	<b>700 DECOTO RD</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>A6</b>	<b>11</b>
<b>AIR LIQUIDE AMERICA</b>	<b>700 DECOTO ROAD</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>A7</b>	<b>14</b>
<b>AIR LIQUIDE AMERICA</b>	<b>700 DECOTO ROAD</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>A17</b>	<b>40</b>
<b>FORMER MCKESSON FACI</b>	<b>33950 SEVENTH</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>C26</b>	<b>68</b>
<b>R &amp; S MANUFACTURING,</b>	<b>33955 7TH ST</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>D32</b>	<b>87</b>
<b>R &amp; S MANUFACTURING</b>	<b>33955 7TH STREET</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>D35</b>	<b>101</b>
<b>MCKESSON CHEMICAL CO</b>	<b>33950 7TH STREET</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>C36</b>	<b>107</b>
<b>MCKESSON CORPORATION</b>	<b>33950 SEVENTH ST</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>C39</b>	<b>114</b>
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>COLD STORAGE</b>	<b>740 BRADFORD WAY</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>E40</b>	<b>118</b>

### EDR HIGH RISK HISTORICAL RECORDS

#### ***EDR Exclusive Records***

EDR Hist Auto: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station,

## EXECUTIVE SUMMARY

service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there is 1 EDR Hist Auto site within approximately 0.125 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
T & L MUFFLER & BRAK	1007 DECOTO RD	SW 0 - 1/8 (0.123 mi.)	K63	204

### EDR RECOVERED GOVERNMENT ARCHIVES

#### ***Exclusive Recovered Govt. Archives***

RGA LF: The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

A review of the RGA LF list, as provided by EDR, has revealed that there is 1 RGA LF site within approximately 0.001 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
OXFORD TIRE RECYCLIN	33950 SEVENTH STREET	0 - 1/8 (0.000 mi.)	C24	68

RGA LUST: The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

A review of the RGA LUST list, as provided by EDR, has revealed that there are 4 RGA LUST sites within approximately 0.001 miles of the target property.

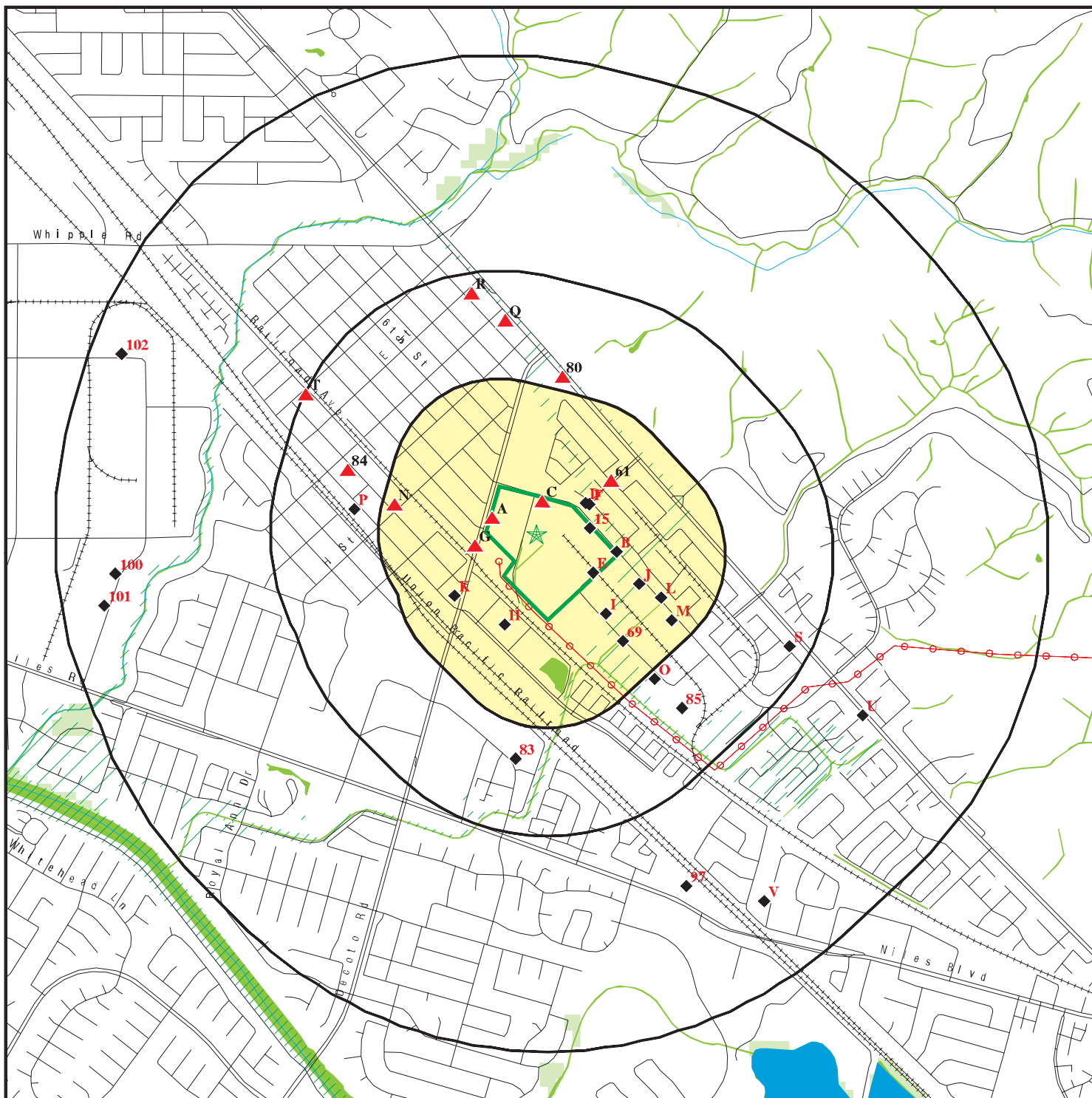
<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
AIR LIQUIDE LIQUID A	700 DECOTO RD	0 - 1/8 (0.000 mi.)	A3	9
LIQUID AIR CORPORATI	700 DECOTO RD	0 - 1/8 (0.000 mi.)	A18	52
MCKESSON CHEMICAL CO	33950 7TH ST	0 - 1/8 (0.000 mi.)	C25	68
MCKESSON CHEMICAL CO	33950 7TH ST	0 - 1/8 (0.000 mi.)	C28	84

## EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 3 records.

<u>Site Name</u>	<u>Database(s)</u>
CITY OF UNION CITY	RCRA NonGen / NLR
CITY OF UNION CITY	FINDS, ECHO
CATELLUS DECOTO PROPERTIES	CPS-SLIC

# OVERVIEW MAP - 5661694.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

Indian Reservations BIA

Power transmission lines

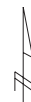
100-year flood zone

500-year flood zone

National Wetland Inventory

State Wetlands

Areas of Concern



This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.















SITE NAME: Union City Station East Project  
 ADDRESS: Decoto Road and 7th Street  
 Union City CA 94587  
 LAT/LONG: 37.596153 / 122.016004

CLIENT: ICF International  
 CONTACT: Mario Barrera  
 INQUIRY #: 5661694.2s  
 DATE: May 23, 2019 11:33 am



# DETAIL MAP - 5661694.2S



-  Target Property
-  Sites at elevations higher than or equal to the target property
-  Sites at elevations lower than the target property
-  Manufactured Gas Plants
-  Sensitive Receptors
-  National Priority List Sites
-  Dept. Defense Sites
-  Indian Reservations BIA
-  Power transmission lines
-  100-year flood zone
-  500-year flood zone
-  National Wetland Inventory
-  State Wetlands
-  Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Union City Station East Project  
 ADDRESS: Decoto Road and 7th Street  
 Union City CA 94587  
 LAT/LONG: 37.596153 / 122.016004

CLIENT: ICF International  
 CONTACT: Mario Barrera  
 INQUIRY #: 5661694.2s  
 DATE: May 23, 2019 11:34 am

## MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
<b>STANDARD ENVIRONMENTAL RECORDS</b>								
<b><i>Federal NPL site list</i></b>								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	0.001		0	NR	NR	NR	NR	0
<b><i>Federal Delisted NPL site list</i></b>								
Delisted NPL	1.000		0	0	0	0	NR	0
<b><i>Federal CERCLIS list</i></b>								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
<b><i>Federal CERCLIS NFRAP site list</i></b>								
SEMS-ARCHIVE	0.500		1	0	0	NR	NR	1
<b><i>Federal RCRA CORRACTS facilities list</i></b>								
CORRACTS	1.000		1	0	1	1	NR	3
<b><i>Federal RCRA non-CORRACTS TSD facilities list</i></b>								
RCRA-TSDF	0.500		1	0	0	NR	NR	1
<b><i>Federal RCRA generators list</i></b>								
RCRA-LQG	0.250		1	0	NR	NR	NR	1
RCRA-SQG	0.250		7	0	NR	NR	NR	7
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
<b><i>Federal institutional controls / engineering controls registries</i></b>								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
<b><i>Federal ERNS list</i></b>								
ERNS	0.001		0	NR	NR	NR	NR	0
<b><i>State- and tribal - equivalent NPL RESPONSE</i></b>								
RESPONSE	1.000		0	0	0	2	NR	2
<b><i>State- and tribal - equivalent CERCLIS ENVIROSTOR</i></b>								
ENVIROSTOR	1.000		4	0	3	5	NR	12
<b><i>State and tribal landfill and/or solid waste disposal site lists</i></b>								
SWF/LF	0.500		0	0	0	NR	NR	0
<b><i>State and tribal leaking storage tank lists</i></b>								
LUST	0.500		4	3	7	NR	NR	14

## MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
CPS-SLIC	0.500		6	1	5	NR	NR	12
Alameda County CS	0.500		1	0	1	NR	NR	2
<b>State and tribal registered storage tank lists</b>								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
<b>State and tribal voluntary cleanup sites</b>								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		2	0	2	NR	NR	4
<b>State and tribal Brownfields sites</b>								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
<b>ADDITIONAL ENVIRONMENTAL RECORDS</b>								
<b>Local Brownfield lists</b>								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
<b>Local Lists of Landfill / Solid Waste Disposal Sites</b>								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	0.001		0	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
<b>Local Lists of Hazardous waste / Contaminated Sites</b>								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	2	NR	2
SCH	0.250		0	0	NR	NR	NR	0
CDL	0.001		0	NR	NR	NR	NR	0
CERS HAZ WASTE	0.250		7	3	NR	NR	NR	10
Toxic Pits	1.000		0	0	0	0	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
PFAS	0.001		0	NR	NR	NR	NR	0
<b>Local Lists of Registered Storage Tanks</b>								
SWEEPS UST	0.250		4	1	NR	NR	NR	5
HIST UST	0.250		6	1	NR	NR	NR	7
CA FID UST	0.250		0	0	NR	NR	NR	0
CERS TANKS	0.250		0	0	NR	NR	NR	0
<b>Local Land Records</b>								
LIENS	0.001		0	NR	NR	NR	NR	0

## MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LIENS 2	0.001		0	NR	NR	NR	NR	0
DEED	0.500		2	1	0	NR	NR	3
<b>Records of Emergency Release Reports</b>								
HMIRS	0.001		0	NR	NR	NR	NR	0
CHMIRS	0.001		1	NR	NR	NR	NR	1
LDS	0.001		0	NR	NR	NR	NR	0
MCS	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		1	NR	NR	NR	NR	1
<b>Other Ascertainable Records</b>								
RCRA NonGen / NLR	0.250		3	2	NR	NR	NR	5
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		5	NR	NR	NR	NR	5
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	0.001		0	NR	NR	NR	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.001		0	NR	NR	NR	NR	0
FINDS	0.001		8	NR	NR	NR	NR	8
ECHO	0.001		6	NR	NR	NR	NR	6
UXO	1.000		0	0	0	0	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	1	NR	1
Cortese	0.500		1	0	0	NR	NR	1
CUPA Listings	0.250		0	0	NR	NR	NR	0

## MAP FINDINGS SUMMARY

<u>Database</u>	<u>Search Distance (Miles)</u>	<u>Target Property</u>	<u>&lt; 1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>&gt; 1</u>	<u>Total Plotted</u>
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	0.001		3	NR	NR	NR	NR	3
ENF	0.001		1	NR	NR	NR	NR	1
Financial Assurance	0.001		0	NR	NR	NR	NR	0
HAZNET	0.001		10	NR	NR	NR	NR	10
ICE	0.001		0	NR	NR	NR	NR	0
HIST CORTESE	0.500		4	2	6	NR	NR	12
HWP	1.000		1	0	1	2	NR	4
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.001		0	NR	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	0.001		3	NR	NR	NR	NR	3
PEST LIC	0.001		0	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		1	0	0	1	NR	2
UIC	0.001		0	NR	NR	NR	NR	0
UIC GEO	0.001		0	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	0.001		2	NR	NR	NR	NR	2
MILITARY PRIV SITES	0.001		0	NR	NR	NR	NR	0
PROJECT	0.001		0	NR	NR	NR	NR	0
WDR	0.001		0	NR	NR	NR	NR	0
CIWQS	0.001		6	NR	NR	NR	NR	6
CERS	0.001		9	NR	NR	NR	NR	9
WIP	0.250		0	0	NR	NR	NR	0
NON-CASE INFO	0.001		0	NR	NR	NR	NR	0
OTHER OIL GAS	0.001		0	NR	NR	NR	NR	0
PROD WATER PONDS	0.001		0	NR	NR	NR	NR	0
SAMPLING POINT	0.001		0	NR	NR	NR	NR	0
WELL STIM PROJ	0.001		0	NR	NR	NR	NR	0

### **EDR HIGH RISK HISTORICAL RECORDS**

#### ***EDR Exclusive Records***

EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		1	NR	NR	NR	NR	1
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0

### **EDR RECOVERED GOVERNMENT ARCHIVES**

#### ***Exclusive Recovered Govt. Archives***

RGA LF	0.001		1	NR	NR	NR	NR	1
RGA LUST	0.001		4	NR	NR	NR	NR	4

- Totals --		0	118	14	26	14	0	172
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#### NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Site

Database(s)

EDR ID Number  
 EPA ID Number

**A1**      **AIR LIQUIDE AMER - UNION CITY**  
**700 DECOTO ROAD**  
**< 1/8**    **UNION CITY, CA 94587**  
**1 ft.**

**TSCA**    **1005925622**  
           **N/A**

**Site 1 of 17 in cluster A**

**Relative:**  
**Higher**  
**Actual:**  
**71 ft.**

TSCA:  
 Company Name:            AIR LIQUIDE AMERICA  
 TSCA Address:            700 DECOTO ROAD  
 TSCA Name:                AIR LIQUIDE AMER - UNION CITY  
 Manuf./Importer Status:    M  
 Reporting Year:            1998

Chemical Details:  
 Chem. substance definition:    Not reported  
 EPA inventory flag:            Not reported  
 Former CAS #:                57113-74-3  
 Preferred CA index name:        Ethyne  
 Molecular Formula:            C2H2  
 CAS #:                        74-86-2  
 Submitter:                    Acetylene; Acetylene  
 UVCB flag:                    Not reported

Aggregate Prod Volume Ranges:  
 CAS #:                        74862  
 Chemical Name:                Ethyne  
 Range 02:                    >100M - 500M  
 Range 86:                    >100M - 500M  
 Range 90:                    >100M - 500M  
 Range 94:                    >100M - 500M  
 Range 98:                    >100M - 500M

**A2**      **LIQUID AIR CORP**  
**700 DECOTO RD**  
**< 1/8**    **UNION CITY, CA 94587**  
**1 ft.**

**TSCA**    **1005930061**  
           **N/A**

**Site 2 of 17 in cluster A**

**Relative:**  
**Higher**  
**Actual:**  
**71 ft.**

TSCA:  
 Company Name:            LIQUID AIR CORPORATION  
 TSCA Address:            700 DECOTO RD  
 TSCA Name:                LIQUID AIR CORP  
 Manuf./Importer Status:    M  
 Reporting Year:            1990

Chemical Details:  
 Chem. substance definition:    Not reported  
 EPA inventory flag:            Not reported  
 Former CAS #:                57113-74-3  
 Preferred CA index name:        Ethyne  
 Molecular Formula:            C2H2  
 CAS #:                        74-86-2  
 Submitter:                    Acetylene; Acetylene  
 UVCB flag:                    Not reported

Aggregate Prod Volume Ranges:  
 CAS #:                        74862  
 Chemical Name:                Ethyne  
 Range 02:                    >100M - 500M

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**LIQUID AIR CORP (Continued)**

**1005930061**

Range 86: >100M - 500M  
Range 90: >100M - 500M  
Range 94: >100M - 500M  
Range 98: >100M - 500M

**A3**

**AIR LIQUIDE LIQUID AIR CORP  
700 DECOTO RD  
UNION CITY, CA**

**RGA LUST**

**S114569190  
N/A**

< 1/8  
1 ft.

**Site 3 of 17 in cluster A**

**Relative:  
Higher**

**Relative:** RGA LUST:

2002 AIR LIQUIDE LIQUID AIR CORP 700 DECOTO RD

**Actual:  
71 ft.**

**A4**

**AIR LIQUIDE AMERICA CORP  
700 DECOTO RD  
UNION CITY, CA 94587**

**HAZNET**

**S113056921  
N/A**

< 1/8  
1 ft.

**Site 4 of 17 in cluster A**

**Relative:  
Higher**

**Relative:** HAZNET:

**Actual:  
71 ft.**

Site Name: AIR LIQUIDE AMERICA CORP  
Year: 2006  
GEPaid: CAL000092714  
Contact: JACK CHOSTNER/JANET CHAVEZ  
Telephone: 5104294216  
Mailing Name: Not reported  
Mailing Address: 700 DECOTO RD  
Mailing City,St,Zip: UNION CITY, CA 945873513  
Gen County: Not reported  
TSD EPA ID: CAD097030993  
TSD County: Not reported  
Tons: 0.22  
CA Waste Code: 135-  
Method: -  
Facility County: Alameda

Site Name: AIR LIQUIDE AMERICA CORP  
Year: 2006  
GEPaid: CAL000092714  
Contact: JACK CHOSTNER/JANET CHAVEZ  
Telephone: 5104294216  
Mailing Name: Not reported  
Mailing Address: 700 DECOTO RD  
Mailing City,St,Zip: UNION CITY, CA 945873513  
Gen County: Not reported  
TSD EPA ID: CAD097030993  
TSD County: Not reported  
Tons: 0.2  
CA Waste Code: 181-  
Method: -  
Facility County: Alameda

Site Name: AIR LIQUIDE AMERICA CORP  
Year: 2006

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**AIR LIQUIDE AMERICA CORP (Continued)**

**S113056921**

GEPaid: CAL000092714  
Contact: JACK CHOSTNER/JANET CHAVEZ  
Telephone: 5104294216  
Mailing Name: Not reported  
Mailing Address: 700 DECOTO RD  
Mailing City,St,Zip: UNION CITY, CA 945873513  
Gen County: Not reported  
TSD EPA ID: CAD097030993  
TSD County: Not reported  
Tons: 1.5  
CA Waste Code: 181-  
Method: -  
Facility County: Alameda

Site Name: AIR LIQUIDE AMERICA CORP  
Year: 1996  
GEPaid: CAL000092714  
Contact: AIR LIQUIDE AMERICA CORP  
Telephone: 7136248060  
Mailing Name: Not reported  
Mailing Address: 700 DECOTO RD  
Mailing City,St,Zip: UNION CITY, CA 945873513  
Gen County: Not reported  
TSD EPA ID: CAD028409019  
TSD County: Not reported  
Tons: .4587  
CA Waste Code: 132-  
Method: T01-  
Facility County: 1

**A5**

**LIQUID AIR CORPORATION  
700 DECOTO ROAD  
UNION CITY, CA 94587**

**FINDS 1023257847  
N/A**

< 1/8  
1 ft.

**Site 5 of 17 in cluster A**

**Relative:  
Higher**

FINDS:

**Actual:  
71 ft.**

Registry ID: 110065470154  
Environmental Interest/Information System  
STATE MASTER

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.



MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Site

Database(s)

EDR ID Number  
EPA ID Number

**A6**  
**< 1/8**  
**1 ft.**

**AIRGAS USA, LLC**  
**700 DECOTO RD**  
**UNION CITY, CA 94587**

**CERS HAZ WASTE**  
**CERS**      **S121770762**  
**N/A**

**Site 6 of 17 in cluster A**

**Relative:**  
**Higher**  
**Actual:**  
**71 ft.**

CERS HAZ WASTE:  
Site ID: 384355  
CERS ID: 10003270  
CERS Description: Hazardous Waste Generator

Coordinates:  
Site ID: 384355  
Facility Name: Airgas USA, LLC  
Env Int Type Code: HMBP  
Program ID: 10003270  
Coord Name: Not reported  
Ref Point Type Desc: Unknown  
Latitude: 37.596703  
Longitude: -122.017174

Affiliation:  
Affiliation Type Desc: CUPA District  
Entity Name: Union City Environmental Programs  
Entity Title: Not reported  
Affiliation Address: 34009 Alvarado-Niles Road  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: (510) 675-5360

Affiliation Type Desc: Legal Owner  
Entity Name: Airgas USA, LLC  
Entity Title: Not reported  
Affiliation Address: 259 N. Radnor-Chester Road, Suite 100  
Affiliation City: Radnor  
Affiliation State: PA  
Affiliation Country: United States  
Affiliation Zip: 19087  
Affiliation Phone: (610) 687-5253

Affiliation Type Desc: Operator  
Entity Name: Airgas USA, LLC  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: (510) 429-4247

Affiliation Type Desc: Environmental Contact  
Entity Name: Eric Kleinschmidt  
Entity Title: Not reported  
Affiliation Address: 4000 Nelson Avenue  
Affiliation City: Concord  
Affiliation State: CA  
Affiliation Country: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**AIRGAS USA, LLC (Continued)**

**S121770762**

Affiliation Zip: 94520  
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address  
Entity Name: Mailing Address  
Entity Title: Not reported  
Affiliation Address: 6790 Florin Perkins Rd #300  
Affiliation City: Sacramento  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 95828  
Affiliation Phone: Not reported

Affiliation Type Desc: Parent Corporation  
Entity Name: Air Liquide America  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Property Owner  
Entity Name: AIRGAS USA, LLC  
Entity Title: Not reported  
Affiliation Address: 259 N. Radnor-Chester Road, Suite 100  
Affiliation City: Radnor  
Affiliation State: PA  
Affiliation Country: United States  
Affiliation Zip: 19087  
Affiliation Phone: (610) 687-5253

Affiliation Type Desc: Identification Signer  
Entity Name: Eric Kleinschmidt  
Entity Title: Senior Environmental Specialist  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

CERS TANKS:  
Site ID: 384355  
CERS ID: 10003270  
Site Name: AIRGAS USA, LLC  
CERS Description: Chemical Storage Facilities

Coordinates:  
Site ID: 384355  
Facility Name: Airgas USA, LLC  
Env Int Type Code: HMBP  
Program ID: 10003270  
Coord Name: Not reported  
Ref Point Type Desc: Unknown

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**AIRGAS USA, LLC (Continued)**

**S121770762**

Latitude: 37.596703  
Longitude: -122.017174

Affiliation:

Affiliation Type Desc: CUPA District  
Entity Name: Union City Environmental Programs  
Entity Title: Not reported  
Affiliation Address: 34009 Alvarado-Niles Road  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: (510) 675-5360

Affiliation Type Desc: Legal Owner  
Entity Name: Airgas USA, LLC  
Entity Title: Not reported  
Affiliation Address: 259 N. Radnor-Chester Road, Suite 100  
Affiliation City: Radnor  
Affiliation State: PA  
Affiliation Country: United States  
Affiliation Zip: 19087  
Affiliation Phone: (610) 687-5253

Affiliation Type Desc: Operator  
Entity Name: Airgas USA, LLC  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: (510) 429-4247

Affiliation Type Desc: Environmental Contact  
Entity Name: Eric Kleinschmidt  
Entity Title: Not reported  
Affiliation Address: 4000 Nelson Avenue  
Affiliation City: Concord  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94520  
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address  
Entity Name: Mailing Address  
Entity Title: Not reported  
Affiliation Address: 6790 Florin Perkins Rd #300  
Affiliation City: Sacramento  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 95828  
Affiliation Phone: Not reported

Affiliation Type Desc: Parent Corporation  
Entity Name: Air Liquide America  
Entity Title: Not reported

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**AIRGAS USA, LLC (Continued)**

**S121770762**

Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Property Owner
Entity Name:	AIRGAS USA, LLC
Entity Title:	Not reported
Affiliation Address:	259 N. Radnor-Chester Road, Suite 100
Affiliation City:	Radnor
Affiliation State:	PA
Affiliation Country:	United States
Affiliation Zip:	19087
Affiliation Phone:	(610) 687-5253
Affiliation Type Desc:	Identification Signer
Entity Name:	Eric Kleinschmidt
Entity Title:	Senior Environmental Specialist
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

**A7 AIR LIQUIDE AMERICA CORPORATIO**  
**700 DECOTO ROAD**  
**UNION CITY, CA 94587**

**EMI S105936374**  
**CERS N/A**

< 1/8  
 1 ft.

**Site 7 of 17 in cluster A**

<b>Relative: Higher</b>	EMI:	
	Year:	1990
<b>Actual: 71 ft.</b>	County Code:	1
	Air Basin:	SF
	Facility ID:	4745
	Air District Name:	BA
	SIC Code:	2813
	Air District Name:	BAY AREA AQMD
	Community Health Air Pollution Info System:	Not reported
	Consolidated Emission Reporting Rule:	Not reported
	Total Organic Hydrocarbon Gases Tons/Yr:	2
	Reactive Organic Gases Tons/Yr:	2
	Carbon Monoxide Emissions Tons/Yr:	0
	NOX - Oxides of Nitrogen Tons/Yr:	0
	SOX - Oxides of Sulphur Tons/Yr:	0
	Particulate Matter Tons/Yr:	0
	Part. Matter 10 Micrometers and Smlr Tons/Yr:	0
	Year:	1997
	County Code:	1
	Air Basin:	SF
	Facility ID:	4745
	Air District Name:	BA
SIC Code:	2813	

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**AIR LIQUIDE AMERICA CORPORATIO (Continued)**

**S105936374**

Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0  
Reactive Organic Gases Tons/Yr: 0  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 1998  
County Code: 1  
Air Basin: SF  
Facility ID: 4745  
Air District Name: BA  
SIC Code: 2813  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 2  
Reactive Organic Gases Tons/Yr: 2  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 1999  
County Code: 1  
Air Basin: SF  
Facility ID: 4745  
Air District Name: BA  
SIC Code: 2813  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 2  
Reactive Organic Gases Tons/Yr: 1  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2000  
County Code: 1  
Air Basin: SF  
Facility ID: 4745  
Air District Name: BA  
SIC Code: 2813  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 2  
Reactive Organic Gases Tons/Yr: 1  
Carbon Monoxide Emissions Tons/Yr: 0

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**AIR LIQUIDE AMERICA CORPORATIO (Continued)**

**S105936374**

NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2002  
County Code: 1  
Air Basin: SF  
Facility ID: 4745  
Air District Name: BA  
SIC Code: 2813  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0  
Reactive Organic Gases Tons/Yr: 0  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2003  
County Code: 1  
Air Basin: SF  
Facility ID: 4745  
Air District Name: BA  
SIC Code: 2813  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0  
Reactive Organic Gases Tons/Yr: 0  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2008  
County Code: 1  
Air Basin: SF  
Facility ID: 19650  
Air District Name: BA  
SIC Code: 2813  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: .231  
Reactive Organic Gases Tons/Yr: .2189811  
Carbon Monoxide Emissions Tons/Yr: .003  
NOX - Oxides of Nitrogen Tons/Yr: .013  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: .001  
Part. Matter 10 Micrometers and Smlr Tons/Yr:.000976

Year: 2009

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**AIR LIQUIDE AMERICA CORPORATIO (Continued)**

**S105936374**

County Code: 1  
Air Basin: SF  
Facility ID: 19650  
Air District Name: BA  
SIC Code: 2813  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0.23000000000000001  
Reactive Organic Gases Tons/Yr: 0.21814439999999999  
Carbon Monoxide Emissions Tons/Yr: 0.001  
NOX - Oxides of Nitrogen Tons/Yr: 5.000000000000001E-3  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2010  
County Code: 1  
Air Basin: SF  
Facility ID: 19650  
Air District Name: BA  
SIC Code: 2813  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0.23000000000000001  
Reactive Organic Gases Tons/Yr: 0.21814439999999999  
Carbon Monoxide Emissions Tons/Yr: 0.001  
NOX - Oxides of Nitrogen Tons/Yr: 5.000000000000001E-3  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2011  
County Code: 1  
Air Basin: SF  
Facility ID: 19650  
Air District Name: BA  
SIC Code: 2813  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0.23  
Reactive Organic Gases Tons/Yr: 0.2181444  
Carbon Monoxide Emissions Tons/Yr: 0.001  
NOX - Oxides of Nitrogen Tons/Yr: 0.005  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2012  
County Code: 1  
Air Basin: SF  
Facility ID: 19650  
Air District Name: BA  
SIC Code: 2813  
Air District Name: BAY AREA AQMD

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**AIR LIQUIDE AMERICA CORPORATIO (Continued)**

**S105936374**

Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0.23  
Reactive Organic Gases Tons/Yr: 0.2181444  
Carbon Monoxide Emissions Tons/Yr: 0.001  
NOX - Oxides of Nitrogen Tons/Yr: 0.005  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2013  
County Code: 1  
Air Basin: SF  
Facility ID: 19650  
Air District Name: BA  
SIC Code: 2813  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0.23  
Reactive Organic Gases Tons/Yr: 0.2181444  
Carbon Monoxide Emissions Tons/Yr: 0.001  
NOX - Oxides of Nitrogen Tons/Yr: 0.005  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2014  
County Code: 1  
Air Basin: SF  
Facility ID: 19650  
Air District Name: BA  
SIC Code: 2813  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0.230268225  
Reactive Organic Gases Tons/Yr: 0  
Carbon Monoxide Emissions Tons/Yr: 0.00102  
NOX - Oxides of Nitrogen Tons/Yr: 0.004691783  
SOX - Oxides of Sulphur Tons/Yr: 2.175e-006  
Particulate Matter Tons/Yr: 0.000349264  
Part. Matter 10 Micrometers and Smlr Tons/Yr:0.000335294

Year: 2015  
County Code: 1  
Air Basin: SF  
Facility ID: 19650  
Air District Name: BA  
SIC Code: 2813  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0.318315009  
Reactive Organic Gases Tons/Yr: 0.318308541  
Carbon Monoxide Emissions Tons/Yr: 0.0007395  
NOX - Oxides of Nitrogen Tons/Yr: 0.003401544



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**AIR LIQUIDE AMERICA CORPORATIO (Continued)**

**S105936374**

SOX - Oxides of Sulphur Tons/Yr: 1.577e-006  
Particulate Matter Tons/Yr: 4.8579e-005  
Part. Matter 10 Micrometers and Smllr Tons/Yr:4.6636e-005

**CERS TANKS:**

Site ID: 450016  
CERS ID: 110055772560  
Site Name: AIR LIQUIDE AMERICA CORPORATIO  
CERS Description: US EPA Air Emission Inventory System (EIS)

**Affiliation:**

Affiliation Type Desc: Environmental Contact  
Entity Name: Eric Kleinschmidt  
Entity Title: Not reported  
Affiliation Address: 4000 NELSON AVE  
Affiliation City: CONCORD  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Public Contact  
Entity Name: BILL CARDOZA  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Environmental Contact  
Entity Name: Chad Beauchamp  
Entity Title: Plant Manager  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Environmental Contact  
Entity Name: TIMOTHY CHLD  
Entity Title: Not reported  
Affiliation Address: POBOX 3047  
Affiliation City: HOUSTON  
Affiliation State: TX  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Property Owner  
Entity Name: Air Liquide  
Entity Title: Not reported  
Affiliation Address: 700 DECOTO ROAD  
Affiliation City: UNIONCITY  
Affiliation State: Not reported

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**AIR LIQUIDE AMERICA CORPORATIO (Continued)**

**S105936374**

Affiliation Country: Not reported  
 Affiliation Zip: Not reported  
 Affiliation Phone: Not reported

Affiliation Type Desc: Environmental Contact  
 Entity Name: MS DONNA M SMITH  
 Entity Title: Not reported  
 Affiliation Address: Not reported  
 Affiliation City: Not reported  
 Affiliation State: Not reported  
 Affiliation Country: Not reported  
 Affiliation Zip: Not reported  
 Affiliation Phone: Not reported

Affiliation Type Desc: Environmental Contact  
 Entity Name: RAYMOND KELLNER  
 Entity Title: ENVIRONMENTAL CONTACT  
 Affiliation Address: 4000 NELSON AVE  
 Affiliation City: CONCORD  
 Affiliation State: CA  
 Affiliation Country: Not reported  
 Affiliation Zip: Not reported  
 Affiliation Phone: Not reported

Affiliation Type Desc: Facility Owner  
 Entity Name: AIR LIQUIDE AMER  
 Entity Title: OWNER  
 Affiliation Address: 700 DECOTE ROAD  
 Affiliation City: UNIONCITY  
 Affiliation State: Not reported  
 Affiliation Country: Not reported  
 Affiliation Zip: Not reported  
 Affiliation Phone: Not reported

Affiliation Type Desc: Operator  
 Entity Name: AIR LIQUIDE AMER SPCLTY GASES LLC  
 Entity Title: OPERATOR  
 Affiliation Address: 700 DECOTE ROAD  
 Affiliation City: UNIONCITY  
 Affiliation State: CA  
 Affiliation Country: Not reported  
 Affiliation Zip: Not reported  
 Affiliation Phone: Not reported

**A8**

**AIR LIQUID AMERICA CORP  
 700 DECOTO RD  
 UNION CITY, CA 94587**

**WDS S105790598  
 N/A**

< 1/8  
 1 ft.

**Site 8 of 17 in cluster A**

**Relative:  
 Higher**

WDS:

**Actual:  
 71 ft.**

Facility ID: San Francisco Bay 011000388  
 Facility Type: Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**AIR LIQUID AMERICA CORP (Continued)**

**S105790598**

pumping.

Facility Status: Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.

NPDES Number: CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board

Subregion: 2

Facility Telephone: Not reported

Facility Contact: Not reported

Agency Name: AIR LIQUIDE

Agency Address: Not reported

Agency City,St,Zip: 0

Agency Contact: Not reported

Agency Telephone: Not reported

Agency Type: Private

SIC Code: 0

SIC Code 2: Not reported

Primary Waste Type: Not reported

Primary Waste: Not reported

Waste Type2: Not reported

Waste2: Not reported

Primary Waste Type: Not reported

Secondary Waste: Not reported

Secondary Waste Type: Not reported

Design Flow: 0

Baseline Flow: 0

Reclamation: Not reported

POTW: Not reported

Treat To Water: Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.

Complexity: Category C - Facilities having no waste treatment systems, such as cooling water dischargers or those who must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

**A9**

**UNION CITY FILL PLANT  
 700 DECOTO ROAD  
 UNION CITY, CA 94587**

**TSCA 1007089867  
 N/A**

**< 1/8  
 1 ft.**

**Site 9 of 17 in cluster A**

**Relative:  
 Higher  
 Actual:  
 71 ft.**

TSCA:  
 Company Name: AIR LIQUIDE AMERICA L.P.  
 TSCA Address: 700 DECOTO ROAD  
 TSCA Name: UNION CITY FILL PLANT  
 Manuf./Importer Status: M  
 Reporting Year: 2000

Chemical Details:  
 Chem. substance definition: Not reported  
 EPA inventory flag: Not reported  
 Former CAS #: 57113-74-3  
 Preferred CA index name: Ethyne

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**UNION CITY FILL PLANT (Continued)**

**1007089867**

Molecular Formula: C2H2  
CAS #: 74-86-2  
Submitter: Acetylene; Acetylene  
UVCB flag: Not reported

Aggregate Prod Volume Ranges:

CAS #: 74862  
Chemical Name: Ethyne  
Range 02: >100M - 500M  
Range 86: >100M - 500M  
Range 90: >100M - 500M  
Range 94: >100M - 500M  
Range 98: >100M - 500M

Company Name: AIR LIQUIDE AMERICA L.P.  
TSCA Address: 700 DECOTO ROAD  
TSCA Name: UNION CITY FILL PLANT  
Manuf./Importer Status: M  
Reporting Year: 2000

Chemical Details:

Chem. substance definition: Not reported  
EPA inventory flag: Not reported  
Former CAS #: 57113-74-3  
Preferred CA index name: Ethyne  
Molecular Formula: C2H2  
CAS #: 74-86-2  
Submitter: Acetylene; Acetylene  
UVCB flag: Not reported

Aggregate Prod Volume Ranges:

CAS #: 74862  
Chemical Name: Ethyne  
Range 02: >100M - 500M  
Range 86: >100M - 500M  
Range 90: >100M - 500M  
Range 94: >100M - 500M  
Range 98: >100M - 500M

**A10** AIR LIQUIDE AMERICA CORPORATIO  
700 DECOTO ROAD  
UNION CITY, CA 94587  
**< 1/8**  
**1 ft.**

**RCRA-LQG** 1017785670  
**FINDS** CAL000345224  
**ECHO**

**Site 10 of 17 in cluster A**

**Relative:**  
**Higher**  
**Actual:**  
**71 ft.**

RCRA-LQG:  
Date form received by agency: 12/24/2014  
Facility name: AIR LIQUIDE AMERICA SPECIALITY GASES LLC  
Facility address: 700 DECOTO RD  
UNION CITY, CA 94587  
EPA ID: CAL000345224  
Mailing address: DECOTO RD  
UNION CITY, CA 94587  
Contact: CHAD BEAUCHAMP  
Contact address: DECOTO RD

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**AIR LIQUIDE AMERICA CORPORATIO (Continued)**

**1017785670**

UNION CITY, CA 94587  
Contact country: Not reported  
Contact telephone: 713-402-2399  
Contact email: CHAD.BEAUCHAMP@AIRLIQUIDE.COM  
EPA Region: 09  
Classification: Large Quantity Generator  
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

**Owner/Operator Summary:**

Owner/operator name: AIR LIQUIDE AMERICA SPECIALTY GASES LLC  
Owner/operator address: Not reported  
Not reported  
Owner/operator country: Not reported  
Owner/operator telephone: Not reported  
Owner/operator email: Not reported  
Owner/operator fax: Not reported  
Owner/operator extension: Not reported  
Legal status: Private  
Owner/Operator Type: Operator  
Owner/Op start date: 01/01/2008  
Owner/Op end date: Not reported

Owner/operator name: AIR LIQUIDE AMERICA SPECIALITY GASES LLC  
Owner/operator address: POST OAK  
HOUSTON, TX 77056  
Owner/operator country: Not reported  
Owner/operator telephone: 215-766-8860  
Owner/operator email: Not reported  
Owner/operator fax: Not reported  
Owner/operator extension: Not reported  
Legal status: Private  
Owner/Operator Type: Owner  
Owner/Op start date: 01/01/2008  
Owner/Op end date: Not reported

**Handler Activities Summary:**

U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): No  
Recycler of hazardous waste: No  
Transporter of hazardous waste: No  
Treater, storer or disposer of HW: No  
Underground injection activity: No  
On-site burner exemption: No  
Furnace exemption: No  
Used oil fuel burner: No

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**AIR LIQUIDE AMERICA CORPORATIO (Continued)**

**1017785670**

Used oil processor: No  
User oil refiner: No  
Used oil fuel marketer to burner: No  
Used oil Specification marketer: No  
Used oil transfer facility: No  
Used oil transporter: No

. Waste code: D001  
. Waste name: IGNITABLE WASTE

. Waste code: D002  
. Waste name: CORROSIVE WASTE

. Waste code: D010  
. Waste name: SELENIUM

. Waste code: U147  
. Waste name: 2,5-FURANDIONE (OR) MALEIC ANHYDRIDE

Violation Status: No violations found

**FINDS:**

Registry ID: 110063994432

**Environmental Interest/Information System**

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

**HAZARDOUS WASTE BIENNIAL REPORTER**

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

**ECHO:**

Envid: 1017785670  
Registry ID: 110055772560  
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110055772560>

Envid: 1017785670  
Registry ID: 110063994432  
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110063994432>

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**B11**      **DAVES TRANSPORTATION SVCS**  
**705 BRADFORD ST**  
**< 1/8**      **UNION CITY, CA 94587**  
**1 ft.**

**RCRA-SQG**      **1000686621**  
**FINDS**          **CAD983639600**  
**ECHO**

**Site 1 of 8 in cluster B**

**Relative:**  
**Lower**

RCRA-SQG:

**Actual:**  
**60 ft.**

Date form received by agency: 06/17/1992  
Facility name: DAVES TRANSPORTATION SVCS  
Facility address: 705 BRADFORD ST  
UNION CITY, CA 94587  
EPA ID: CAD983639600  
Mailing address: BRADFORD ST  
UNION CITY, CA 94587  
Contact: KEN QUIJAN  
Contact address: 705 BRADFORD ST  
UNION CITY, CA 94587  
Contact country: US  
Contact telephone: 510-471-1411  
Contact email: Not reported  
EPA Region: 09  
Classification: Small Small Quantity Generator  
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name: DAVES TRANSPORTATION  
Owner/operator address: 705 BRADFORD ST  
UNION CITY, CA 94587  
Owner/operator country: Not reported  
Owner/operator telephone: 510-471-1411  
Owner/operator email: Not reported  
Owner/operator fax: Not reported  
Owner/operator extension: Not reported  
Legal status: Private  
Owner/Operator Type: Owner  
Owner/Op start date: Not reported  
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): No  
Recycler of hazardous waste: No  
Transporter of hazardous waste: No  
Treater, storer or disposer of HW: No  
Underground injection activity: No  
On-site burner exemption: No  
Furnace exemption: No  
Used oil fuel burner: No  
Used oil processor: No  
User oil refiner: No  
Used oil fuel marketer to burner: No  
Used oil Specification marketer: No  
Used oil transfer facility: No  
Used oil transporter: No

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**DAVES TRANSPORTATION SVCS (Continued)**

**1000686621**

Violation Status: No violations found

**FINDS:**

Registry ID: 110002878565

**Environmental Interest/Information System**

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

**ECHO:**

Envid: 1000686621  
Registry ID: 110002878565  
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110002878565>

**B12**

**NOR CAL TRANS  
705 BRADFORD ST  
UNION CITY, CA 94587**

**HAZNET S113025743  
N/A**

**< 1/8  
1 ft.**

**Site 2 of 8 in cluster B**

**Relative:  
Lower  
Actual:  
60 ft.**

**HAZNET:**  
Site Name: NOR CAL TRANS  
Year: 1997  
GEPaid: CAL000012253  
Contact: DAVE SYSTEMS INC  
Telephone: 5104711415  
Mailing Name: Not reported  
Mailing Address: 705 BRADFORD WAY  
Mailing City,St,Zip: UNION CITY, CA 945873605  
Gen County: Not reported  
TSD EPA ID: CAD059494310  
TSD County: Not reported  
Tons: 2.5228  
CA Waste Code: 612-  
Method: -  
Facility County: 1

Site Name: NOR CAL TRANS  
Year: 1997  
GEPaid: CAL000012253  
Contact: DAVE SYSTEMS INC  
Telephone: 5104711415  
Mailing Name: Not reported  
Mailing Address: 705 BRADFORD WAY  
Mailing City,St,Zip: UNION CITY, CA 945873605  
Gen County: Not reported  
TSD EPA ID: CAD059494310  
TSD County: Not reported  
Tons: 1.8348



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**NOR CAL TRANS (Continued)**

**S113025743**

CA Waste Code: 612-  
Method: D99-  
Facility County: 1

Site Name: NOR CAL TRANS  
Year: 1997  
GEPaid: CAL000012253  
Contact: DAVE SYSTEMS INC  
Telephone: 5104711415  
Mailing Name: Not reported  
Mailing Address: 705 BRADFORD WAY  
Mailing City,St,Zip: UNION CITY, CA 945873605  
Gen County: Not reported  
TSD EPA ID: CAD059494310  
TSD County: Not reported  
Tons: 6.6719  
CA Waste Code: 612-  
Method: H01-  
Facility County: 1

Site Name: NOR CAL TRANS  
Year: 1997  
GEPaid: CAL000012253  
Contact: DAVE SYSTEMS INC  
Telephone: 5104711415  
Mailing Name: Not reported  
Mailing Address: 705 BRADFORD WAY  
Mailing City,St,Zip: UNION CITY, CA 945873605  
Gen County: Not reported  
TSD EPA ID: CAD059494310  
TSD County: Not reported  
Tons: .0000  
CA Waste Code: -  
Method: H01-  
Facility County: 1

Site Name: NOR CAL TRANS  
Year: 1996  
GEPaid: CAL000012253  
Contact: DAVE SYSTEMS INC  
Telephone: 5104711415  
Mailing Name: Not reported  
Mailing Address: 705 BRADFORD WAY  
Mailing City,St,Zip: UNION CITY, CA 945873605  
Gen County: Not reported  
TSD EPA ID: CAD059494310  
TSD County: Not reported  
Tons: 24.8707  
CA Waste Code: 612-  
Method: H01-  
Facility County: 1

[Click this hyperlink](#) while viewing on your computer to access  
1 additional CA\_HAZNET: record(s) in the EDR Site Report.

MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Site

Database(s)

EDR ID Number  
EPA ID Number

**B13**      **UNION CITY**  
**705 BRADFORD WAY**  
**< 1/8**      **UNION CITY, CA 94587**  
**1 ft.**

**CIWQS**      **S121686988**  
**N/A**

**Site 3 of 8 in cluster B**

**Relative:**  
**Lower**  
**Actual:**  
**60 ft.**

**CIWQS:**  
Agency: Dave Transportation Services Inc  
Agency Address: 201 Sandpointe Ave Ste 800, Santa Ana, CA 92707  
Place/Project Type: Industrial - Local Passenger Transportation, NEC  
SIC/NAICS: 4119  
Region: 2  
Program: INDSTW  
Regulatory Measure Status: Terminated  
Regulatory Measure Type: Storm water industrial  
Order Number: 2014-0057-DWQ  
WDID: 2 011014988  
NPDES Number: CAS000001  
Adoption Date: Not reported  
Effective Date: 03/05/1999  
Termination Date: 06/22/2000  
Expiration/Review Date: Not reported  
Design Flow: Not reported  
Major/Minor: Not reported  
Complexity: Not reported  
TTWQ: Not reported  
Enforcement Actions within 5 years: 0  
Violations within 5 years: 0  
Latitude: 37.5955  
Longitude: -122.01268

**B14**      **DAVE TRANS INC**  
**705 BRADFORD WAY**  
**< 1/8**      **UNION CITY, CA 94587**  
**1 ft.**

**NPDES**      **S117698616**  
**CIWQS**      **N/A**

**Site 4 of 8 in cluster B**

**Relative:**  
**Lower**  
**Actual:**  
**60 ft.**

**NPDES:**  
Facility Status: Not reported  
NPDES Number: Not reported  
Region: Not reported  
Agency Number: Not reported  
Regulatory Measure ID: Not reported  
Place ID: Not reported  
Order Number: Not reported  
WDID: 2 011006149  
Regulatory Measure Type: Industrial  
Program Type: Not reported  
Adoption Date Of Regulatory Measure: Not reported  
Effective Date Of Regulatory Measure: Not reported  
Termination Date Of Regulatory Measure: Not reported  
Expiration Date Of Regulatory Measure: Not reported  
Discharge Address: Not reported  
Discharge Name: Not reported  
Discharge City: Not reported  
Discharge State: Not reported  
Discharge Zip: Not reported  
Status: Terminated  
Status Date: 04/21/1992  
Operator Name: Dave Transportation Services Inc

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**DAVE TRANS INC (Continued)**

**S117698616**

Operator Address: 201 Sandpointe Ave Ste 800  
Operator City: Santa Ana  
Operator State: California  
Operator Zip: 92707

NPDES as of 03/2018:

NPDES Number: Not reported  
Status: Not reported  
Agency Number: Not reported  
Region: 2  
Regulatory Measure ID: 275419  
Order Number: Not reported  
Regulatory Measure Type: Industrial  
Place ID: Not reported  
WDID: 2 011006149  
Program Type: Not reported  
Adoption Date Of Regulatory Measure: Not reported  
Effective Date Of Regulatory Measure: Not reported  
Expiration Date Of Regulatory Measure: Not reported  
Termination Date Of Regulatory Measure: Not reported  
Discharge Name: Not reported  
Discharge Address: Not reported  
Discharge City: Not reported  
Discharge State: Not reported  
Discharge Zip: Not reported  
Received Date: 05/09/2008  
Processed Date: 04/21/1992  
Status: Terminated  
Status Date: 04/21/1992  
Place Size: 6000  
Place Size Unit: SqFt  
Contact: F Scott Jewell  
Contact Title: Not reported  
Contact Phone: 510-471-1415  
Contact Phone Ext: Not reported  
Contact Email: Not reported  
Operator Name: Dave Transportation Services Inc  
Operator Address: 201 Sandpointe Ave Ste 800  
Operator City: Santa Ana  
Operator State: California  
Operator Zip: 92707  
Operator Contact: Beth McCormick  
Operator Contact Title: Not reported  
Operator Contact Phone: 714-549-3283  
Operator Contact Phone Ext: Not reported  
Operator Contact Email: Not reported  
Operator Type: Private Business  
Developer: Not reported  
Developer Address: Not reported  
Developer City: Not reported  
Developer State: California  
Developer Zip: Not reported  
Developer Contact: Not reported  
Developer Contact Title: Not reported  
Constype Linear Utility Ind: Not reported  
Emergency Phone: 510-471-1415  
Emergency Phone Ext: Not reported  
Constype Above Ground Ind: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**DAVE TRANS INC (Continued)**

**S117698616**

Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commercial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	Not reported
Receiving Water Name:	Not reported
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	4119-Local Passenger Transportation, NEC
Secondary Sic:	Not reported
Tertiary Sic:	Not reported

**CIWQS:**

Agency:	Dave Transportation Services Inc
Agency Address:	201 Sandpointe Ave Ste 800, Santa Ana, CA 92707
Place/Project Type:	Industrial - Local Passenger Transportation, NEC
SIC/NAICS:	4119
Region:	2
Program:	INDSTW
Regulatory Measure Status:	Terminated
Regulatory Measure Type:	Storm water industrial
Order Number:	2014-0057-DWQ
WDID:	2 011006149
NPDES Number:	CAS000001
Adoption Date:	Not reported
Effective Date:	04/21/1992
Termination Date:	Not reported
Expiration/Review Date:	Not reported
Design Flow:	Not reported
Major/Minor:	Not reported
Complexity:	Not reported
TTWQ:	Not reported
Enforcement Actions within 5 years:	0
Violations within 5 years:	0
Latitude:	37.5955
Longitude:	-122.01268

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**15**      **1X ALLPOINTS WAREHOUSE**  
**34015 7TH ST**  
**< 1/8**      **UNION CITY, CA 94587**  
**1 ft.**

**HAZNET**      **S112847052**  
**N/A**

**Relative:**      HAZNET:  
**Lower**            Site Name:            1X ALLPOINTS WAREHOUSE  
                          Year:                    1993  
**Actual:**            GEPAID:              CAC000837288  
**64 ft.**                Contact:              COLONIAL FREIGHT SYSTEM  
                          Telephone:            0000000000  
                          Mailing Name:        Not reported  
                          Mailing Address:    34015 7TH ST  
                          Mailing City,St,Zip: UNION CITY, CA 945870000  
                          Gen County:          Not reported  
                          TSD EPA ID:          CAT000646117  
                          TSD County:          Not reported  
                          Tons:                  0.10000000000  
                          CA Waste Code:      352-  
                          Method:                D80-  
                          Facility County:      1

**A16**      **AIR LIQUIDE AMERICA - UNION CITY**  
**700 DECOTO RD**  
**< 1/8**      **UNION CITY, CA 94587**  
**1 ft.**

**TSCA**      **1014197578**  
**N/A**

**Site 11 of 17 in cluster A**

**Relative:**      TSCA:  
**Higher**            Union City, CA 94587  
**Actual:**            Company Name:        Air Liquide America, LP  
**71 ft.**                TSCA Address:        700 Decoto Rd  
                          TSCA Name:            Air Liquide America - Union City  
                          Manuf./Importer Status: M  
                          Reporting Year:        2006  
                          Site Limited Flag:    N

Chemical Details:  
 U.S. aggregate prod vol: 500 mil to < 1 bil  
 CAS #: 74-86-2  
 Chemical name: Ethyne  
 Has commer. use data: Yes  
 Has indust. use data: Yes  
 Max concentration code: M5  
 Number of sites: 1000 or greater  
 Number of workers: 1000 or greater  
 Physical form: Gas or Vapor, Liquid

Industrial Details:  
 CAS #: 74-86-2  
 Indust. function categ.: CBI  
 NAICS code: CBI  
 Process code: CBI

CAS #: 74-86-2  
 Indust. function categ.: NRO  
 NAICS code: NRO  
 Process code: NRO

CAS #: 74-86-2

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**AIR LIQUIDE AMERICA - UNION CITY (Continued)**

**1014197578**

Indust. function categ.:	U14
NAICS code:	NRO
Process code:	NRO
CAS #:	74-86-2
Indust. function categ.:	U16
NAICS code:	NRO
Process code:	NRO
CAS #:	74-86-2
Indust. function categ.:	U16
NAICS code:	32519
Process code:	PC
CAS #:	74-86-2
Indust. function categ.:	U33
NAICS code:	32519
Process code:	PC
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	32512
Process code:	PK
CAS #:	74-86-2
Indust. function categ.:	U33
NAICS code:	32512
Process code:	PK
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	11191
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	11199
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	21211
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	21223
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	21233
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	22111

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**AIR LIQUIDE AMERICA - UNION CITY (Continued)**

**1014197578**

Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	22112
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	22131
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	23621
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	23622
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	23711
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	23712
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	23731
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	23812
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	23821
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	23822
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	23899
Process code:	U

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**AIR LIQUIDE AMERICA - UNION CITY (Continued)**

**1014197578**

CAS #: 74-86-2  
Indust. function categ.: U14  
NAICS code: 32121  
Process code: U

CAS #: 74-86-2  
Indust. function categ.: U14  
NAICS code: 32411  
Process code: U

CAS #: 74-86-2  
Indust. function categ.: U14  
NAICS code: 32511  
Process code: U

CAS #: 74-86-2  
Indust. function categ.: U14  
NAICS code: 32512  
Process code: U

CAS #: 74-86-2  
Indust. function categ.: U33  
NAICS code: 32512  
Process code: U

CAS #: 74-86-2  
Indust. function categ.: U14  
NAICS code: 32552  
Process code: U

CAS #: 74-86-2  
Indust. function categ.: U16  
NAICS code: 32599  
Process code: U

CAS #: 74-86-2  
Indust. function categ.: U14  
NAICS code: 32721  
Process code: U

CAS #: 74-86-2  
Indust. function categ.: U14  
NAICS code: 32732  
Process code: U

CAS #: 74-86-2  
Indust. function categ.: U14  
NAICS code: 32733  
Process code: U

CAS #: 74-86-2  
Indust. function categ.: U14  
NAICS code: 32739  
Process code: U

CAS #: 74-86-2  
Indust. function categ.: U14



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**AIR LIQUIDE AMERICA - UNION CITY (Continued)**

**1014197578**

NAICS code:	33121
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	33131
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	33149
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	33151
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	33231
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	33241
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	33261
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	33271
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	33272
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	33281
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	33299
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	33312
Process code:	U

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**AIR LIQUIDE AMERICA - UNION CITY (Continued)**

**1014197578**

CAS #: 74-86-2  
Indust. function categ.: U14  
NAICS code: 33313  
Process code: U

CAS #: 74-86-2  
Indust. function categ.: U14  
NAICS code: 33329  
Process code: U

CAS #: 74-86-2  
Indust. function categ.: U14  
NAICS code: 33351  
Process code: U

CAS #: 74-86-2  
Indust. function categ.: U14  
NAICS code: 33391  
Process code: U

CAS #: 74-86-2  
Indust. function categ.: U14  
NAICS code: 33392  
Process code: U

CAS #: 74-86-2  
Indust. function categ.: U14  
NAICS code: 33399  
Process code: U

CAS #: 74-86-2  
Indust. function categ.: U14  
NAICS code: 33451  
Process code: U

CAS #: 74-86-2  
Indust. function categ.: U14  
NAICS code: 33552  
Process code: U

CAS #: 74-86-2  
Indust. function categ.: U14  
NAICS code: 33591  
Process code: U

CAS #: 74-86-2  
Indust. function categ.: U14  
NAICS code: 33611  
Process code: U

CAS #: 74-86-2  
Indust. function categ.: U14  
NAICS code: 33631  
Process code: U

CAS #: 74-86-2  
Indust. function categ.: U14

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**AIR LIQUIDE AMERICA - UNION CITY (Continued)**

**1014197578**

NAICS code:	33635
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	33636
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	33637
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	33639
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	33651
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	33999
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	42314
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	42351
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	42372
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	42373
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	42381
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	42382
Process code:	U

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**AIR LIQUIDE AMERICA - UNION CITY (Continued)**

**1014197578**

CAS #: 74-86-2  
Indust. function categ.: U14  
NAICS code: 42383  
Process code: U

CAS #: 74-86-2  
Indust. function categ.: U14  
NAICS code: 42384  
Process code: U

CAS #: 74-86-2  
Indust. function categ.: U14  
NAICS code: 42385  
Process code: U

CAS #: 74-86-2  
Indust. function categ.: U14  
NAICS code: 42386  
Process code: U

CAS #: 74-86-2  
Indust. function categ.: U14  
NAICS code: 42393  
Process code: U

CAS #: 74-86-2  
Indust. function categ.: U14  
NAICS code: 42469  
Process code: U

CAS #: 74-86-2  
Indust. function categ.: U14  
NAICS code: 42512  
Process code: U

CAS #: 74-86-2  
Indust. function categ.: U14  
NAICS code: 44131  
Process code: U

CAS #: 74-86-2  
Indust. function categ.: U14  
NAICS code: 44413  
Process code: U

CAS #: 74-86-2  
Indust. function categ.: U14  
NAICS code: 48211  
Process code: U

CAS #: 74-86-2  
Indust. function categ.: U14  
NAICS code: 48511  
Process code: U

CAS #: 74-86-2  
Indust. function categ.: U14

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**AIR LIQUIDE AMERICA - UNION CITY (Continued)**

**1014197578**

NAICS code:	48831
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	48832
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	49313
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	49319
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	54138
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	54171
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	56291
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	61111
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	61131
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	61151
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	81131
Process code:	U
CAS #:	74-86-2
Indust. function categ.:	U14
NAICS code:	NRO
Process code:	U

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**AIR LIQUIDE AMERICA - UNION CITY (Continued)**

**1014197578**

Products Details:

CAS #:	74-86-2
Used for children.:	No
Max concentration:	M5
Product category:	C20
CAS #:	74-86-2
Used for children.:	No
Max concentration:	M5
Product category:	NRO
CAS #:	74-86-2
Used for children.:	NRO
Max concentration:	M5
Product category:	NRO
CAS #:	74-86-2
Used for children.:	No
Max concentration:	NRO
Product category:	NRO
CAS #:	74-86-2
Used for children.:	NRO
Max concentration:	NRO
Product category:	NRO

**A17**      **AIR LIQUIDE AMERICA CORPORATIO**  
**700 DECOTO ROAD**  
**< 1/8**      **UNION CITY, CA 94587**  
**1 ft.**  
  
**Site 12 of 17 in cluster A**

**CPS-SLIC**      **1000425118**  
**SWEEPS UST**      **CAD981424245**  
**HIST UST**  
**CHMIRS**  
**RCRA NonGen / NLR**  
**FINDS**  
**EMI**  
**HAZNET**  
**NPDES**  
**CIWQS**  
**CERS**

**Relative:**  
**Higher**  
  
**Actual:**  
**71 ft.**

**CPS-SLIC:**

Site Name:	LIQUID AIR CORPORATION
Region:	STATE
<b>Facility Status:</b>	<b>Open - Remediation</b>
Status Date:	06/01/1991
Global Id:	T0600191503
Lead Agency:	ALAMEDA COUNTY WATER DISTRICT
Lead Agency Case Number:	0202
Latitude:	37.596703
Longitude:	-122.017174
Case Type:	Cleanup Program Site
Case Worker:	RS
Local Agency:	ALAMEDA COUNTY WATER DISTRICT
RB Case Number:	01S0148
File Location:	All Files are on GeoTracker or in the Local Agency Database
Potential Media Affected:	Other Groundwater (uses other than drinking water), Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**AIR LIQUIDE AMERICA CORPORATIO (Continued)**

**1000425118**

[Click here to access the California GeoTracker records for this facility:](#)

**SLIC REG 2:**

Region: 2  
Facility ID: 01S0148  
Facility Status: Remediation Plan  
Date Closed: Not reported  
Local Case #: 0202  
How Discovered: Tank Closure  
Leak Cause: UNK  
Leak Source: UNK  
Date Confirmed: Not reported  
Date Prelim Site Assmnt Workplan Submitted: Not reported  
Date Preliminary Site Assessment Began: Not reported  
Date Pollution Characterization Began: Not reported  
Date Remediation Plan Submitted: 6/1/1991  
Date Remedial Action Underway: Not reported  
Date Post Remedial Action Monitoring Began: Not reported

**SWEEPS UST:**

Status: Not reported  
Comp Number: 8561  
Number: Not reported  
Board Of Equalization: 44-001395  
Referral Date: Not reported  
Action Date: Not reported  
Created Date: Not reported  
Owner Tank Id: Not reported  
SWRCB Tank Id: 01-011-008561-000001  
Tank Status: Not reported  
Capacity: 8000  
Active Date: Not reported  
Tank Use: M.V. FUEL  
STG: PRODUCT  
Content: LEADED  
Number Of Tanks: 2

Status: Not reported  
Comp Number: 8561  
Number: Not reported  
Board Of Equalization: 44-001395  
Referral Date: Not reported  
Action Date: Not reported  
Created Date: Not reported  
Owner Tank Id: Not reported  
SWRCB Tank Id: 01-011-008561-000002  
Tank Status: Not reported  
Capacity: 8000  
Active Date: Not reported  
Tank Use: M.V. FUEL  
STG: PRODUCT  
Content: DIESEL  
Number Of Tanks: Not reported

Status: Active

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**AIR LIQUIDE AMERICA CORPORATIO (Continued)**

**1000425118**

Comp Number: 8561  
Number: 9  
Board Of Equalization: 44-001395  
Referral Date: 07-01-85  
Action Date: Not reported  
Created Date: 02-29-88  
Owner Tank Id: ACETONE TANK  
SWRCB Tank Id: 01-011-008561-000003  
Tank Status: A  
Capacity: 1500  
Active Date: 10-23-90  
Tank Use: CHEMICAL  
STG: P  
Content: UNKNOWN  
Number Of Tanks: 1

**HIST UST:**

File Number: 000360E7  
URL: <http://geotracker.waterboards.ca.gov/ustpdfs/pdf/000360E7.pdf>  
Region: STATE  
Facility ID: 00000008561  
Facility Type: Other  
Other Type: FILLING INDUSTRIAL G  
Contact Name: JACK SMITH  
Telephone: 4154716282  
Owner Name: LIQUID AIR CORPORATION, INDUST  
Owner Address: ONE EMBARCADERO CENTER  
Owner City,St,Zip: SAN FRANCISCO, CA 94111  
Total Tanks: 0004

Tank Num: 001  
Container Num: 01  
Year Installed: 1973  
Tank Capacity: 00008000  
Tank Used for: PRODUCT  
Type of Fuel: REGULAR  
Container Construction Thickness: Not reported  
Leak Detection: None

Tank Num: 002  
Container Num: 02  
Year Installed: 1973  
Tank Capacity: 00008000  
Tank Used for: PRODUCT  
Type of Fuel: DIESEL  
Container Construction Thickness: Not reported  
Leak Detection: None

Tank Num: 003  
Container Num: 03  
Year Installed: 1970  
Tank Capacity: 00005000  
Tank Used for: PRODUCT  
Type of Fuel: Not reported  
Container Construction Thickness: 1/4  
Leak Detection: Groundwater Monitoring Well



Map ID  
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Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
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**AIR LIQUIDE AMERICA CORPORATIO (Continued)**

**1000425118**

Tank Num: 004  
Container Num: 04  
Year Installed: 1970  
Tank Capacity: 00000500  
Tank Used for: PRODUCT  
Type of Fuel: Not reported  
Container Construction Thickness: 6  
Leak Detection: None

[Click here for Geo Tracker PDF:](#)

**CHMIRS:**

OES Incident Number: 08-4505  
OES notification: 06/24/2008  
OES Date: Not reported  
OES Time: Not reported  
**Date Completed: Not reported**  
Property Use: Not reported  
Agency Id Number: Not reported  
Agency Incident Number: Not reported  
Time Notified: Not reported  
Time Completed: Not reported  
Surrounding Area: Not reported  
Estimated Temperature: Not reported  
Property Management: Not reported  
More Than Two Substances Involved?: Not reported  
Resp Agncy Personel # Of Decontaminated: Not reported  
Responding Agency Personel # Of Injuries: Not reported  
Responding Agency Personel # Of Fatalities: Not reported  
Others Number Of Decontaminated: Not reported  
Others Number Of Injuries: Not reported  
Others Number Of Fatalities: Not reported  
Vehicle Make/year: Not reported  
Vehicle License Number: Not reported  
Vehicle State: Not reported  
Vehicle Id Number: Not reported  
CA DOT PUC/ICC Number: Not reported  
Company Name: Not reported  
Reporting Officer Name/ID: Not reported  
Report Date: Not reported  
Facility Telephone: Not reported  
Waterway Involved: No  
Waterway: Not reported  
Spill Site: Merchant/Business  
Cleanup By: Unknown  
Containment: Not reported  
What Happened: Not reported  
Type: Not reported  
Measure: Lbs.  
Other: Not reported  
Date/Time: 1100  
Year: 2008  
Agency: Air Liquide American Specialty Gases  
Incident Date: 6/24/2008  
Admin Agency: Union City Fire Department  
Amount: Not reported  
Contained: Yes

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**AIR LIQUIDE AMERICA CORPORATIO (Continued)**

**1000425118**

Site Type: Not reported  
E Date: Not reported  
Substance: Hydrogen  
Quantity Released: 5.7  
Unknown: Not reported  
Substance #2: Not reported  
Substance #3: Not reported  
Evacuations: 0  
Number of Injuries: 0  
Number of Fatalities: 0  
#1 Pipeline: Not reported  
#2 Pipeline: Not reported  
#3 Pipeline: Not reported  
#1 Vessel >= 300 Tons: Not reported  
#2 Vessel >= 300 Tons: Not reported  
#3 Vessel >= 300 Tons: Not reported  
Evacs: Not reported  
Injuries: Not reported  
Fataals: Not reported  
Comments: Not reported  
Description: Caller states that they were refilling a trailer when the safety valve lifted and released the gas into the atmosphere.

**RCRA NonGen / NLR:**

Date form received by agency: 07/21/1994  
Facility name: UNION CITY ASP AND ACETYLENE  
Facility address: 700 DECOTO RD  
UNION CITY, CA 94587-3513  
EPA ID: CAD981424245  
Contact: TIMOTHY CHILDS  
Contact address: PO BOX 3047  
HOUSTON, TX 77253-3047  
Contact country: US  
Contact telephone: 713-896-2347  
Contact email: Not reported  
EPA Region: 09  
Classification: Non-Generator  
Description: Handler: Non-Generators do not presently generate hazardous waste

**Owner/Operator Summary:**

Owner/operator name: NOT REQUIRED  
Owner/operator address: NOT REQUIRED  
NOT REQUIRED, ME 99999  
Owner/operator country: Not reported  
Owner/operator telephone: 415-555-1212  
Owner/operator email: Not reported  
Owner/operator fax: Not reported  
Owner/operator extension: Not reported  
Legal status: Private  
Owner/Operator Type: Operator  
Owner/Op start date: Not reported  
Owner/Op end date: Not reported  
Owner/operator name: AIR LIQUIDE AMERICA CORP  
Owner/operator address: PO BOX 3047

Map ID  
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MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**AIR LIQUIDE AMERICA CORPORATIO (Continued)**

**1000425118**

HOUSTON, TX 77253  
Owner/operator country: Not reported  
Owner/operator telephone: 713-868-0333  
Owner/operator email: Not reported  
Owner/operator fax: Not reported  
Owner/operator extension: Not reported  
Legal status: Private  
Owner/Operator Type: Owner  
Owner/Op start date: Not reported  
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): No  
Recycler of hazardous waste: No  
Transporter of hazardous waste: No  
Treater, storer or disposer of HW: No  
Underground injection activity: No  
On-site burner exemption: No  
Furnace exemption: No  
Used oil fuel burner: No  
Used oil processor: No  
User oil refiner: No  
Used oil fuel marketer to burner: No  
Used oil Specification marketer: No  
Used oil transfer facility: No  
Used oil transporter: No

Violation Status: No violations found

**FINDS:**

Registry ID: 110055772560

Environmental Interest/Information System

AIR EMISSIONS CLASSIFICATION UNKNOWN

TSCA SUBMITTER

US EPA TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.

HAZARDOUS AIR POLLUTANT MAJOR

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

STATE MASTER

ICIS (Integrated Compliance Information System) is the Integrated Compliance Information System and provides a database that, when

Map ID  
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MAP FINDINGS

Site

Database(s)

EDR ID Number  
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**AIR LIQUIDE AMERICA CORPORATIO (Continued)**

**1000425118**

complete, will contain integrated Enforcement and Compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional offices and its Headquarters. A future release of ICIS will replace the Permit Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include; Incident Tracking, Compliance Assistance, and Compliance Monitoring.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

**EMI:**

Year: 2004  
County Code: 1  
Air Basin: SF  
Facility ID: 4745  
Air District Name: BA  
SIC Code: 2813  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0.148  
Reactive Organic Gases Tons/Yr: 0.1411304  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smllr Tons/Yr:0

Year: 2005  
County Code: 1  
Air Basin: SF  
Facility ID: 4745  
Air District Name: BA  
SIC Code: 2813  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: .148  
Reactive Organic Gases Tons/Yr: .1411304  
Carbon Monoxide Emissions Tons/Yr: .001  
NOX - Oxides of Nitrogen Tons/Yr: .002  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smllr Tons/Yr:0

Year: 2006  
County Code: 1  
Air Basin: SF  
Facility ID: 4745  
Air District Name: BA

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**AIR LIQUIDE AMERICA CORPORATIO (Continued)**

1000425118

SIC Code: 2813  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: .238  
Reactive Organic Gases Tons/Yr: .2261444  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2007  
County Code: 1  
Air Basin: SF  
Facility ID: 4745  
Air District Name: BA  
SIC Code: 2813  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: .23  
Reactive Organic Gases Tons/Yr: .2181444  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

**HAZNET:**

Site Name: AIRGAS USA LLC  
Year: 2017  
GEPaid: CAL000420474  
Contact: CHAD BEAUCHAMP  
Telephone: 5104294247  
Mailing Name: Not reported  
Mailing Address: 700 DECOTO RD  
Mailing City,St,Zip: UNION CITY, CA 94587  
Gen County: Alameda  
TSD EPA ID: CAD097030993  
TSD County: Los Angeles  
Tons: 0.1  
CA Waste Code: 181-Other inorganic solid waste  
Method: H141-Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery  
(H010-H129) Or (H131-H135)  
Facility County: Alameda

Site Name: AIRGAS USA LLC  
Year: 2017  
GEPaid: CAL000420474  
Contact: CHAD BEAUCHAMP  
Telephone: 5104294247  
Mailing Name: Not reported  
Mailing Address: 700 DECOTO RD  
Mailing City,St,Zip: UNION CITY, CA 94587  
Gen County: Alameda  
TSD EPA ID: CAD059494310

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**AIR LIQUIDE AMERICA CORPORATIO (Continued)**

**1000425118**

TSD County: Santa Clara  
Tons: 0.0025  
CA Waste Code: 551-Laboratory waste chemicals  
Method: H141-Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery  
(H010-H129) Or (H131-H135)  
Facility County: Alameda

Site Name: AIRGAS USA LLC  
Year: 2017  
GEPaid: CAL000420474  
Contact: CHAD BEAUCHAMP  
Telephone: 5104294247  
Mailing Name: Not reported  
Mailing Address: 700 DECOTO RD  
Mailing City,St,Zip: UNION CITY, CA 94587  
Gen County: Alameda  
TSD EPA ID: CAD008302903  
TSD County: Los Angeles  
Tons: 0.1625  
CA Waste Code: 221-Waste oil and mixed oil  
Method: H141-Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery  
(H010-H129) Or (H131-H135)  
Facility County: Alameda

**NPDES:**

Facility Status: Not reported  
NPDES Number: Not reported  
Region: Not reported  
Agency Number: Not reported  
Regulatory Measure ID: Not reported  
Place ID: Not reported  
Order Number: Not reported  
WDID: 2 011000388  
Regulatory Measure Type: Industrial  
Program Type: Not reported  
Adoption Date Of Regulatory Measure: Not reported  
Effective Date Of Regulatory Measure: Not reported  
Termination Date Of Regulatory Measure: Not reported  
Expiration Date Of Regulatory Measure: Not reported  
Discharge Address: Not reported  
Discharge Name: Not reported  
Discharge City: Not reported  
Discharge State: Not reported  
Discharge Zip: Not reported  
Status: Terminated  
Status Date: 10/07/2015  
Operator Name: Air Liquide America Speciality Gases LLC  
Operator Address: 700 Decoto Rd  
Operator City: Union City  
Operator State: California  
Operator Zip: 94587

**NPDES as of 03/2018:**

NPDES Number: Not reported  
Status: Not reported  
Agency Number: Not reported  
Region: 2

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**AIR LIQUIDE AMERICA CORPORATIO (Continued)**

**1000425118**

Regulatory Measure ID: 180606  
Order Number: Not reported  
Regulatory Measure Type: Industrial  
Place ID: Not reported  
WDID: 2 01I000388  
Program Type: Not reported  
Adoption Date Of Regulatory Measure: Not reported  
Effective Date Of Regulatory Measure: Not reported  
Expiration Date Of Regulatory Measure: Not reported  
Termination Date Of Regulatory Measure: 10/07/2015  
Discharge Name: Not reported  
Discharge Address: Not reported  
Discharge City: Not reported  
Discharge State: Not reported  
Discharge Zip: Not reported  
Received Date: 05/09/2008  
Processed Date: 03/11/1992  
Status: Terminated  
Status Date: 10/07/2015  
Place Size: 6  
Place Size Unit: Acres  
Contact: Chad Beauchamp  
Contact Title: Not reported  
Contact Phone: 510-429-4216  
Contact Phone Ext: Not reported  
Contact Email: chad.beauchamp@airliquide.com  
Operator Name: Air Liquide America Speciality Gases LLC  
Operator Address: 700 Decoto Rd  
Operator City: Union City  
Operator State: California  
Operator Zip: 94587  
Operator Contact: Chad Beauchamp  
Operator Contact Title: Not reported  
Operator Contact Phone: 510-429-4216  
Operator Contact Phone Ext: Not reported  
Operator Contact Email: chad.beauchamp@airliquide.com  
Operator Type: Private Business  
Developer: Not reported  
Developer Address: Not reported  
Developer City: Not reported  
Developer State: California  
Developer Zip: Not reported  
Developer Contact: Not reported  
Developer Contact Title: Not reported  
Constype Linear Utility Ind: Not reported  
Emergency Phone: 510-429-4247  
Emergency Phone Ext: Not reported  
Constype Above Ground Ind: Not reported  
Constype Below Ground Ind: Not reported  
Constype Cable Line Ind: Not reported  
Constype Comm Line Ind: Not reported  
Constype Commercial Ind: Not reported  
Constype Electrical Line Ind: Not reported  
Constype Gas Line Ind: Not reported  
Constype Industrial Ind: Not reported  
Constype Other Description: Not reported  
Constype Other Ind: Not reported

Map ID  
Direction  
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**AIR LIQUIDE AMERICA CORPORATIO (Continued)**

**1000425118**

Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	N
Receiving Water Name:	Alameda Creek
Certifier:	Chad Beauchamp
Certifier Title:	Plant Manager
Certification Date:	11-AUG-15
Primary Sic:	2813-Industrial Gases
Secondary Sic:	Not reported
Tertiary Sic:	Not reported
NPDES Number:	CAS000001
Status:	Terminated
Agency Number:	0
Region:	2
Regulatory Measure ID:	180606
Order Number:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place ID:	Not reported
WDID:	2 011000388
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	03/11/1992
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	10/07/2015
Discharge Name:	Air Liquide America Speciality Gases LLC
Discharge Address:	700 Decoto Rd
Discharge City:	Union City
Discharge State:	California
Discharge Zip:	94587
Received Date:	Not reported
Processed Date:	Not reported
Status:	Not reported
Status Date:	Not reported
Place Size:	Not reported
Place Size Unit:	Not reported
Contact:	Not reported
Contact Title:	Not reported
Contact Phone:	Not reported
Contact Phone Ext:	Not reported
Contact Email:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported
Operator Contact:	Not reported
Operator Contact Title:	Not reported
Operator Contact Phone:	Not reported
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported
Operator Type:	Not reported
Developer:	Not reported



Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**AIR LIQUIDE AMERICA CORPORATIO (Continued)**

**1000425118**

Developer Address:	Not reported
Developer City:	Not reported
Developer State:	Not reported
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commercial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	Not reported
Receiving Water Name:	Not reported
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported

**CIWQS:**

Agency:	Air Liquide America Speciality Gases LLC
Agency Address:	700 Decoto Rd, Union City, CA 94587
Place/Project Type:	Industrial - Industrial Gases
SIC/NAICS:	2813
Region:	2
Program:	INDSTW
Regulatory Measure Status:	Terminated
Regulatory Measure Type:	Storm water industrial
Order Number:	2014-0057-DWQ
WDID:	2 01I000388
NPDES Number:	CAS000001
Adoption Date:	Not reported
Effective Date:	03/11/1992
Termination Date:	10/07/2015
Expiration/Review Date:	Not reported
Design Flow:	Not reported
Major/Minor:	Not reported
Complexity:	Not reported
TTWQ:	Not reported
Enforcement Actions within 5 years:	0
Violations within 5 years:	0

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**AIR LIQUIDE AMERICA CORPORATIO (Continued)**

**1000425118**

Latitude: 37.59706  
 Longitude: -122.01799

**CERS TANKS:**

Site ID: 186955  
 CERS ID: T0600191503  
 Site Name: LIQUID AIR CORPORATION  
 CERS Description: Cleanup Program Site

**Affiliation:**

Affiliation Type Desc: Local Agency Caseworker  
 Entity Name: RANGARAJAN SAMPATH - ALAMEDA COUNTY WATER DISTRICT  
 Entity Title: Not reported  
 Affiliation Address: 43885 SOUTH GRIMMER BLVD  
 Affiliation City: FREMONT  
 Affiliation State: CA  
 Affiliation Country: Not reported  
 Affiliation Zip: Not reported  
 Affiliation Phone: Not reported

Affiliation Type Desc: Regional Board Caseworker  
 Entity Name: Cherie McCaulou - SAN FRANCISCO BAY RWQCB (REGION 2)  
 Entity Title: Not reported  
 Affiliation Address: 1515 CLAY STREET, SUITE 1400  
 Affiliation City: OAKLAND  
 Affiliation State: CA  
 Affiliation Country: Not reported  
 Affiliation Zip: Not reported  
 Affiliation Phone: Not reported

**A18 LIQUID AIR CORPORATION  
 700 DECOTO RD  
 UNION CITY, CA**

**RGA LUST S114644316  
 N/A**

< 1/8  
 1 ft.

**Site 13 of 17 in cluster A**

**Relative:  
 Higher**

RGA LUST:

**Actual:  
 71 ft.**

2003	LIQUID AIR CORPORATION	700 DECOTO RD
1996	LIQUID AIR CORPORATION	700 DECOTO RD
1995	LIQUID AIR CORPORATION	700 DECOTO RD
1994	LIQUID AIR CORPORATION	700 DECOTO RD
1993	LIQUID AIR CORPORATION	700 DECOTO RD

**A19 AIR LIQUIDE AMERICA CORP  
 700 DECOTO ROAD  
 UNION CITY, CA 94587**

**TSCA 1016947991  
 N/A**

< 1/8  
 1 ft.

**Site 14 of 17 in cluster A**

**Relative:  
 Higher**

TSCA:

**Actual:  
 71 ft.**

Number Id Code: CASRN  
 Activity: M  
 Imported Lb: 0  
 Imported Never At Site: Not reported  
 Volume Used: 0

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**AIR LIQUIDE AMERICA CORP (Continued)**

**1016947991**

Volume Exported: 0  
Num Workers: < 10  
Max Concentration: 90% +  
Chemical Recycled: NO  
Submitter First Name: Donna  
Submitter Middle Initial: M  
Submitter Last Name: Smith  
Submitter Suffix: Not reported  
Submitter Title: Ms.  
Chemical Id Number: 74-86-2  
Stripped Chemical Id Number: 74862  
Chemical Name: Ethyne  
Dom Mfg Lb: CBI  
Physical Forms: GasVapor  
Past Prod Volume: CBI

TSCA Industrial:  
Sector: Not Known or Reasonably Ascertainable  
Function Category: Not Known or Reasonably Ascertainable  
Pct Prod Volume: 100  
Num Sites: 100 - 249  
Num Workers: Not Known or Reasonably Ascertainable

**A20**

**AIR LIQUIDE AMERICA SPECIALTY GASES LLC  
700 DECOTO RD  
UNION CITY, CA 94587**

**HAZNET S113156718  
N/A**

**< 1/8  
1 ft.**

**Site 15 of 17 in cluster A**

**Relative:  
Higher  
Actual:  
71 ft.**

HAZNET:  
Site Name: AIR LIQUIDE AMERICA SPECIALTY GASES LLC  
Year: 2017  
GEPAID: CAL000345224  
Contact: ERIC KLEINSCHMIDT  
Telephone: 9258082606  
Mailing Name: Not reported  
Mailing Address: 700 DECOTO RD  
Mailing City,St,Zip: UNION CITY, CA 945873513  
Gen County: Alameda  
TSD EPA ID: CAD097030993  
TSD County: Los Angeles  
Tons: 0.5  
CA Waste Code: 181-Other inorganic solid waste  
Method: H141-Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery  
(H010-H129) Or (H131-H135)  
Facility County: Alameda

Site Name: AIR LIQUIDE AMERICA SPECIALTY GASES LLC  
Year: 2016  
GEPAID: CAL000345224  
Contact: ERIC KLEINSCHMIDT  
Telephone: 9258082606  
Mailing Name: Not reported  
Mailing Address: 700 DECOTO RD  
Mailing City,St,Zip: UNION CITY, CA 945873513  
Gen County: Alameda  
TSD EPA ID: CAD097030993

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**AIR LIQUIDE AMERICA SPECIALTY GASES LLC (Continued)**

**S113156718**

TSD County: Los Angeles  
Tons: 0.462  
CA Waste Code: 135-  
Method: H141-  
Facility County: Alameda

Site Name: AIR LIQUIDE AMERICA SPECIALTY GASES LLC  
Year: 2016  
GEPaid: CAL000345224  
Contact: ERIC KLEINSCHMIDT  
Telephone: 9258082606  
Mailing Name: Not reported  
Mailing Address: 700 DECOTO RD  
Mailing City,St,Zip: UNION CITY, CA 945873513  
Gen County: Alameda  
TSD EPA ID: CAD097030993  
TSD County: Los Angeles  
Tons: 0.2  
CA Waste Code: 181-  
Method: H141-  
Facility County: Alameda

Site Name: AIR LIQUIDE AMERICA SPECIALTY GASES LLC  
Year: 2015  
GEPaid: CAL000345224  
Contact: ERIC KLEINSCHMIDT  
Telephone: 9258082606  
Mailing Name: Not reported  
Mailing Address: 700 DECOTO RD  
Mailing City,St,Zip: UNION CITY, CA 945873513  
Gen County: Alameda  
TSD EPA ID: CAD097030993  
TSD County: Los Angeles  
Tons: 0.924  
CA Waste Code: 135-  
Method: H141-  
Facility County: Alameda

Site Name: AIR LIQUIDE AMERICA SPECIALTY GASES LLC  
Year: 2015  
GEPaid: CAL000345224  
Contact: ERIC KLEINSCHMIDT  
Telephone: 9258082606  
Mailing Name: Not reported  
Mailing Address: 700 DECOTO RD  
Mailing City,St,Zip: UNION CITY, CA 945873513  
Gen County: Alameda  
TSD EPA ID: CAD097030993  
TSD County: Los Angeles  
Tons: 0.6  
CA Waste Code: 181-  
Method: H141-  
Facility County: Alameda

[Click this hyperlink](#) while viewing on your computer to access 21 additional CA\_HAZNET: record(s) in the EDR Site Report.

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**C21**      **WILD ROSE**  
**33950 SEVENTH ST**  
**UNION CITY, CA 94587**  
 < 1/8  
 1 ft.

**CIWQS**    **S121691648**  
 N/A

**Site 1 of 14 in cluster C**

**Relative:**  
**Higher**  
**Actual:**  
**68 ft.**

**CIWQS:**  
 Agency: Braddock & Logan Group  
 Agency Address: 4155 Blackhawk Plaza Cir Ste 201, Danville, CA 94506  
 Place/Project Type: Construction - Residential, Utility  
 SIC/NAICS: Not reported  
 Region: 2  
 Program: CONSTW  
 Regulatory Measure Status: Terminated  
 Regulatory Measure Type: Storm water construction  
 Order Number: 99-08DW  
 WDID: 2 01C323508  
 NPDES Number: CAS000002  
 Adoption Date: Not reported  
 Effective Date: 09/19/2003  
 Termination Date: 10/25/2005  
 Expiration/Review Date: Not reported  
 Design Flow: Not reported  
 Major/Minor: Not reported  
 Complexity: Not reported  
 TTWQ: Not reported  
 Enforcement Actions within 5 years: 0  
 Violations within 5 years: 0  
 Latitude: 37.597371  
 Longitude: -122.015054

**C22**      **MCKESSON CHEMICAL CO**  
**33950 7TH ST**  
**UNION CITY, CA 94587**  
 < 1/8  
 1 ft.

**HIST UST**    **U001598727**  
 N/A

**Site 2 of 14 in cluster C**

**Relative:**  
**Higher**  
**Actual:**  
**68 ft.**

**HIST UST:**  
 File Number: 0003612A  
 URL: <http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0003612A.pdf>  
 Region: STATE  
 Facility ID: 00000014532  
 Facility Type: Other  
 Other Type: CHEMICAL REPACKAGING  
 Contact Name: KEN WICKS  
 Telephone: 4154891400  
 Owner Name: MCKESSON CORP  
 Owner Address: ONE POST ST.  
 Owner City,St,Zip: SAN FRANCISCO, CA 94104  
 Total Tanks: 0008  
  
 Tank Num: 001  
 Container Num: 87F01  
 Year Installed: 1971  
 Tank Capacity: 00008000  
 Tank Used for: PRODUCT  
 Type of Fuel: UNLEADED  
 Container Construction Thickness: Not reported  
 Leak Detection: Stock Inventor, Groundwater Monitoring Well

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MCKESSON CHEMICAL CO (Continued)**

**U001598727**

Tank Num: 002  
Container Num: 87F02  
Year Installed: 1971  
Tank Capacity: 00008000  
Tank Used for: PRODUCT  
Type of Fuel: DIESEL  
Container Construction Thickness: Not reported  
Leak Detection: Stock Inventor, Groundwater Monitoring Well

Tank Num: 003  
Container Num: 87SU04  
Year Installed: 1978  
Tank Capacity: 00010000  
Tank Used for: PRODUCT  
Type of Fuel: Not reported  
Container Construction Thickness: 3/8  
Leak Detection: Stock Inventor, Groundwater Monitoring Well

Tank Num: 004  
Container Num: 87SU05  
Year Installed: 1978  
Tank Capacity: 00010000  
Tank Used for: PRODUCT  
Type of Fuel: Not reported  
Container Construction Thickness: 3/8  
Leak Detection: Stock Inventor, Groundwater Monitoring Well

Tank Num: 005  
Container Num: 87SU07  
Year Installed: 1978  
Tank Capacity: 00010000  
Tank Used for: PRODUCT  
Type of Fuel: Not reported  
Container Construction Thickness: 3/8  
Leak Detection: Stock Inventor, Groundwater Monitoring Well

Tank Num: 006  
Container Num: 87SU06  
Year Installed: 1978  
Tank Capacity: 00010000  
Tank Used for: PRODUCT  
Type of Fuel: Not reported  
Container Construction Thickness: 3/8  
Leak Detection: Stock Inventor, Groundwater Monitoring Well

Tank Num: 007  
Container Num: 8701  
Year Installed: 1971  
Tank Capacity: 00002000  
Tank Used for: WASTE  
Type of Fuel: Not reported  
Container Construction Thickness: 6  
Leak Detection: Visual, Groundwater Monitoring Well

Tank Num: 008  
Container Num: 8702  
Year Installed: 1984

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MCKESSON CHEMICAL CO (Continued)**

**U001598727**

Tank Capacity: 00001000  
Tank Used for: WASTE  
Type of Fuel: Not reported  
Container Construction Thickness: 8  
Leak Detection: Visual, Sensor Instrument, Groundwater Monitoring Well

[Click here for Geo Tracker PDF:](#)

**C23**

**FOREMOST MCKESSON CO**  
**33950 7TH ST**  
**UNION CITY, CA 94587**

**SEMS-ARCHIVE 1000206100**  
**CORRACTS CAD073934903**  
**RCRA-TSDF**  
**RCRA-SQG**  
**FINDS**  
**ECHO**

< 1/8  
1 ft.

**Site 3 of 14 in cluster C**

**Relative:  
Higher**

**Actual:  
68 ft.**

SEMS Archive:  
Site ID: 0901573  
EPA ID: CAD073934903  
Cong District: 10  
FIPS Code: 06001  
FF: N  
NPL: Not on the NPL  
Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information

**SEMS Archive Detail:**

Region: 09  
Site ID: 0901573  
EPA ID: CAD073934903  
Site Name: FOREMOST MCKESSON CO  
NPL: N  
FF: N  
OU: 00  
Action Code: VS  
Action Name: ARCH SITE  
SEQ: 1  
Start Date: Not reported  
Finish Date: 1985-09-01 05:00:00  
Qual: Not reported  
Current Action Lead: EPA Perf In-Hse

Region: 09  
Site ID: 0901573  
EPA ID: CAD073934903  
Site Name: FOREMOST MCKESSON CO  
NPL: N  
FF: N  
OU: 00  
Action Code: PA  
Action Name: PA  
SEQ: 1  
Start Date: 1985-03-01 06:00:00  
Finish Date: 1985-06-01 05:00:00  
Qual: H  
Current Action Lead: EPA Perf

Region: 09  
Site ID: 0901573  
EPA ID: CAD073934903

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FOREMOST MCKESSON CO (Continued)**

**1000206100**

Site Name: FOREMOST MCKESSON CO  
NPL: N  
FF: N  
OU: 00  
Action Code: DS  
Action Name: DISCVRY  
SEQ: 1  
Start Date: 1980-08-01 04:00:00  
Finish Date: 1980-08-01 04:00:00  
Qual: Not reported  
Current Action Lead: EPA Perf

Region: 09  
Site ID: 0901573  
EPA ID: CAD073934903  
Site Name: FOREMOST MCKESSON CO  
NPL: N  
FF: N  
OU: 00  
Action Code: SI  
Action Name: SI  
SEQ: 1  
Start Date: Not reported  
Finish Date: 1985-09-01 05:00:00  
Qual: N  
Current Action Lead: EPA Perf

**CORRACTS:**

EPA ID: CAD073934903  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 20001228  
Action: CA750YE - Migration of Contaminated Groundwater under Control, Yes, Migration of Contaminated Groundwater Under Control has been verified  
NAICS Code(s): 325188  
All Other Basic Inorganic Chemical Manufacturing  
Original schedule date: 20001228  
Schedule end date: Not reported

EPA ID: CAD073934903  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 20001228  
Action: CA725YE - Current Human Exposures Under Control, Yes, Current Human Exposures Under Control has been verified  
NAICS Code(s): 325188  
All Other Basic Inorganic Chemical Manufacturing  
Original schedule date: 20001228  
Schedule end date: Not reported

EPA ID: CAD073934903  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19940810  
Action: CA225NR - Stabilization Measures Evaluation, This facility is, not amenable to stabilization activity at the, present time for reasons



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FOREMOST MCKESSON CO (Continued)**

**1000206100**

other than (1) it appears to be technically, infeasible or inappropriate (NF) or (2) there is a lack of technical, information (IN). Reasons for this conclusion may be the status of, closure at the facility, the degree of risk, timing considerations, the status of corrective action work at the facility, or other, administrative considerations

NAICS Code(s): 325188  
All Other Basic Inorganic Chemical Manufacturing

Original schedule date: 19940810  
Schedule end date: Not reported

EPA ID: CAD073934903  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19890714  
Action: CA050 - RFA Completed  
NAICS Code(s): 325188  
All Other Basic Inorganic Chemical Manufacturing

Original schedule date: 19890714  
Schedule end date: Not reported

EPA ID: CAD073934903  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19890714  
Action: CA200 - RFI Approved  
NAICS Code(s): 325188  
All Other Basic Inorganic Chemical Manufacturing

Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD073934903  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19880630  
Action: CA150 - RFI Workplan Approved  
NAICS Code(s): 325188  
All Other Basic Inorganic Chemical Manufacturing

Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD073934903  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19851031  
Action: CA600SR - Stabilization Measures Implemented, Primary measure is source removal and/or treatment  
NAICS Code(s): 325188  
All Other Basic Inorganic Chemical Manufacturing

Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD073934903  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19851001  
Action: CA600GW - Stabilization Measures Implemented, Groundwater extraction

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FOREMOST MCKESSON CO (Continued)**

**1000206100**

and treatment  
NAICS Code(s): 325188  
All Other Basic Inorganic Chemical Manufacturing  
Original schedule date: Not reported  
Schedule end date: Not reported

**RCRA-TSDF:**

Date form received by agency: 09/01/1996  
Facility name: MCKESSON CHEM CO  
Facility address: 33950 7TH ST  
UNION CITY, CA 94587  
EPA ID: CAD073934903  
Mailing address: 33950 SEVENTH STREET  
UNION CITY, CA 94587  
Contact: Not reported  
Contact address: Not reported  
Contact telephone: Not reported  
Contact country: US  
Contact email: Not reported  
EPA Region: 09  
Land type: Facility is not located on Indian land. Additional information is not known.  
Classification: TSDF  
Description: Handler is engaged in the treatment, storage or disposal of hazardous waste

**Owner/Operator Summary:**

Owner/operator name: NOT REQUIRED  
Owner/operator address: NOT REQUIRED  
NOT REQUIRED, ME 99999  
Owner/operator country: Not reported  
Owner/operator telephone: 415-555-1212  
Owner/operator email: Not reported  
Owner/operator fax: Not reported  
Owner/operator extension: Not reported  
Legal status: Private  
Owner/Operator Type: Owner  
Owner/Op start date: Not reported  
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED  
Owner/operator address: NOT REQUIRED  
NOT REQUIRED, ME 99999  
Owner/operator country: Not reported  
Owner/operator telephone: 415-555-1212  
Owner/operator email: Not reported  
Owner/operator fax: Not reported  
Owner/operator extension: Not reported  
Legal status: Private  
Owner/Operator Type: Operator  
Owner/Op start date: Not reported  
Owner/Op end date: Not reported

**Handler Activities Summary:**

U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): No

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FOREMOST MCKESSON CO (Continued)**

**1000206100**

Recycler of hazardous waste: No  
Transporter of hazardous waste: Yes  
Treater, storer or disposer of HW: No  
Underground injection activity: No  
On-site burner exemption: No  
Furnace exemption: No  
Used oil fuel burner: No  
Used oil processor: No  
User oil refiner: No  
Used oil fuel marketer to burner: No  
Used oil Specification marketer: No  
Used oil transfer facility: No  
Used oil transporter: No

Historical Generators:

Date form received by agency: 09/01/1996  
Site name: MCKESSON CHEM CO  
Classification: Small Quantity Generator

Date form received by agency: 08/18/1980  
Site name: MCKESSON CHEM CO  
Classification: Large Quantity Generator

Corrective Action Summary:

Event date: 06/01/1985  
Event: PA OR CERCLA INSPECTION

Event date: 06/01/1985  
Event: CA PRIORITIZATION-HIGH CA PRIORITY

Event date: 06/01/1985  
Event: LEAD AGENCY DETERMINATION

Event date: 09/01/1985  
Event: PA OR CERCLA INSPECTION

Event date: 10/01/1985  
Event: STABILIZATION/INTERIM MEASURES DECISION-GROUNDWATER EXTRACTION & TREATMENT

Event date: 10/31/1985  
Event: STABILIZATION/INTERIM MEASURES DECISION-PRIMARY MEAS IS SOURCE REMOVL &/OR TRT

Event date: 06/15/1988  
Event: INVESTIGATION IMPOSITION

Event date: 06/15/1988  
Event: CMS IMPOSITION

Event date: 06/30/1988  
Event: INVESTIGATION WORKPLAN APPROVED

Event date: 12/31/1988  
Event: STABILIZATION CONSTRUCTION COMPLETED

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FOREMOST MCKESSON CO (Continued)**

**1000206100**

Event date:	07/14/1989
Event:	INVESTIGATION COMPLETE
Event date:	07/14/1989
Event:	RFA COMPLETED
Event date:	10/01/1989
Event:	HUMAN EXPOSURES CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE
Event date:	10/01/1989
Event:	RELEASE TO GW CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE
Event date:	04/20/1991
Event:	CA PRIORITIZATION-MEDIUM CA PRIORITY
Event date:	08/10/1994
Event:	STABILIZATION MEASURES EVALUATION-FACILITY NOT AMENABLE TO STABILIZATION
Event date:	08/10/1994
Event:	STABILIZATION MEASURES EVALUATION-FACILITY NOT AMENABLE TO STABILIZATION
Event date:	08/10/1994
Event:	CA PRIORITIZATION-MEDIUM CA PRIORITY
Event date:	09/18/1997
Event:	REFERRED TO A NON-RCRA AUTHORITY
Event date:	12/28/2000
Event:	RELEASE TO GW CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE
Event date:	12/28/2000
Event:	RELEASE TO GW CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE
Event date:	12/28/2000
Event:	HUMAN EXPOSURES CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE
Event date:	12/28/2000
Event:	HUMAN EXPOSURES CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE
Event date:	Not reported
Event:	REEVALUATE IN FY

Facility Has Received Notices of Violations:

Regulation violated:	Not reported
Area of violation:	TSD - General
Date violation determined:	06/06/1988
Date achieved compliance:	10/12/1989
Violation lead agency:	State
Enforcement action:	WRITTEN INFORMAL
Enforcement action date:	09/15/1988
Enf. disposition status:	Not reported
Enf. disp. status date:	Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FOREMOST MCKESSON CO (Continued)**

**1000206100**

Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: Not reported  
Area of violation: TSD - General  
Date violation determined: 06/06/1988  
Date achieved compliance: 10/12/1989  
Violation lead agency: State  
Enforcement action: INITIAL 3008(A) COMPLIANCE  
Enforcement action date: 10/12/1989  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: Not reported  
Area of violation: TSD - Financial Requirements  
Date violation determined: 04/13/1988  
Date achieved compliance: 05/10/1988  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 04/21/1988  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Evaluation Action Summary:  
Evaluation date: 06/06/1988  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: TSD - General  
Date achieved compliance: 10/12/1989  
Evaluation lead agency: State

Evaluation date: 06/02/1988  
Evaluation: FINANCIAL RECORD REVIEW  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 04/13/1988  
Evaluation: FINANCIAL RECORD REVIEW  
Area of violation: TSD - Financial Requirements  
Date achieved compliance: 05/10/1988  
Evaluation lead agency: State

RCRA-SQG:  
Date form received by agency: 09/01/1996  
Facility name: MCKESSON CHEM CO  
Facility address: 33950 7TH ST  
UNION CITY, CA 94587

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FOREMOST MCKESSON CO (Continued)**

**1000206100**

EPA ID: CAD073934903  
Mailing address: 33950 SEVENTH STREET  
UNION CITY, CA 94587  
Contact: Not reported  
Contact address: Not reported  
Not reported  
Contact country: US  
Contact telephone: Not reported  
Contact email: Not reported  
EPA Region: 09  
Land type: Facility is not located on Indian land. Additional information is not known.  
Classification: TSDF  
Description: Handler is engaged in the treatment, storage or disposal of hazardous waste

**Owner/Operator Summary:**

Owner/operator name: NOT REQUIRED  
Owner/operator address: NOT REQUIRED  
NOT REQUIRED, ME 99999  
Owner/operator country: Not reported  
Owner/operator telephone: 415-555-1212  
Owner/operator email: Not reported  
Owner/operator fax: Not reported  
Owner/operator extension: Not reported  
Legal status: Private  
Owner/Operator Type: Owner  
Owner/Op start date: Not reported  
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED  
Owner/operator address: NOT REQUIRED  
NOT REQUIRED, ME 99999  
Owner/operator country: Not reported  
Owner/operator telephone: 415-555-1212  
Owner/operator email: Not reported  
Owner/operator fax: Not reported  
Owner/operator extension: Not reported  
Legal status: Private  
Owner/Operator Type: Operator  
Owner/Op start date: Not reported  
Owner/Op end date: Not reported

**Handler Activities Summary:**

U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): No  
Recycler of hazardous waste: No  
Transporter of hazardous waste: Yes  
Treater, storer or disposer of HW: No  
Underground injection activity: No  
On-site burner exemption: No  
Furnace exemption: No  
Used oil fuel burner: No  
Used oil processor: No  
User oil refiner: No  
Used oil fuel marketer to burner: No  
Used oil Specification marketer: No

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FOREMOST MCKESSON CO (Continued)**

**1000206100**

Used oil transfer facility: No  
Used oil transporter: No

Historical Generators:

Date form received by agency: 09/01/1996  
Site name: MCKESSON CHEM CO  
Classification: Small Quantity Generator

Date form received by agency: 08/18/1980  
Site name: MCKESSON CHEM CO  
Classification: Large Quantity Generator

Corrective Action Summary:

Event date: 06/01/1985  
Event: PA OR CERCLA INSPECTION

Event date: 06/01/1985  
Event: CA PRIORITIZATION-HIGH CA PRIORITY

Event date: 06/01/1985  
Event: LEAD AGENCY DETERMINATION

Event date: 09/01/1985  
Event: PA OR CERCLA INSPECTION

Event date: 10/01/1985  
Event: STABILIZATION/INTERIM MEASURES DECISION-GROUNDWATER EXTRACTION & TREATMENT

Event date: 10/31/1985  
Event: STABILIZATION/INTERIM MEASURES DECISION-PRIMARY MEAS IS SOURCE REMOVL &/OR TRT

Event date: 06/15/1988  
Event: INVESTIGATION IMPOSITION

Event date: 06/15/1988  
Event: CMS IMPOSITION

Event date: 06/30/1988  
Event: INVESTIGATION WORKPLAN APPROVED

Event date: 12/31/1988  
Event: STABILIZATION CONSTRUCTION COMPLETED

Event date: 07/14/1989  
Event: INVESTIGATION COMPLETE

Event date: 07/14/1989  
Event: RFA COMPLETED

Event date: 10/01/1989  
Event: HUMAN EXPOSURES CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE

Event date: 10/01/1989

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FOREMOST MCKESSON CO (Continued)**

**1000206100**

Event: RELEASE TO GW CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE

Event date: 04/20/1991  
Event: CA PRIORITIZATION-MEDIUM CA PRIORITY

Event date: 08/10/1994  
Event: STABILIZATION MEASURES EVALUATION-FACILITY NOT AMENABLE TO STABILIZATION

Event date: 08/10/1994  
Event: STABILIZATION MEASURES EVALUATION-FACILITY NOT AMENABLE TO STABILIZATION

Event date: 08/10/1994  
Event: CA PRIORITIZATION-MEDIUM CA PRIORITY

Event date: 09/18/1997  
Event: REFERRED TO A NON-RCRA AUTHORITY

Event date: 12/28/2000  
Event: RELEASE TO GW CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE

Event date: 12/28/2000  
Event: RELEASE TO GW CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE

Event date: 12/28/2000  
Event: HUMAN EXPOSURES CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE

Event date: 12/28/2000  
Event: HUMAN EXPOSURES CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE

Event date: Not reported  
Event: REEVALUATE IN FY

Facility Has Received Notices of Violations:

Regulation violated: Not reported  
Area of violation: TSD - General  
Date violation determined: 06/06/1988  
Date achieved compliance: 10/12/1989  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 09/15/1988  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: Not reported  
Area of violation: TSD - General  
Date violation determined: 06/06/1988  
Date achieved compliance: 10/12/1989  
Violation lead agency: State  
Enforcement action: INITIAL 3008(A) COMPLIANCE



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FOREMOST MCKESSON CO (Continued)**

**1000206100**

Enforcement action date: 10/12/1989  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: Not reported  
Area of violation: TSD - Financial Requirements  
Date violation determined: 04/13/1988  
Date achieved compliance: 05/10/1988  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 04/21/1988  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

**Evaluation Action Summary:**

Evaluation date: 06/06/1988  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: TSD - General  
Date achieved compliance: 10/12/1989  
Evaluation lead agency: State

Evaluation date: 06/02/1988  
Evaluation: FINANCIAL RECORD REVIEW  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 04/13/1988  
Evaluation: FINANCIAL RECORD REVIEW  
Area of violation: TSD - Financial Requirements  
Date achieved compliance: 05/10/1988  
Evaluation lead agency: State

**FINDS:**

Registry ID: 110000609789

**Environmental Interest/Information System**

California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FOREMOST MCKESSON CO (Continued)**

**1000206100**

STATE MASTER

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1000206100  
Registry ID: 110000609789  
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110000609789>

C24

**OXFORD TIRE RECYCLING OF NORTHERN CALIFO**  
33950 SEVENTH STREET  
UNION CITY, CA

RGA LF

S114731160  
N/A

< 1/8  
1 ft.

Site 4 of 14 in cluster C

Relative:  
Higher

RGA LF:

1997 OXFORD TIRE RECYCLING OF NORTHERN CALIFO 33950 SEVENTH STREET  
1996 OXFORD TIRE RECYCLING OF NORTHERN CALIFO 33950 SEVENTH STREET

Actual:  
68 ft.

C25

**MCKESSON CHEMICAL CO.**  
33950 7TH ST  
UNION CITY, CA

RGA LUST

S114649781  
N/A

< 1/8  
1 ft.

Site 5 of 14 in cluster C

Relative:  
Higher

RGA LUST:

1996 MCKESSON CHEMICAL CO. 33950 7TH ST  
1995 MCKESSON CHEMICAL CO. 33950 7TH ST  
1994 MCKESSON CHEMICAL CO. 33950 7TH ST  
1993 MCKESSON CHEMICAL CO. 33950 7TH ST

Actual:  
68 ft.

C26

**FORMER MCKESSON FACILITY**  
33950 SEVENTH  
UNION CITY, CA 94587

Cortese  
ENF  
CIWQS  
CERS

S110733359  
N/A

< 1/8  
1 ft.

Site 6 of 14 in cluster C

Relative:  
Higher

CORTESE:

Region: CORTESE  
Envirostor Id: Not reported  
Global ID: Not reported  
Site/Facility Type: Not reported  
Cleanup Status: Not reported  
Status Date: Not reported  
Site Code: Not reported  
Latitude: Not reported  
Longitude: Not reported  
Owner: Not reported  
Enf Type: Not reported  
Swat R: Not reported  
Flag: CORTESE

Actual:  
68 ft.

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FORMER MCKESSON FACILITY (Continued)**

**S110733359**

Order No: Not reported  
Waste Discharge System No: Not reported  
Effective Date: Not reported  
Region 2: 2  
WID Id: 2 019211N01  
Solid Waste Id No: Not reported  
Waste Management Uit Name: Not reported  
File Name: Cease Desist Orders & Cleanup Abatement Orders

Region: CORTESE  
Envirostor Id: Not reported  
Global ID: Not reported  
Site/Facility Type: Not reported  
Cleanup Status: Not reported  
Status Date: Not reported  
Site Code: Not reported  
Latitude: Not reported  
Longitude: Not reported  
Owner: Not reported  
Enf Type: Not reported  
Swat R: Not reported  
Flag: CORTESE  
Order No: Not reported  
Waste Discharge System No: Not reported  
Effective Date: Not reported  
Region 2: 2  
WID Id: 2 019211002  
Solid Waste Id No: Not reported  
Waste Management Uit Name: Not reported  
File Name: Cease Desist Orders & Cleanup Abatement Orders

**ENF:**

Region: 2  
Facility Id: 202451  
Agency Name: Not reported  
Place Type: Facility  
Place Subtype: Groundwater Cleanup Site  
Facility Type: Industrial  
Agency Type: Not reported  
# Of Agencies: Not reported  
Place Latitude: 37.597371  
Place Longitude: -122.015054  
SIC Code 1: 3674  
SIC Desc 1: Semiconductors and Related Devices  
SIC Code 2: Not reported  
SIC Desc 2: Not reported  
SIC Code 3: Not reported  
SIC Desc 3: Not reported  
NAICS Code 1: Not reported  
NAICS Desc 1: Not reported  
NAICS Code 2: Not reported  
NAICS Desc 2: Not reported  
NAICS Code 3: Not reported  
NAICS Desc 3: Not reported  
# Of Places: 1  
Source Of Facility: Enf Action  
Design Flow: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FORMER MCKESSON FACILITY (Continued)**

**S110733359**

Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	Not reported
Program Category1:	Not reported
Program Category2:	NPDESWW
# Of Programs:	Not reported
WDID:	Not reported
Reg Measure Id:	Not reported
Reg Measure Type:	Not reported
Region:	Not reported
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Not reported
Status Date:	Not reported
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	Not reported
Individual/General:	Not reported
Fee Code:	Not reported
Direction/Voice:	Not reported
Enforcement Id(EID):	224420
Region:	2
Order / Resolution Number:	UNKNOWN
Enforcement Action Type:	13267 Letter
Effective Date:	08/19/1999
Adoption/Issuance Date:	Not reported
Achieve Date:	1999-08-31
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 2 019211002
Description:	Not reported
Program:	NPDESWW
Latest Milestone Completion Date:	1999-08-31
# Of Programs1:	1
Total Assessment Amount:	0
Initial Assessed Amount:	0
Liability \$ Amount:	0

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FORMER MCKESSON FACILITY (Continued)**

**S110733359**

Project \$ Amount:	0
Liability \$ Paid:	0
Project \$ Completed:	0
Total \$ Paid/Completed Amount:	0
Region:	2
Facility Id:	202451
Agency Name:	McKesson Corporation
Place Type:	Facility
Place Subtype:	Groundwater Cleanup Site
Facility Type:	Industrial
Agency Type:	Privately-Owned Business
# Of Agencies:	1
Place Latitude:	37.597371
Place Longitude:	-122.015054
SIC Code 1:	3674
SIC Desc 1:	Semiconductors and Related Devices
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	UNREGS
Program Category1:	UNREGS
Program Category2:	UNREGS
# Of Programs:	1
WDID:	2 019211N01
Reg Measure Id:	162030
Reg Measure Type:	Unregulated
Region:	2
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Never Active
Status Date:	02/21/2013
Effective Date:	Not reported
Expiration/Review Date:	Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FORMER MCKESSON FACILITY (Continued)**

**S110733359**

Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	N
Individual/General:	I
Fee Code:	Not reported
Direction/Voice:	Passive
Enforcement Id(EID):	221607
Region:	2
Order / Resolution Number:	99-071
Enforcement Action Type:	Clean-up and Abatement Order
Effective Date:	09/15/1999
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Active
Title:	Enforcement - 2 019211N01
Description:	SCR ORDER 99-071 IS THE FINAL ORDER FOR THIS SITE
Program:	UNREGS
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0
Initial Assessed Amount:	0
Liability \$ Amount:	0
Project \$ Amount:	0
Liability \$ Paid:	0
Project \$ Completed:	0
Total \$ Paid/Completed Amount:	0
Region:	2
Facility Id:	202451
Agency Name:	McKesson Corporation
Place Type:	Facility
Place Subtype:	Groundwater Cleanup Site
Facility Type:	Industrial
Agency Type:	Privately-Owned Business
# Of Agencies:	1
Place Latitude:	37.597371
Place Longitude:	-122.015054
SIC Code 1:	3674
SIC Desc 1:	Semiconductors and Related Devices
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FORMER MCKESSON FACILITY (Continued)**

**S110733359**

# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	UNREGS
Program Category1:	UNREGS
Program Category2:	UNREGS
# Of Programs:	1
WDID:	2 019211N01
Reg Measure Id:	162030
Reg Measure Type:	Unregulated
Region:	2
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Never Active
Status Date:	02/21/2013
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	N
Individual/General:	I
Fee Code:	Not reported
Direction/Voice:	Passive
Enforcement Id(EID):	220271
Region:	2
Order / Resolution Number:	88-104
Enforcement Action Type:	Clean-up and Abatement Order
Effective Date:	06/15/1988
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 2 019211N01
Description:	SCR-AMENDS TASKS & TASK COMPLETION DEADLINES SPECIFIED BY 86-3, CONSISTENT WITH DISCHR REVISED WKPLN
Program:	UNREGS
Latest Milestone Completion Date:	Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FORMER MCKESSON FACILITY (Continued)**

**S110733359**

# Of Programs1:	1
Total Assessment Amount:	0
Initial Assessed Amount:	0
Liability \$ Amount:	0
Project \$ Amount:	0
Liability \$ Paid:	0
Project \$ Completed:	0
Total \$ Paid/Completed Amount:	0
Region:	2
Facility Id:	202451
Agency Name:	McKesson Corporation
Place Type:	Facility
Place Subtype:	Groundwater Cleanup Site
Facility Type:	Industrial
Agency Type:	Privately-Owned Business
# Of Agencies:	1
Place Latitude:	37.597371
Place Longitude:	-122.015054
SIC Code 1:	3674
SIC Desc 1:	Semiconductors and Related Devices
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	UNREGS
Program Category1:	UNREGS
Program Category2:	UNREGS
# Of Programs:	1
WDID:	2 019211N01
Reg Measure Id:	162030
Reg Measure Type:	Unregulated
Region:	2
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FORMER MCKESSON FACILITY (Continued)**

**S110733359**

Status:	Never Active
Status Date:	02/21/2013
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	N
Individual/General:	I
Fee Code:	Not reported
Direction/Voice:	Passive
Enforcement Id(EID):	219596
Region:	2
Order / Resolution Number:	86-003
Enforcement Action Type:	Clean-up and Abatement Order
Effective Date:	02/19/1986
Adoption/Issuance Date:	Not reported
Achieve Date:	1988-06-15
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 2 019211N01
Description:	SCR-
Program:	UNREGS
Latest Milestone Completion Date:	1988-06-15
# Of Programs1:	1
Total Assessment Amount:	0
Initial Assessed Amount:	0
Liability \$ Amount:	0
Project \$ Amount:	0
Liability \$ Paid:	0
Project \$ Completed:	0
Total \$ Paid/Completed Amount:	0
Region:	2
Facility Id:	202451
Agency Name:	McKesson Corporation
Place Type:	Facility
Place Subtype:	Groundwater Cleanup Site
Facility Type:	Industrial
Agency Type:	Privately-Owned Business
# Of Agencies:	1
Place Latitude:	37.597371
Place Longitude:	-122.015054
SIC Code 1:	3674
SIC Desc 1:	Semiconductors and Related Devices
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FORMER MCKESSON FACILITY (Continued)**

**S110733359**

NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	0.15840000
Threat To Water Quality:	2
Complexity:	B
Pretreatment:	N - POTW does not have EPA approved pretreatment prog.
Facility Waste Type:	Contaminated ground water
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	NPDNONMUNIPRCS
Program Category1:	NPDESWW
Program Category2:	NPDESWW
# Of Programs:	1
WDID:	2 019211002
Reg Measure Id:	372530
Reg Measure Type:	Enrollee
Region:	2
Order #:	R2-2009-0059
Npdes# CA#:	CAG912003
Major-Minor:	Minor
Npdes Type:	Not reported
Reclamation:	N - No
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Historical
Status Date:	09/05/2014
Effective Date:	11/17/2009
Expiration/Review Date:	09/30/2014
Termination Date:	08/24/2014
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	Y
Individual/General:	I
Fee Code:	62 - Treatment system to meet priority pollutant limit Category 1
Direction/Voice:	Passive
Enforcement Id(EID):	388131
Region:	2
Order / Resolution Number:	Not reported
Enforcement Action Type:	Oral Communication
Effective Date:	08/10/2012
Adoption/Issuance Date:	08/10/2012
Achieve Date:	Not reported
Termination Date:	10/30/2012
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Oral Com 08/10/2012 for MCKESSON CORPORATION Attn. Jean. Meshner,

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**FORMER MCKESSON FACILITY (Continued)**

**S110733359**

Director	Director
Description:	Not reported
Program:	NPDNONMUNIPRCS
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0
Initial Assessed Amount:	0
Liability \$ Amount:	0
Project \$ Amount:	0
Liability \$ Paid:	0
Project \$ Completed:	0
Total \$ Paid/Completed Amount:	0
Region:	2
Facility Id:	202451
Agency Name:	McKesson Corporation
Place Type:	Facility
Place Subtype:	Groundwater Cleanup Site
Facility Type:	Industrial
Agency Type:	Privately-Owned Business
# Of Agencies:	1
Place Latitude:	37.597371
Place Longitude:	-122.015054
SIC Code 1:	3674
SIC Desc 1:	Semiconductors and Related Devices
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	0.15840000
Threat To Water Quality:	2
Complexity:	B
Pretreatment:	N - POTW does not have EPA approved pretreatment prog.
Facility Waste Type:	Contaminated ground water
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	NPDNONMUNIPRCS
Program Category1:	NPDESWW
Program Category2:	NPDESWW
# Of Programs:	1
WDID:	2 019211002
Reg Measure Id:	372530
Reg Measure Type:	Enrollee
Region:	2
Order #:	R2-2009-0059
Npdes# CA#:	CAG912003
Major-Minor:	Minor
Npdes Type:	Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FORMER MCKESSON FACILITY (Continued)**

**S110733359**

Reclamation:	N - No
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Historical
Status Date:	09/05/2014
Effective Date:	11/17/2009
Expiration/Review Date:	09/30/2014
Termination Date:	08/24/2014
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	Y
Individual/General:	I
Fee Code:	62 - Treatment system to meet priority pollutant limit Category 1
Direction/Voice:	Passive
Enforcement Id(EID):	387234
Region:	2
Order / Resolution Number:	R2-2013-1003
Enforcement Action Type:	Admin Civil Liability
Effective Date:	01/22/2013
Adoption/Issuance Date:	01/22/2013
Achieve Date:	Not reported
Termination Date:	02/20/2013
ACL Issuance Date:	Not reported
EPL Issuance Date:	01/22/2013
Status:	Historical
Title:	ACL R2-2013-1003 for MCKESSON CORPORATION Attn. Jean. Mesher, Director
Description:	Settlement Agreement and Stipulation for Entry of Order
Program:	NPDNONMUNIPRCS
Latest Milestone Completion Date:	2013-02-20
# Of Programs1:	1
Total Assessment Amount:	15000
Initial Assessed Amount:	15000
Liability \$ Amount:	15000
Project \$ Amount:	0
Liability \$ Paid:	15000
Project \$ Completed:	0
Total \$ Paid/Completed Amount:	15000
Region:	2
Facility Id:	202451
Agency Name:	McKesson Corporation
Place Type:	Facility
Place Subtype:	Groundwater Cleanup Site
Facility Type:	Industrial
Agency Type:	Privately-Owned Business
# Of Agencies:	1
Place Latitude:	37.597371
Place Longitude:	-122.015054
SIC Code 1:	3674
SIC Desc 1:	Semiconductors and Related Devices
SIC Code 2:	Not reported
SIC Desc 2:	Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FORMER MCKESSON FACILITY (Continued)**

**S110733359**

SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	0.15840000
Threat To Water Quality:	2
Complexity:	B
Pretreatment:	N - POTW does not have EPA approved pretreatment prog.
Facility Waste Type:	Contaminated ground water
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	NPDNONMUNIPRCS
Program Category1:	NPDESWW
Program Category2:	NPDESWW
# Of Programs:	1
WDID:	2 019211002
Reg Measure Id:	179981
Reg Measure Type:	Enrollee
Region:	2
Order #:	R2-2004-0055
Npdes# CA#:	CAG912003
Major-Minor:	Minor
Npdes Type:	Not reported
Reclamation:	N - No
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Historical
Status Date:	09/05/2014
Effective Date:	Not reported
Expiration/Review Date:	07/21/2009
Termination Date:	11/16/2009
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	Y
Individual/General:	I
Fee Code:	62 - Treatment system to meet priority pollutant limit Category 1
Direction/Voice:	Passive
Enforcement Id(EID):	224419
Region:	2
Order / Resolution Number:	99-071
Enforcement Action Type:	Clean-up and Abatement Order
Effective Date:	09/15/1999
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FORMER MCKESSON FACILITY (Continued)**

**S110733359**

ACL Issuance Date: Not reported  
EPL Issuance Date: Not reported  
Status: Active  
Title: Enforcement - 2 019211002  
Description: Not reported  
Program: NPDNONMUNIPRCS  
Latest Milestone Completion Date: Not reported  
# Of Programs1: 1  
Total Assessment Amount: 0  
Initial Assessed Amount: 0  
Liability \$ Amount: 0  
Project \$ Amount: 0  
Liability \$ Paid: 0  
Project \$ Completed: 0  
Total \$ Paid/Completed Amount: 0

**CIWQS:**

Agency: McKesson Corporation  
Agency Address: One Post Street 34th Floor, San Francisco, CA 94104  
Place/Project Type: Groundwater Cleanup Site  
SIC/NAICS: 3674  
Region: 2  
Program: NPDNONMUNIPRCS  
Regulatory Measure Status: Active  
Regulatory Measure Type: Enrollee - NPDES  
Order Number: R2-2012-0012  
WDID: 2 019211003  
NPDES Number: CAG912002  
Adoption Date: Not reported  
Effective Date: 08/25/2014  
Termination Date: Not reported  
Expiration/Review Date: 09/01/2022  
Design Flow: Not reported  
Major/Minor: Major, Minor  
Complexity: B  
TTWQ: 2  
Enforcement Actions within 5 years: 0  
Violations within 5 years: 0  
Latitude: 37.597371  
Longitude: -122.015054

**CERS TANKS:**

Site ID: 350431  
CERS ID: 202451  
Site Name: FORMER MCKESSON FACILITY  
CERS Description: NPDES Wastewater and Stormwater

**Violations:**

Site ID: 350431  
Site Name: Former McKesson Facility  
Violation Date: 08-03-2012  
Citation: California Water Code  
Violation Description: Not reported  
Violation Notes: 1,1-Dichloroethylene Daily Maximum limit is 0.11 ug/L and reported value was 1.4 ug/L.  
Violation Division: Water Boards  
Violation Program: NPDNONMUNI

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FORMER MCKESSON FACILITY (Continued)**

**S110733359**

Violation Source: CIWQS

Site ID: 350431  
Site Name: Former McKesson Facility  
Violation Date: 08-03-2012  
Citation: California Water Code  
Violation Description: Not reported  
Violation Notes: 1,1-Dichloroethylene Daily Maximum limit is 0.11 ug/L and reported value was 5.2 ug/L.

Violation Division: Water Boards  
Violation Program: NPDNONMUNI  
Violation Source: CIWQS

Site ID: 350431  
Site Name: Former McKesson Facility  
Violation Date: 08-03-2012  
Citation: California Water Code  
Violation Description: Not reported  
Violation Notes: 1,1-Dichloroethylene Daily Maximum limit is 0.11 ug/L and reported value was 0.8 ug/L.

Violation Division: Water Boards  
Violation Program: NPDNONMUNI  
Violation Source: CIWQS

Site ID: 350431  
Site Name: Former McKesson Facility  
Violation Date: 09-15-1999  
Citation: California Water Code  
Violation Description: Not reported  
Violation Notes: Unauthorized release into groundwater  
Violation Division: Water Boards  
Violation Program: NPDNONMUNI  
Violation Source: CIWQS

Site ID: 350431  
Site Name: Former McKesson Facility  
Violation Date: 07-02-1999  
Citation: California Water Code  
Violation Description: Not reported  
Violation Notes: Untreated water pipeline broken  
Violation Division: Water Boards  
Violation Program: NPDNONMUNI  
Violation Source: CIWQS

Evaluation:  
Eval General Type: Compliance Sampling Inspection  
Eval Date: 02-14-1995  
Violations Found: No  
Eval Type: RWQCB Type A compliance inspection  
Eval Notes: Not reported  
Eval Division: Water Boards  
Eval Program: NPDNONMUNI  
Eval Source: CIWQS

Enforcement Action:  
Site ID: 350431

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FORMER MCKESSON FACILITY (Continued)**

**S110733359**

Site Name: Former McKesson Facility  
Site Address: 33950 SEVENTH  
Site City: UNION CITY  
Site Zip: 94587  
Enf Action Date: 01-22-2013  
Enf Action Type: Administrative Enforcement with Penalty  
Enf Action Description: Administrative Enforcement with Civil Liability (Penalty)  
Enf Action Notes: Not reported  
Enf Action Division: Water Boards  
Enf Action Program: NPDNONMUNI  
Enf Action Source: CIWQS

Site ID: 350431  
Site Name: Former McKesson Facility  
Site Address: 33950 SEVENTH  
Site City: UNION CITY  
Site Zip: 94587  
Enf Action Date: 02-19-1986  
Enf Action Type: Clean-up and Abatement Order  
Enf Action Description: Clean-up and Abatement Order  
Enf Action Notes: Not reported  
Enf Action Division: Water Boards  
Enf Action Program: NPDNONMUNI  
Enf Action Source: CIWQS

Site ID: 350431  
Site Name: Former McKesson Facility  
Site Address: 33950 SEVENTH  
Site City: UNION CITY  
Site Zip: 94587  
Enf Action Date: 06-15-1988  
Enf Action Type: Clean-up and Abatement Order  
Enf Action Description: Clean-up and Abatement Order  
Enf Action Notes: Not reported  
Enf Action Division: Water Boards  
Enf Action Program: NPDNONMUNI  
Enf Action Source: CIWQS

Site ID: 350431  
Site Name: Former McKesson Facility  
Site Address: 33950 SEVENTH  
Site City: UNION CITY  
Site Zip: 94587  
Enf Action Date: 08-10-2012  
Enf Action Type: Oral Communication  
Enf Action Description: Oral Communication  
Enf Action Notes: Not reported  
Enf Action Division: Water Boards  
Enf Action Program: NPDNONMUNI  
Enf Action Source: CIWQS

Site ID: 350431  
Site Name: Former McKesson Facility  
Site Address: 33950 SEVENTH  
Site City: UNION CITY  
Site Zip: 94587  
Enf Action Date: 08-19-1999



Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**FORMER MCKESSON FACILITY (Continued)**

**S110733359**

Enf Action Type: Enforcement Letter (Formal)  
 Enf Action Description: Enforcement Letter Citing Violations and with Required Actions (Formal)  
 Enf Action Notes: Not reported  
 Enf Action Division: Water Boards  
 Enf Action Program: NPDNONMUNI  
 Enf Action Source: CIWQS

Site ID: 350431  
 Site Name: Former McKesson Facility  
 Site Address: 33950 SEVENTH  
 Site City: UNION CITY  
 Site Zip: 94587  
 Enf Action Date: 09-15-1999  
 Enf Action Type: Clean-up and Abatement Order  
 Enf Action Description: Clean-up and Abatement Order  
 Enf Action Notes: Not reported  
 Enf Action Division: Water Boards  
 Enf Action Program: NPDNONMUNI  
 Enf Action Source: CIWQS

Affiliation:  
 Affiliation Type Desc: Regulating  
 Entity Name: San Francisco Bay Regional Water Quality Control Board  
 Entity Title: Not reported  
 Affiliation Address: Not reported  
 Affiliation City: Not reported  
 Affiliation State: Not reported  
 Affiliation Country: Not reported  
 Affiliation Zip: Not reported  
 Affiliation Phone: Not reported

**C27 MCKESSON CHEMICAL FACILITY**  
**33950 7TH ST**  
**UNION CITY, CA**

**CPS-SLIC S106234862**  
**N/A**

< 1/8  
 1 ft.

**Site 7 of 14 in cluster C**

**Relative:** SLIC REG 2:  
**Higher** Region: 2  
**Actual:** Facility ID: 01S0014  
**68 ft.** Facility Status: Remedial action (cleanup) Underway  
 Date Closed: Not reported  
 Local Case #: Not reported  
 How Discovered: PTR  
 Leak Cause: Not reported  
 Leak Source: Not reported  
 Date Confirmed: Not reported  
 Date Prelim Site Assmnt Workplan Submitted: Not reported  
 Date Preliminary Site Assessment Began: Not reported  
 Date Pollution Characterization Began: Not reported  
 Date Remediation Plan Submitted: Not reported  
 Date Remedial Action Underway: Not reported  
 Date Post Remedial Action Monitoring Began: Not reported

MAP FINDINGS

Map ID Direction Distance Elevation	Site	Database(s)	EDR ID Number EPA ID Number
----------------------------------------------	------	-------------	--------------------------------

<b>C28</b>	<b>MCKESSON CHEMICAL COMPANY</b> <b>33950 7TH ST</b> <b>UNION CITY, CA</b>  Site 8 of 14 in cluster C	<b>RGA LUST</b>	<b>S114649782</b> <b>N/A</b>
------------	-------------------------------------------------------------------------------------------------------------------	-----------------	---------------------------------

Relative: Higher  
Actual: 68 ft.

Relative: Higher  
Actual: 68 ft.

Relative: Higher  
Actual: 68 ft.

Relative: Higher  
Actual: 68 ft.

Relative: Higher  
Actual: 68 ft.

Relative: Higher  
Actual: 68 ft.

Relative: Higher  
Actual: 68 ft.

Relative: Higher  
Actual: 68 ft.

<b>C29</b>	<b>FORMER MCKESSON FACILITY</b> <b>33950 SEVENTH</b> <b>UNION CITY, CA 94587</b>  Site 9 of 14 in cluster C	<b>FINDS</b> <b>ECHO</b>	<b>1023278707</b> <b>N/A</b>
------------	-------------------------------------------------------------------------------------------------------------------------	-----------------------------	---------------------------------

Relative: Higher  
Actual: 68 ft.

Relative: Higher  
Actual: 68 ft.

Relative: Higher  
Actual: 68 ft.

Relative: Higher  
Actual: 68 ft.

Relative: Higher  
Actual: 68 ft.

Relative: Higher  
Actual: 68 ft.

Relative: Higher  
Actual: 68 ft.

Relative: Higher  
Actual: 68 ft.

STATE MASTER

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:  
Envid: 1023278707  
Registry ID: 110065692021  
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110065692021>

<b>C30</b>	<b>33950 7TH ST CHEM PKG. &amp; DIST</b> <b>33950 SEVENTH ST</b> <b>UNION CITY, CA 94587</b>  Site 10 of 14 in cluster C	<b>WDS</b>	<b>S103438294</b> <b>N/A</b>
------------	--------------------------------------------------------------------------------------------------------------------------------------	------------	---------------------------------

Relative: Higher  
Actual: 68 ft.

Relative: Higher  
Actual: 68 ft.

Relative: Higher  
Actual: 68 ft.

Relative: Higher  
Actual: 68 ft.

Relative: Higher  
Actual: 68 ft.

Relative: Higher  
Actual: 68 ft.

Relative: Higher  
Actual: 68 ft.

Relative: Higher  
Actual: 68 ft.

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**33950 7TH ST CHEM PKG. & DIST (Continued)**

**S103438294**

Subregion: 2  
 Facility Telephone: 7077752500  
 Facility Contact: Bruce Scheibach (OMEGA)  
 Agency Name: MCKESSON CORPORATION  
 Agency Address: ONE POST STREET 34TH FLOOR  
 Agency City,St,Zip: SAN FRANCISCO 94104  
 Agency Contact: JEAN MESCHER  
 Agency Telephone: 6088484134  
 Agency Type: Private  
 SIC Code: 3674  
 SIC Code 2: Not reported  
 Primary Waste Type: Hazardous/Influent or Solid Wastes that contain toxic, corrosive, ignitable or reactive substances and must be managed according to applicable DOHS standards.  
 Primary Waste: CNWTRS  
 Waste Type2: Not reported  
 Waste2: Contaminated Ground Water  
 Primary Waste Type: Hazardous/Influent or Solid Wastes that contain toxic, corrosive, ignitable or reactive substances and must be managed according to applicable DOHS standards.  
 Secondary Waste: Not reported  
 Secondary Waste Type: Not reported  
 Design Flow: 0  
 Baseline Flow: 0  
 Reclamation: No reclamation requirements associated with this facility.  
 POTW: The POTW Does not have an approved pretreatment program. Some POTWs may have local pretreatment programs that have not been approved by the regional board and/or EPA.  
 Treat To Water: Moderate Threat to Water Quality. A violation could have a major adverse impact on receiving biota, can cause aesthetic impairment to a significant human population, or render unusable a potential domestic or municipal water supply. Awsthetic impairment would include nuisance from a waste treatment facility.  
 Complexity: Category B - Any facility having a physical, chemical, or biological waste treatment system (except for septic systems with subsurface disposal), or any Class II or III disposal site, or facilities without treatment systems that are complex, such as marinas with petroleum products, solid wastes, and sewage pump out facilities.

D31

**RELIANCE AMALCO METAL CENTER**  
**33955 7TH ST**  
**UNION CITY, CA 94587**

**HAZNET S113064335**  
**N/A**

< 1/8  
 1 ft.

**Site 1 of 4 in cluster D**

**Relative:  
 Higher**

HAZNET:  
 Site Name: RELIANCE AMALCO METAL CENTER  
 Year: 1998  
 GEPAID: CAL000113017  
 Contact: DOUG HANSEN  
 Telephone: 8002625261  
 Mailing Name: Not reported  
 Mailing Address: 33201 WESTERN AVE  
 Mailing City,St,Zip: UNION CITY, CA 945873521  
 Gen County: Not reported  
 TSD EPA ID: CAD980887418  
 TSD County: Not reported  
 Tons: 6.8805

**Actual:  
 66 ft.**

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**RELIANCE AMALCO METAL CENTER (Continued)**

**S113064335**

CA Waste Code: 221-  
Method: R01-  
Facility County: 1

Site Name: RELIANCE AMALCO METAL CENTER  
Year: 1997  
GEPaid: CAL000113017  
Contact: DOUG HANSEN  
Telephone: 8002625261  
Mailing Name: Not reported  
Mailing Address: 33201 WESTERN AVE  
Mailing City,St,Zip: UNION CITY, CA 945873521  
Gen County: Not reported  
TSD EPA ID: CAD980887418  
TSD County: Not reported  
Tons: 21.8091  
CA Waste Code: 221-  
Method: R01-  
Facility County: 1

Site Name: RELIANCE AMALCO METAL CENTER  
Year: 1997  
GEPaid: CAL000113017  
Contact: DOUG HANSEN  
Telephone: 8002625261  
Mailing Name: Not reported  
Mailing Address: 33201 WESTERN AVE  
Mailing City,St,Zip: UNION CITY, CA 945873521  
Gen County: Not reported  
TSD EPA ID: CAD980887418  
TSD County: Not reported  
Tons: 2.5020  
CA Waste Code: 221-  
Method: -  
Facility County: 1

Site Name: RELIANCE AMALCO METAL CENTER  
Year: 1996  
GEPaid: CAL000113017  
Contact: DOUG HANSEN  
Telephone: 8002625261  
Mailing Name: Not reported  
Mailing Address: 33201 WESTERN AVE  
Mailing City,St,Zip: UNION CITY, CA 945873521  
Gen County: Not reported  
TSD EPA ID: CAD980887418  
TSD County: Not reported  
Tons: 20.5581  
CA Waste Code: 221-  
Method: R01-  
Facility County: 1

Site Name: RELIANCE AMALCO METAL CENTER  
Year: 1995  
GEPaid: CAL000113017  
Contact: DOUG HANSEN  
Telephone: 8002625261

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**RELiance AMALCO METAL CENTER (Continued)**

**S113064335**

Mailing Name: Not reported  
 Mailing Address: 33201 WESTERN AVE  
 Mailing City,St,Zip: UNION CITY, CA 945873521  
 Gen County: Not reported  
 TSD EPA ID: CAD980887418  
 TSD County: Not reported  
 Tons: 13.0938  
 CA Waste Code: 221-  
 Method: R01-  
 Facility County: 1

[Click this hyperlink](#) while viewing on your computer to access  
 6 additional CA\_HAZNET: record(s) in the EDR Site Report.

**D32**

**R & S MANUFACTURING, INC**

**CERS HAZ WASTE**

**S121775239**

**33955 7TH ST  
 UNION CITY, CA 94587**

**CERS N/A**

**< 1/8  
 1 ft.**

**Site 2 of 4 in cluster D**

**Relative:  
 Higher  
 Actual:  
 66 ft.**

CERS HAZ WASTE:  
 Site ID: 400185  
 CERS ID: 10339291  
 CERS Description: Hazardous Waste Generator

Violations:  
 Site ID: 400185  
 Site Name: R & S Manufacturing, Inc  
 Violation Date: 02-13-2019  
 Citation: HSC 6.5 25144.6 (b) - California Health and Safety Code, Chapter 6.5, Section(s) 25144.6 (b)  
 Violation Description: Failure to properly manage reusable soiled textile materials prior to being sent for laundering.  
 Violation Notes: Not reported  
 Violation Division: Union City Environmental Programs  
 Violation Program: HW  
 Violation Source: CERS

Site ID: 400185  
 Site Name: R & S Manufacturing, Inc  
 Violation Date: 01-08-2016  
 Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)  
 Violation Description: Failure to properly label hazardous waste accumulation containers with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.  
 Violation Notes: Returned to compliance on 01/13/2016. OBSERVATION: The 55-gallon drum of used oil had a hazardous waste label however none of the required information was filled out. All hazardous waste containers shall be marked with the following information: 1) the words "Hazardous Waste?"; 2) name and address of generator; 3) hazardous properties; 4) physical state; 5) composition (contents); 6) accumulation start date.  
 CORRECTIVE ACTION: Immediately label these containers and ensure that all hazardous waste containers are marked with all the required information.  
 Violation Division: Union City Environmental Programs  
 Violation Program: HW

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**R & S MANUFACTURING, INC (Continued)**

**S121775239**

Violation Source: CERS

Site ID: 400185  
Site Name: R & S Manufacturing, Inc  
Violation Date: 02-13-2019  
Citation: HSC 6.95 25508.2 - California Health and Safety Code, Chapter 6.95, Section(s) 25508.2  
Violation Description: Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.  
Violation Notes: Not reported  
Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 400185  
Site Name: R & S Manufacturing, Inc  
Violation Date: 01-08-2016  
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)  
Violation Description: Failure to complete and electronically submit a site map with all required content.  
Violation Notes: Returned to compliance on 01/20/2016. OBSERVATION: The annotated site map has not been completed and submitted to the CUPA via California Environmental Reporting System (CERS). CORRECTIVE ACTION: Complete an annotated site map and submit electronically in the CERS by February 8, 2016.  
Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 400185  
Site Name: R & S Manufacturing, Inc  
Violation Date: 01-08-2016  
Citation: 22 CCR 23 66273.2(b)(2) - California Code of Regulations, Title 22, Chapter 23, Section(s) 66273.2(b)(2)  
Violation Description: Failure to properly manage Mercury and Rechargeable batteries as a universal waste.  
Violation Notes: Returned to compliance on 01/13/2016. OBSERVATION: Universal Waste Handler failed to properly manage Mercury and Rechargeable batteries as a universal waste. Based on discussions with Gordon Ong, some fluorescent bulbs have been disposed of in the debris bin. CORRECTIVE ACTION: Owner/Operator shall immediately ensure proper management of Mercury and Rechargeable batteries in accordance with Title 22 regulations. Fluorescent bulbs are considered Universal Waste and are prohibited from being disposed of with municipal waste.  
Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Site ID: 400185  
Site Name: R & S Manufacturing, Inc  
Violation Date: 01-13-2016  
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)  
Violation Description: Failure to complete and electronically submit a site map with all required content.

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**R & S MANUFACTURING, INC (Continued)**

**S121775239**

Violation Notes: Returned to compliance on 01/13/2016. OBSERVATION: The annotated site map has not been completed and submitted to the CUPA via California Environmental Reporting System (CERS). CORRECTIVE ACTION: Complete an annotated site map and submit electronically in the CERS within 30 days.

Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Evaluation:  
Eval General Type: Compliance Evaluation Inspection  
Eval Date: 01-13-2016  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: All violations were corrected during my follow up visit on 1/13/2016.  
Eval Division: Union City Environmental Programs  
Eval Program: HMRRP  
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 02-13-2019  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Electronic signature not captured. Recent electronic submittal through CERS on 2/2/2019 with prior submittal on 11/2017.  
Eval Division: Union City Environmental Programs  
Eval Program: HMRRP  
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 02-13-2019  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Facility has spent fluorescent bulbs but has been unable to dispose of items. Advised facility of Small Business Owner programs with Alameda County and other disposal programs. Advised facility that used oil rags with free flowing used oil should be handled as hazardous waste and not as ordinary trash.  
Eval Division: Union City Environmental Programs  
Eval Program: HW  
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 01-08-2016  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Routine inspection of the facility, met with Gordon Ong, Facility Manager.  
Eval Division: Union City Environmental Programs  
Eval Program: HMRRP  
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 11-26-2018  
Violations Found: No  
Eval Type: Routine done by local agency  
Eval Notes: TEST

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**R & S MANUFACTURING, INC (Continued)**

**S121775239**

Eval Division: Union City Environmental Programs  
Eval Program: HW  
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 01-08-2016  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Routine inspection of the facility, met with Gordon Ong, Facility Manager. All violations were corrected during my follow up visit on 1/13/2016.

Eval Division: Union City Environmental Programs  
Eval Program: HW  
Eval Source: CERS

**Enforcement Action:**

Site ID: 400185  
Site Name: R & S Manufacturing, Inc  
Site Address: 33955 7TH ST  
Site City: UNION CITY  
Site Zip: 94587  
Enf Action Date: 01-08-2016  
Enf Action Type: Notice of Violation (Unified Program)  
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection  
Enf Action Notes: Not reported  
Enf Action Division: Union City Environmental Programs  
Enf Action Program: HMRRP  
Enf Action Source: CERS

Site ID: 400185  
Site Name: R & S Manufacturing, Inc  
Site Address: 33955 7TH ST  
Site City: UNION CITY  
Site Zip: 94587  
Enf Action Date: 01-08-2016  
Enf Action Type: Notice of Violation (Unified Program)  
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection  
Enf Action Notes: Not reported  
Enf Action Division: Union City Environmental Programs  
Enf Action Program: HW  
Enf Action Source: CERS

Site ID: 400185  
Site Name: R & S Manufacturing, Inc  
Site Address: 33955 7TH ST  
Site City: UNION CITY  
Site Zip: 94587  
Enf Action Date: 01-13-2016  
Enf Action Type: Notice of Violation (Unified Program)  
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection  
Enf Action Notes: Not reported  
Enf Action Division: Union City Environmental Programs  
Enf Action Program: HMRRP  
Enf Action Source: CERS

Coordinates:



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**R & S MANUFACTURING, INC (Continued)**

**S121775239**

Site ID: 400185  
Facility Name: R & S Manufacturing, Inc  
Env Int Type Code: HMBP  
Program ID: 10339291  
Coord Name: Not reported  
Ref Point Type Desc: Center of a facility or station.  
Latitude: 37.596380  
Longitude: -122.015660

Affiliation:

Affiliation Type Desc: Environmental Contact  
Entity Name: Gordon J. Ong  
Entity Title: Not reported  
Affiliation Address: P.O. Box 2737  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587-7737  
Affiliation Phone: Not reported

Affiliation Type Desc: Identification Signer  
Entity Name: Gordon J. Ong  
Entity Title: Manager  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Operator  
Entity Name: R & S Manufacturing, Inc.  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: (510) 429-1788

Affiliation Type Desc: Parent Corporation  
Entity Name: R & S Manufacturing, Inc  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: CUPA District  
Entity Name: Union City Environmental Programs  
Entity Title: Not reported  
Affiliation Address: 34009 Alvarado-Niles Road  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**R & S MANUFACTURING, INC (Continued)**

**S121775239**

Affiliation Zip: 94587  
Affiliation Phone: (510) 675-5360

Affiliation Type Desc: Document Preparer  
Entity Name: Gordon J. Ong  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address  
Entity Name: Mailing Address  
Entity Title: Not reported  
Affiliation Address: P.O. Box 2737  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587-7737  
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner  
Entity Name: R & S Manufacturing, Inc  
Entity Title: Not reported  
Affiliation Address: P.O. Box 2737  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: United States  
Affiliation Zip: 94587-7737  
Affiliation Phone: (510) 429-1788

Affiliation Type Desc: Property Owner  
Entity Name: R & S Manufacturing, Inc.  
Entity Title: Not reported  
Affiliation Address: P.O. Box 2737  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: United States  
Affiliation Zip: 94587-7737  
Affiliation Phone: (510) 429-1788

**CERS TANKS:**

Site ID: 400185  
CERS ID: 10339291  
Site Name: R & S MANUFACTURING, INC  
CERS Description: Chemical Storage Facilities

**Violations:**

Site ID: 400185  
Site Name: R & S Manufacturing, Inc  
Violation Date: 02-13-2019  
Citation: HSC 6.5 25144.6 (b) - California Health and Safety Code, Chapter 6.5, Section(s) 25144.6 (b)  
Violation Description: Failure to properly manage reusable soiled textile materials prior to

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**R & S MANUFACTURING, INC (Continued)**

**S121775239**

being sent for laundering.  
Violation Notes: Not reported  
Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Site ID: 400185  
Site Name: R & S Manufacturing, Inc  
Violation Date: 01-08-2016  
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)  
Violation Description: Failure to properly label hazardous waste accumulation containers with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.  
Violation Notes: Returned to compliance on 01/13/2016. OBSERVATION: The 55-gallon drum of used oil had a hazardous waste label however none of the required information was filled out. All hazardous waste containers shall be marked with the following information: 1) the words "Hazardous Waste"; 2) name and address of generator; 3) hazardous properties; 4) physical state; 5) composition (contents); 6) accumulation start date. CORRECTIVE ACTION: Immediately label these containers and ensure that all hazardous waste containers are marked with all the required information.  
Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Site ID: 400185  
Site Name: R & S Manufacturing, Inc  
Violation Date: 02-13-2019  
Citation: HSC 6.95 25508.2 - California Health and Safety Code, Chapter 6.95, Section(s) 25508.2  
Violation Description: Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.  
Violation Notes: Not reported  
Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 400185  
Site Name: R & S Manufacturing, Inc  
Violation Date: 01-08-2016  
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)  
Violation Description: Failure to complete and electronically submit a site map with all required content.  
Violation Notes: Returned to compliance on 01/20/2016. OBSERVATION: The annotated site map has not been completed and submitted to the CUPA via California Environmental Reporting System (CERS). CORRECTIVE ACTION: Complete an annotated site map and submit electronically in the CERS by February 8, 2016.  
Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**R & S MANUFACTURING, INC (Continued)**

**S121775239**

Site ID: 400185  
Site Name: R & S Manufacturing, Inc  
Violation Date: 01-08-2016  
Citation: 22 CCR 23 66273.2(b)(2) - California Code of Regulations, Title 22, Chapter 23, Section(s) 66273.2(b)(2)  
Violation Description: Failure to properly manage Mercury and Rechargeable batteries as a universal waste.  
Violation Notes: Returned to compliance on 01/13/2016. OBSERVATION: Universal Waste Handler failed to properly manage Mercury and Rechargeable batteries as a universal waste. Based on discussions with Gordon Ong, some fluorescent bulbs have been disposed of in the debris bin. CORRECTIVE ACTION: Owner/Operator shall immediately ensure proper management of Mercury and Rechargeable batteries in accordance with Title 22 regulations. Fluorescent bulbs are considered Universal Waste and are prohibited from being disposed of with municipal waste.  
Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Site ID: 400185  
Site Name: R & S Manufacturing, Inc  
Violation Date: 01-13-2016  
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)  
Violation Description: Failure to complete and electronically submit a site map with all required content.  
Violation Notes: Returned to compliance on 01/13/2016. OBSERVATION: The annotated site map has not been completed and submitted to the CUPA via California Environmental Reporting System (CERS). CORRECTIVE ACTION: Complete an annotated site map and submit electronically in the CERS within 30 days.  
Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Evaluation:  
Eval General Type: Compliance Evaluation Inspection  
Eval Date: 01-13-2016  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: All violations were corrected during my follow up visit on 1/13/2016.  
Eval Division: Union City Environmental Programs  
Eval Program: HMRRP  
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 02-13-2019  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Electronic signature not captured. Recent electronic submittal through CERS on 2/2/2019 with prior submittal on 11/2017.  
Eval Division: Union City Environmental Programs  
Eval Program: HMRRP  
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 02-13-2019

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**R & S MANUFACTURING, INC (Continued)**

**S121775239**

Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Facility has spent fluorescent bulbs but has been unable to dispose of items. Advised facility of Small Business Owner programs with Alameda County and other disposal programs. Advised facility that used oil rags with free flowing used oil should be handled as hazardous waste and not as ordinary trash.

Eval Division: Union City Environmental Programs  
Eval Program: HW  
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 01-08-2016  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Routine inspection of the facility, met with Gordon Ong, Facility Manager.

Eval Division: Union City Environmental Programs  
Eval Program: HMRRP  
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 11-26-2018  
Violations Found: No  
Eval Type: Routine done by local agency  
Eval Notes: TEST  
Eval Division: Union City Environmental Programs  
Eval Program: HW  
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 01-08-2016  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Routine inspection of the facility, met with Gordon Ong, Facility Manager. All violations were corrected during my follow up visit on 1/13/2016.

Eval Division: Union City Environmental Programs  
Eval Program: HW  
Eval Source: CERS

Enforcement Action:  
Site ID: 400185  
Site Name: R & S Manufacturing, Inc  
Site Address: 33955 7TH ST  
Site City: UNION CITY  
Site Zip: 94587  
Enf Action Date: 01-08-2016  
Enf Action Type: Notice of Violation (Unified Program)  
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection  
Enf Action Notes: Not reported  
Enf Action Division: Union City Environmental Programs  
Enf Action Program: HMRRP  
Enf Action Source: CERS

Site ID: 400185  
Site Name: R & S Manufacturing, Inc

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**R & S MANUFACTURING, INC (Continued)**

**S121775239**

Site Address: 33955 7TH ST  
Site City: UNION CITY  
Site Zip: 94587  
Enf Action Date: 01-08-2016  
Enf Action Type: Notice of Violation (Unified Program)  
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection  
Enf Action Notes: Not reported  
Enf Action Division: Union City Environmental Programs  
Enf Action Program: HW  
Enf Action Source: CERS

Site ID: 400185  
Site Name: R & S Manufacturing, Inc  
Site Address: 33955 7TH ST  
Site City: UNION CITY  
Site Zip: 94587  
Enf Action Date: 01-13-2016  
Enf Action Type: Notice of Violation (Unified Program)  
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection  
Enf Action Notes: Not reported  
Enf Action Division: Union City Environmental Programs  
Enf Action Program: HMRRP  
Enf Action Source: CERS

Coordinates:  
Site ID: 400185  
Facility Name: R & S Manufacturing, Inc  
Env Int Type Code: HMBP  
Program ID: 10339291  
Coord Name: Not reported  
Ref Point Type Desc: Center of a facility or station.  
Latitude: 37.596380  
Longitude: -122.015660

Affiliation:  
Affiliation Type Desc: Environmental Contact  
Entity Name: Gordon J. Ong  
Entity Title: Not reported  
Affiliation Address: P.O. Box 2737  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587-7737  
Affiliation Phone: Not reported

Affiliation Type Desc: Identification Signer  
Entity Name: Gordon J. Ong  
Entity Title: Manager  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Operator

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**R & S MANUFACTURING, INC (Continued)**

**S121775239**

Entity Name: R & S Manufacturing, Inc.  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: (510) 429-1788

Affiliation Type Desc: Parent Corporation  
Entity Name: R & S Manufacturing, Inc  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: CUPA District  
Entity Name: Union City Environmental Programs  
Entity Title: Not reported  
Affiliation Address: 34009 Alvarado-Niles Road  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: (510) 675-5360

Affiliation Type Desc: Document Preparer  
Entity Name: Gordon J. Ong  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address  
Entity Name: Mailing Address  
Entity Title: Not reported  
Affiliation Address: P.O. Box 2737  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587-7737  
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner  
Entity Name: R & S Manufacturing, Inc  
Entity Title: Not reported  
Affiliation Address: P.O. Box 2737  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: United States  
Affiliation Zip: 94587-7737

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**R & S MANUFACTURING, INC (Continued)**

**S121775239**

Affiliation Phone: (510) 429-1788  
 Affiliation Type Desc: Property Owner  
 Entity Name: R & S Manufacturing, Inc.  
 Entity Title: Not reported  
 Affiliation Address: P.O. Box 2737  
 Affiliation City: Union City  
 Affiliation State: CA  
 Affiliation Country: United States  
 Affiliation Zip: 94587-7737  
 Affiliation Phone: (510) 429-1788

**A33 AIR LIQUIDE LIQUID AIR CORP  
 700 DECOTO RD  
 UNION CITY, CA 94587**

**SPILLS 90 S112285856  
 N/A**

< 1/8  
 1 ft.

**Site 16 of 17 in cluster A**

**Relative:  
 Higher  
 Actual:  
 71 ft.**

Spills:  
 Status: ACTIVE  
 Contact Name: Not reported  
 Contact Phone: Not reported  
 Site ID: SLC201S0148  
 Secondary ID: Not reported  
 Cross Street: Not reported  
 County: ALAMEDA  
 Longitude: -122017172  
 Latitude: 37596703  
 Elevation: 66  
 Last Agency Update: 2/17/98  
 Staff: AOF  
 Status: ACTIVE  
 Facility Description: Not reported  
 Status: ACTIVE  
 Comment: ACWD LEAD  
 Npl Site: NOT AN NPL SITE  
 Is This A Leaking Underground Tank  
 TANK  
 Date Disclosed: Not reported  
 Contamination Source: (S)ACETONE 5600PPM (W)ACETONE 330,000,000PPB MAX  
 Sample Date: 12/23/97  
 Lead: RWQCB  
 # Of Municipal Wells: 0  
 # Of Private Wells: 0  
 Agency Comments: ACWD LEAD  
 Soil Remediation: YES  
 Date Soil Removal Or Containment Action Started  
 12/14/89  
 Was Onsite Groundwater Extraction Or Containment Action Needed At Site  
 YES  
 Date On-Site Gw Extraction Or Containment Action Was Started Or Is Due  
 To Start  
 2/1/97  
 Was Off-Site Groundwater Extraction Or Containment Action Needed  
 Date Off-Site Gw Extraction Or Containment Action Was Started Or Is  
 Due To Start



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**AIR LIQUIDE LIQUID AIR CORP (Continued)**

**S112285856**

Most Current Estimate In Gpm S Of The Rate Of Gw Extraction  
0  
Most Recent Date Gw Extraction Flow Rate Was Monitored  
Estimated % Of Contaminants Contained &  
Contamination Plume Length (In Feet)  
0  
Contamination Plume Depth (In Feet)  
0  
Contamination Level If Any Of The Nearest Drinking Water Well  
3.5 DCE;13 TCA;9.3 TCE;7.1 DCA  
Wells Closed Due To Contamination From The Site  
Date Of Well Closures: Not reported  
Distance To Nearest Public Or Private Drinking Water Well To Site (In  
Feet)  
0  
Latitude & Longitude Provided By Facility  
37.597715-122.016785  
Date Site Name Under Preview By Lead Agency

**A34**

**LIQUID AIR CORPORATION  
700 DECOTO RD  
UNION CITY, CA 94587**

**HAZNET S113005970  
N/A**

**< 1/8  
1 ft.**

**Site 17 of 17 in cluster A**

**Relative:  
Higher  
Actual:  
71 ft.**

HAZNET:  
Site Name: LIQUIDE AIR AMERICA SPECIALTY GASES LLC  
Year: 2012  
GEPaid: CAD981424245  
Contact: CHAD BEAUCHAMP/PLANT MGR  
Telephone: 5104294247  
Mailing Name: Not reported  
Mailing Address: 700 DECOTO RD  
Mailing City,St,Zip: UNION CITY, CA 945873513  
Gen County: Alameda  
TSD EPA ID: CAD980887418  
TSD County: Alameda  
Tons: 0.075  
CA Waste Code: -  
Method: H141-  
Facility County: Alameda

Site Name: LIQUIDE AIR AMERICA SPECIALTY GASES LLC  
Year: 2012  
GEPaid: CAD981424245  
Contact: CHAD BEAUCHAMP/PLANT MGR  
Telephone: 5104294247  
Mailing Name: Not reported  
Mailing Address: 700 DECOTO RD  
Mailing City,St,Zip: UNION CITY, CA 945873513  
Gen County: Alameda  
TSD EPA ID: CAD980887418  
TSD County: Alameda  
Tons: 0.075  
CA Waste Code: -  
Method: H141-  
Facility County: Alameda

Site Name: LIQUIDE AIR AMERICA SPECIALTY GASES LLC

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**LIQUID AIR CORPORATION (Continued)**

**S113005970**

Year: 2012  
GEPaid: CAD981424245  
Contact: CHAD BEAUCHAMP/PLANT MGR  
Telephone: 5104294247  
Mailing Name: Not reported  
Mailing Address: 700 DECOTO RD  
Mailing City,St,Zip: UNION CITY, CA 945873513  
Gen County: Alameda  
TSD EPA ID: CAD980887418  
TSD County: Alameda  
Tons: 0.075  
CA Waste Code: -  
Method: H141-  
Facility County: Alameda

Site Name: LIQUIDE AIR AMERICA SPECIALTY GASES LLC  
Year: 2012  
GEPaid: CAD981424245  
Contact: CHAD BEAUCHAMP/PLANT MGR  
Telephone: 5104294247  
Mailing Name: Not reported  
Mailing Address: 700 DECOTO RD  
Mailing City,St,Zip: UNION CITY, CA 945873513  
Gen County: Alameda  
TSD EPA ID: CAD980887418  
TSD County: Alameda  
Tons: 0.075  
CA Waste Code: -  
Method: H141-  
Facility County: Alameda

Site Name: LIQUIDE AIR AMERICA SPECIALTY GASES LLC  
Year: 2012  
GEPaid: CAD981424245  
Contact: CHAD BEAUCHAMP/PLANT MGR  
Telephone: 5104294247  
Mailing Name: Not reported  
Mailing Address: 700 DECOTO RD  
Mailing City,St,Zip: UNION CITY, CA 945873513  
Gen County: Alameda  
TSD EPA ID: CAD980887418  
TSD County: Alameda  
Tons: 0.075  
CA Waste Code: -  
Method: H141-  
Facility County: Alameda

[Click this hyperlink](#) while viewing on your computer to access 787 additional CA\_HAZNET: record(s) in the EDR Site Report.

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**D35**      **R & S MANUFACTURING INC**  
 33955 7TH STREET  
 < 1/8      **UNION CITY, CA 94587**  
 1 ft.

**FINDS**    **1006826681**  
**ECHO**      **N/A**  
**EMI**  
**CERS**

**Site 3 of 4 in cluster D**

**Relative:**  
**Higher**

**FINDS:**

**Actual:**  
**66 ft.**

Registry ID:                      110013858183

Environmental Interest/Information System  
 AIR EMISSIONS CLASSIFICATION UNKNOWN

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

OSHA ESTABLISHMENT

STATE MASTER

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

**ECHO:**

Envid:                              1006826681  
 Registry ID:                      110013858183  
 DFR URL:                         <http://echo.epa.gov/detailed-facility-report?fid=110013858183>

**EMI:**

Year:                                1999  
 County Code:                      1  
 Air Basin:                         SF  
 Facility ID:                        12090  
 Air District Name:                BA  
 SIC Code:                         3490  
 Air District Name:                BAY AREA AQMD  
 Community Health Air Pollution Info System: Not reported  
 Consolidated Emission Reporting Rule: Not reported  
 Total Organic Hydrocarbon Gases Tons/Yr: 0  
 Reactive Organic Gases Tons/Yr: 0  
 Carbon Monoxide Emissions Tons/Yr: 0  
 NOX - Oxides of Nitrogen Tons/Yr: 0  
 SOX - Oxides of Sulphur Tons/Yr: 0  
 Particulate Matter Tons/Yr: 0  
 Part. Matter 10 Micrometers and Smlr Tons/Yr: 0

Year:                                2000  
 County Code:                      1  
 Air Basin:                         SF  
 Facility ID:                        12090  
 Air District Name:                BA  
 SIC Code:                         3490  
 Air District Name:                BAY AREA AQMD

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**R & S MANUFACTURING INC (Continued)**

**1006826681**

Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0  
Reactive Organic Gases Tons/Yr: 0  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2001  
County Code: 1  
Air Basin: SF  
Facility ID: 12090  
Air District Name: BA  
SIC Code: 3442  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0  
Reactive Organic Gases Tons/Yr: 0  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2002  
County Code: 1  
Air Basin: SF  
Facility ID: 12090  
Air District Name: BA  
SIC Code: 3442  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0  
Reactive Organic Gases Tons/Yr: 0  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2003  
County Code: 1  
Air Basin: SF  
Facility ID: 12090  
Air District Name: BA  
SIC Code: 3442  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0  
Reactive Organic Gases Tons/Yr: 0  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**R & S MANUFACTURING INC (Continued)**

**1006826681**

SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smllr Tons/Yr:0

Year: 2004  
County Code: 1  
Air Basin: SF  
Facility ID: 12090  
Air District Name: BA  
SIC Code: 3442  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0.226  
Reactive Organic Gases Tons/Yr: 0.2232654  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smllr Tons/Yr:0

Year: 2005  
County Code: 1  
Air Basin: SF  
Facility ID: 12090  
Air District Name: BA  
SIC Code: 3442  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: .226  
Reactive Organic Gases Tons/Yr: .2232654  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smllr Tons/Yr:0

Year: 2006  
County Code: 1  
Air Basin: SF  
Facility ID: 12090  
Air District Name: BA  
SIC Code: 3442  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: .199  
Reactive Organic Gases Tons/Yr: .1965921  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smllr Tons/Yr:0

Year: 2007  
County Code: 1

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**R & S MANUFACTURING INC (Continued)**

**1006826681**

Air Basin: SF  
Facility ID: 12090  
Air District Name: BA  
SIC Code: 3442  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: .199  
Reactive Organic Gases Tons/Yr: .1965921  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2008  
County Code: 1  
Air Basin: SF  
Facility ID: 12090  
Air District Name: BA  
SIC Code: 3442  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: .497  
Reactive Organic Gases Tons/Yr: .4909863  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2009  
County Code: 1  
Air Basin: SF  
Facility ID: 12090  
Air District Name: BA  
SIC Code: 3442  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0.34699999999999998  
Reactive Organic Gases Tons/Yr: 0.342801299999999998  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2010  
County Code: 1  
Air Basin: SF  
Facility ID: 12090  
Air District Name: BA  
SIC Code: 3442  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**R & S MANUFACTURING INC (Continued)**

**1006826681**

Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0.995  
Reactive Organic Gases Tons/Yr: 0.98296050000000001  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2011  
County Code: 1  
Air Basin: SF  
Facility ID: 12090  
Air District Name: BA  
SIC Code: 3442  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 1.217  
Reactive Organic Gases Tons/Yr: 1.2022743  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2012  
County Code: 1  
Air Basin: SF  
Facility ID: 12090  
Air District Name: BA  
SIC Code: 3442  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 1.217  
Reactive Organic Gases Tons/Yr: 1.2022743  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2013  
County Code: 1  
Air Basin: SF  
Facility ID: 12090  
Air District Name: BA  
SIC Code: 3442  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 1.205  
Reactive Organic Gases Tons/Yr: 1.1904195  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**R & S MANUFACTURING INC (Continued)**

**1006826681**

Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smlr Tons/Yr:0  
  
Year: 2014  
County Code: 1  
Air Basin: SF  
Facility ID: 12090  
Air District Name: BA  
SIC Code: 3442  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 1.017467053  
Reactive Organic Gases Tons/Yr: 0  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2015  
County Code: 1  
Air Basin: SF  
Facility ID: 12090  
Air District Name: BA  
SIC Code: 3442  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0.9621697  
Reactive Organic Gases Tons/Yr: 0.9621697  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2016  
County Code: 1  
Air Basin: SF  
Facility ID: 12090  
Air District Name: BA  
SIC Code: 3442  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0.962169732  
Reactive Organic Gases Tons/Yr: 0.95052747824  
Carbon Monoxide Emissions Tons/Yr: Not reported  
NOX - Oxides of Nitrogen Tons/Yr: Not reported  
SOX - Oxides of Sulphur Tons/Yr: Not reported  
Particulate Matter Tons/Yr: Not reported  
Part. Matter 10 Micrometers and Smlr Tons/Yr:Not reported

**CERS TANKS:**

Site ID: 488902  
CERS ID: 110013858183



Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**R & S MANUFACTURING INC (Continued)**

**1006826681**

Site Name: R & S MANUFACTURING INC  
 CERS Description: US EPA Air Emission Inventory System (EIS)

Affiliation:

Affiliation Type Desc: Operator  
 Entity Name: R AND S MFG  
 Entity Title: OPERATOR  
 Affiliation Address: POBOX 2737  
 Affiliation City: UNIONCITY  
 Affiliation State: CA  
 Affiliation Country: Not reported  
 Affiliation Zip: Not reported  
 Affiliation Phone: Not reported

Affiliation Type Desc: Environmental Contact  
 Entity Name: GORDON J ONG  
 Entity Title: ENVIRONMENTAL CONTACT  
 Affiliation Address: POBOX 2737  
 Affiliation City: UNIONCITY  
 Affiliation State: CA  
 Affiliation Country: Not reported  
 Affiliation Zip: Not reported  
 Affiliation Phone: Not reported

Affiliation Type Desc: Property Owner  
 Entity Name: R & AMP S MANUFACTURINGNA  
 Entity Title: Not reported  
 Affiliation Address: POBOX 2737  
 Affiliation City: UNIONCITY  
 Affiliation State: Not reported  
 Affiliation Country: Not reported  
 Affiliation Zip: Not reported  
 Affiliation Phone: Not reported

Affiliation Type Desc: Facility Owner  
 Entity Name: R AND S MFG  
 Entity Title: OWNER  
 Affiliation Address: POBOX 2737  
 Affiliation City: UNIONCITY  
 Affiliation State: CA  
 Affiliation Country: Not reported  
 Affiliation Zip: Not reported  
 Affiliation Phone: Not reported

**C36 MCKESSON CHEMICAL COMPANY**  
**33950 7TH STREET**  
**< 1/8 UNION CITY, CA 94587**

**1 ft.**

**Site 11 of 14 in cluster C**

**ENVIROSTOR S101007013**  
**CPS-SLIC N/A**  
**DEED**  
**HIST CORTESE**  
**CERS**

**Relative:  
 Higher**

ENVIROSTOR:  
 Facility ID: 1280071  
 Status: Refer: RWQCB  
 Status Date: 09/13/1985  
 Site Code: Not reported  
 Site Type: Historical  
 Site Type Detailed: \* Historical

**Actual:  
 68 ft.**

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MCKESSON CHEMICAL COMPANY (Continued)**

**S101007013**

Acres: Not reported  
NPL: NO  
Regulatory Agencies: RWQCB 2 - San Francisco Bay  
Lead Agency: RWQCB 2 - San Francisco Bay  
Program Manager: Not reported  
Supervisor: Referred - Not Assigned  
Division Branch: Cleanup Berkeley  
Assembly: 20  
Senate: 10  
Special Program: Not reported  
Restricted Use: NO  
Site Mgmt Req: NONE SPECIFIED  
Funding: Not reported  
Latitude: 37.59712  
Longitude: -122.0158  
APN: 87-21-13-1  
Past Use: NONE SPECIFIED  
Potential COC: NONE SPECIFIED  
Confirmed COC: NONE SPECIFIED  
Potential Description: NONE SPECIFIED  
Alias Name: Not reported  
Alias Type: Not reported

Completed Info:

Completed Area Name: Not reported  
Completed Sub Area Name: Not reported  
Completed Document Type: Not reported  
Completed Date: Not reported  
Comments: Not reported

Future Area Name: Not reported  
Future Sub Area Name: Not reported  
Future Document Type: Not reported  
Future Due Date: Not reported  
Schedule Area Name: Not reported  
Schedule Sub Area Name: Not reported  
Schedule Document Type: Not reported  
Schedule Due Date: Not reported  
Schedule Revised Date: Not reported

CPS-SLIC:

Site Name: MCKESSON CHEMICAL FACILITY  
Region: STATE  
**Facility Status: Open - Remediation**  
Status Date: 06/04/2009  
Global Id: SL18290711  
Lead Agency: SAN FRANCISCO BAY RWQCB (REGION 2)  
Lead Agency Case Number: 0072  
Latitude: 37.597125  
Longitude: -122.015897  
Case Type: Cleanup Program Site  
Case Worker: MJD  
Local Agency: ALAMEDA COUNTY WATER DISTRICT  
RB Case Number: 01S0014  
File Location: Regional Board  
Potential Media Affected: Other Groundwater (uses other than drinking water)  
Potential Contaminants of Concern: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MCKESSON CHEMICAL COMPANY (Continued)**

**S101007013**

Site History: Soil and groundwater contamination discovered in 1983. Subsequent investigation and remedial actions were governed by WDR Order No 86-3 , 88-104 adopted June 15, 1988. Pirmary sources of chlorinated hydrocarbons was the former USTs excvated in 1985 and the solvent diked area excavted in 1987, as interim remedial measures. Final Site Cleanup Requirements were adopted by the Board in Order No 99-071.McKesson is implementing final remedial action (groundwater pump and treat) at the site. The site has been redeveloped with single family homes. A Liquid boot vapor barrier was installed beneath each home as a precaution to eliminate vapor intrusion threats, if any. Deed restriction was recorded with Alameda County.

Click here to access the California GeoTracker records for this facility:

**DEED:**

Envirostor ID: SL18290711  
Area: Not reported  
Sub Area: Not reported  
Site Type: SLIC  
Status: OPEN - REMEDIATION  
Agency: SWRCB  
Covenant Uploaded: Y  
Deed Date(s): 03/29/2004  
File Name: Geotracker Land Use/Deed Restrictions

Envirostor ID: SL18290711  
Area: Not reported  
Sub Area: Not reported  
Site Type: SLIC  
Status: OPEN - REMEDIATION  
Agency: SWRCB  
Covenant Uploaded: Y  
Deed Date(s): 11/26/2003  
File Name: Geotracker Land Use/Deed Restrictions

**HIST CORTESE:**

Region: CORTESE  
Facility County Code: 1  
Reg By: WBC&D  
Reg Id: 2 019211N01

**CERS TANKS:**

Site ID: 248548  
CERS ID: SL18290711  
Site Name: MCKESSON CHEMICAL FACILITY  
CERS Description: Cleanup Program Site

**Affiliation:**

Affiliation Type Desc: Regional Board Caseworker  
Entity Name: Cherie McCaulou - SAN FRANCISCO BAY RWQCB (REGION 2)  
Entity Title: Not reported  
Affiliation Address: 1515 CLAY STREET, SUITE 1400  
Affiliation City: OAKLAND  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MCKESSON CHEMICAL COMPANY (Continued)**

**S101007013**

Affiliation Phone: Not reported  
Affiliation Type Desc: Local Agency Caseworker  
Entity Name: DOUG YOUNG - ALAMEDA COUNTY WATER DISTRICT  
Entity Title: Not reported  
Affiliation Address: 43885 SOUTH GRIMMER BLVD  
Affiliation City: FREMONT  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

**C37**

**MCKESSON HBOC INC  
33950 SEVENTH ST  
UNION CITY, CA 94587**

**HAZNET S113001668  
N/A**

< 1/8  
1 ft.

**Site 12 of 14 in cluster C**

**Relative:  
Higher  
Actual:  
68 ft.**

HAZNET:  
Site Name: MCKESSON CORPORATION  
Year: 2003  
GEPaid: CAD073934903  
Contact: JEAN MESCHER/DIRECTOR  
Telephone: 4159837598  
Mailing Name: Not reported  
Mailing Address: 1 POST STREET 34TH FLOOR  
Mailing City,St,Zip: SAN FRANCISCO, CA 941040000  
Gen County: Not reported  
TSD EPA ID: CAL000161743  
TSD County: Not reported  
Tons: 0.1  
CA Waste Code: 134-  
Method: R01-  
Facility County: Alameda  
  
Site Name: MCKESSON CORPORATION  
Year: 2003  
GEPaid: CAD073934903  
Contact: JEAN MESCHER/DIRECTOR  
Telephone: 4159837598  
Mailing Name: Not reported  
Mailing Address: 1 POST STREET 34TH FLOOR  
Mailing City,St,Zip: SAN FRANCISCO, CA 941040000  
Gen County: Not reported  
TSD EPA ID: AZD982441263  
TSD County: Not reported  
Tons: 0.32  
CA Waste Code: 351-  
Method: -  
Facility County: Alameda  
  
Site Name: MCKESSON CORPORATION  
Year: 2003  
GEPaid: CAD073934903  
Contact: JEAN MESCHER/DIRECTOR  
Telephone: 4159837598  
Mailing Name: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MCKESSON HBOC INC (Continued)**

**S113001668**

Mailing Address: 1 POST STREET 34TH FLOOR  
Mailing City,St,Zip: SAN FRANCISCO, CA 941040000  
Gen County: Not reported  
TSD EPA ID: AZD982441263  
TSD County: Not reported  
Tons: 0.32  
CA Waste Code: 351-  
Method: -  
Facility County: Alameda

Site Name: MCKESSON CORPORATION  
Year: 2003  
GEPaid: CAD073934903  
Contact: JEAN MESCHER/DIRECTOR  
Telephone: 4159837598  
Mailing Name: Not reported  
Mailing Address: 1 POST STREET 34TH FLOOR  
Mailing City,St,Zip: SAN FRANCISCO, CA 941040000  
Gen County: Not reported  
TSD EPA ID: AZD982441263  
TSD County: Not reported  
Tons: 0.32  
CA Waste Code: 351-  
Method: -  
Facility County: Alameda

Site Name: MCKESSON CORPORATION  
Year: 2003  
GEPaid: CAD073934903  
Contact: JEAN MESCHER/DIRECTOR  
Telephone: 4159837598  
Mailing Name: Not reported  
Mailing Address: 1 POST STREET 34TH FLOOR  
Mailing City,St,Zip: SAN FRANCISCO, CA 941040000  
Gen County: Not reported  
TSD EPA ID: CAD059494310  
TSD County: Not reported  
Tons: 0.02  
CA Waste Code: 211-  
Method: D99-  
Facility County: Alameda

[Click this hyperlink](#) while viewing on your computer to access 39 additional CA\_HAZNET: record(s) in the EDR Site Report.

**C38**      **OXFORD TIRE RECYCLING**  
**33950 7TH ST**  
**< 1/8**      **UNION CITY, CA 94587**  
**1 ft.**  
**Site 13 of 14 in cluster C**

**NPDES S117706940**  
**CIWQS N/A**

**Relative:**      NPDES:  
**Higher**      Facility Status:      Not reported  
**Actual:**      NPDES Number:      Not reported  
**68 ft.**      Region:      Not reported  
Agency Number:      Not reported  
Regulatory Measure ID:      Not reported  
Place ID:      Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**OXFORD TIRE RECYLING (Continued)**

**S117706940**

Order Number: Not reported  
WDID: 2 01I000727  
Regulatory Measure Type: Industrial  
Program Type: Not reported  
Adoption Date Of Regulatory Measure: Not reported  
Effective Date Of Regulatory Measure: Not reported  
Termination Date Of Regulatory Measure: Not reported  
Expiration Date Of Regulatory Measure: Not reported  
Discharge Address: Not reported  
Discharge Name: Not reported  
Discharge City: Not reported  
Discharge State: Not reported  
Discharge Zip: Not reported  
Status: Terminated  
Status Date: 03/19/1992  
Operator Name: Oxford Tire Recycling  
Operator Address: 33950 7th St  
Operator City: Union City  
Operator State: California  
Operator Zip: 94587

NPDES as of 03/2018:

NPDES Number: Not reported  
Status: Not reported  
Agency Number: Not reported  
Region: 2  
Regulatory Measure ID: 275102  
Order Number: Not reported  
Regulatory Measure Type: Industrial  
Place ID: Not reported  
WDID: 2 01I000727  
Program Type: Not reported  
Adoption Date Of Regulatory Measure: Not reported  
Effective Date Of Regulatory Measure: Not reported  
Expiration Date Of Regulatory Measure: Not reported  
Termination Date Of Regulatory Measure: Not reported  
Discharge Name: Not reported  
Discharge Address: Not reported  
Discharge City: Not reported  
Discharge State: Not reported  
Discharge Zip: Not reported  
Received Date: 05/09/2008  
Processed Date: 03/19/1992  
Status: Terminated  
Status Date: 03/19/1992  
Place Size: 7  
Place Size Unit: Acres  
Contact: Stan Patterson  
Contact Title: Not reported  
Contact Phone: Not reported  
Contact Phone Ext: Not reported  
Contact Email: Not reported  
Operator Name: Oxford Tire Recycling  
Operator Address: 33950 7th St  
Operator City: Union City  
Operator State: California  
Operator Zip: 94587  
Operator Contact: Stan Patterson

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**OXFORD TIRE RECYCLING (Continued)**

**S117706940**

Operator Contact Title:	Not reported
Operator Contact Phone:	Not reported
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported
Operator Type:	Private Business
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	California
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commercial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	Not reported
Receiving Water Name:	Not reported
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	5014-Tires and Tubes
Secondary Sic:	Not reported
Tertiary Sic:	Not reported

**CIWQS:**

Agency:	Oxford Tire Recycling
Agency Address:	33950 7th St, Union City, CA 94587
Place/Project Type:	Industrial - Tires and Tubes
SIC/NAICS:	5014
Region:	2
Program:	INDSTW
Regulatory Measure Status:	Terminated
Regulatory Measure Type:	Storm water industrial
Order Number:	2014-0057-DWQ
WDID:	2 01I000727
NPDES Number:	CAS000001
Adoption Date:	Not reported
Effective Date:	03/19/1992
Termination Date:	Not reported
Expiration/Review Date:	Not reported

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**OXFORD TIRE RECYCLING (Continued)**

**S117706940**

Design Flow: Not reported  
 Major/Minor: Not reported  
 Complexity: Not reported  
 TTWQ: Not reported  
 Enforcement Actions within 5 years: 0  
 Violations within 5 years: 0  
 Latitude: 37.59737  
 Longitude: -122.01505

**C39**

**MCKESSON CORPORATION  
 33950 SEVENTH ST  
 UNION CITY, CA 94587**

**ENVIROSTOR  
 HWP  
 CERS**

**S105033537  
 N/A**

< 1/8  
 1 ft.

**Site 14 of 14 in cluster C**

**Relative:  
 Higher**

**ENVIROSTOR:**

**Actual:  
 68 ft.**

Facility ID: 80001666  
 Status: Refer: RWQCB  
 Status Date: 01/01/2008  
 Site Code: Not reported  
 Site Type: Corrective Action  
 Site Type Detailed: Corrective Action  
 Acres: 0  
 NPL: NO  
 Regulatory Agencies: RWQCB 2 - San Francisco Bay  
 Lead Agency: RWQCB 2 - San Francisco Bay  
 Program Manager: Not reported  
 Supervisor: Referred - Not Assigned  
 Division Branch: Cleanup Berkeley  
 Assembly: 20  
 Senate: 10  
 Special Program: Not reported  
 Restricted Use: NO  
 Site Mgmt Req: NONE SPECIFIED  
 Funding: Not reported  
 Latitude: 37.59712  
 Longitude: -122.0158  
 APN: 87-21-13-1  
 Past Use: NONE SPECIFIED  
 Potential COC: NONE SPECIFIED  
 Confirmed COC: NONE SPECIFIED  
 Potential Description: NONE SPECIFIED  
 Alias Name: 87-21-13-1  
 Alias Type: APN  
 Alias Name: CAD073934903  
 Alias Type: EPA Identification Number  
 Alias Name: 110000609789  
 Alias Type: EPA (FRS #)  
 Alias Name: SL18290711  
 Alias Type: GeoTracker Global ID  
 Alias Name: 01280071  
 Alias Type: Envirostor ID Number  
 Alias Name: 80001666  
 Alias Type: Envirostor ID Number

**Completed Info:**

Completed Area Name: PROJECT WIDE  
 Completed Sub Area Name: Not reported



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MCKESSON CORPORATION (Continued)**

**S105033537**

Completed Document Type: Interim Measures Questionnaire  
Completed Date: 08/10/1994  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: RCRA Facility Assessment Report  
Completed Date: 07/14/1989  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Consent Agreement  
Completed Date: 06/15/1988  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: RFI Report  
Completed Date: 07/14/1989  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: RFI Workplan  
Completed Date: 06/30/1988  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Interim Measures Implementation Report  
Completed Date: 12/31/1988  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Preliminary Assessment Report  
Completed Date: 06/01/1985  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Preliminary Assessment Report  
Completed Date: 09/01/1985  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Interim Measures Workplan  
Completed Date: 10/01/1985  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Interim Measures Workplan  
Completed Date: 10/31/1985  
Comments: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MCKESSON CORPORATION (Continued)**

**S105033537**

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Groundwater Migration Controlled  
Completed Date: 12/28/2000  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Human Exposure Controlled  
Completed Date: 12/28/2000  
Comments: Not reported

Future Area Name: Not reported  
Future Sub Area Name: Not reported  
Future Document Type: Not reported  
Future Due Date: Not reported  
Schedule Area Name: Not reported  
Schedule Sub Area Name: Not reported  
Schedule Document Type: Not reported  
Schedule Due Date: Not reported  
Schedule Revised Date: Not reported

**HWP:**

EPA Id: CAD073934903  
Cleanup Status: CLOSED  
Latitude: 37.59712  
Longitude: -122.0158  
Facility Type: Historical - Non-Operating  
Facility Size: Not reported  
Team: Not reported  
Supervisor: Not reported  
Site Code: Not reported  
Assembly District: 20  
Senate District: 10  
Public Information Officer: Not reported  
Public Information Officer: Not reported

**Activities:**

EPA Id: CAD073934903  
Facility Type: Historical - Non-Operating  
Unit Names: Not reported  
Event Description: New Operating Permit - PUBLIC COMMENT (BEGIN)  
Actual Date: 12/10/1985

EPA Id: CAD073934903  
Facility Type: Historical - Non-Operating  
Unit Names: Not reported  
Event Description: New Operating Permit - FINAL PERMIT - WITHDRAWAL REQUEST ACKNOWLEDGED  
Actual Date: 07/21/1988

EPA Id: CAD073934903  
Facility Type: Historical - Non-Operating  
Unit Names: Not reported  
Event Description: New Operating Permit - FINAL PERMIT - WITHDRAWAL REQUEST RECEIVED  
Actual Date: 01/31/1987

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MCKESSON CORPORATION (Continued)**

**S105033537**

Closure:

EPA Id: CAD073934903  
Facility Type: Historical - Non-Operating  
Unit Names: CONTAIN1, TANKSTR1, TANKTRT1  
Event Description: Closure Final - RECEIVE CLOSURE CERTIFICATION  
Actual Date: 12/02/1988

EPA Id: CAD073934903  
Facility Type: Historical - Non-Operating  
Unit Names: CONTAIN1, TANKSTR1, TANKTRT1  
Event Description: Closure Final - ISSUE CLOSURE VERIFICATION  
Actual Date: 02/15/1989

Alias:

EPA Id: CAD073934903  
Facility Type: Historical - Non-Operating  
Alias Type: Envirostor ID Number  
Alias: 01280071

EPA Id: CAD073934903  
Facility Type: Historical - Non-Operating  
Alias Type: FRS  
Alias: 110000609789

CERS TANKS:

Site ID: 196175  
CERS ID: CAD073934903  
Site Name: MCKESSON CORPORATION  
CERS Description: Hazardous Waste

Affiliation:

Affiliation Type Desc: Facility Owner  
Entity Name: McKesson Corporation  
Entity Title: Not reported  
Affiliation Address: 1 POST ST FL 34  
Affiliation City: SAN FRANCISCO  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 941045238  
Affiliation Phone: 6088484134

Affiliation Type Desc: Supervisor  
Entity Name: Referred - Not Assigned  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Contact  
Entity Name: JEAN MESCHER/DIRECTOR  
Entity Title: Not reported  
Affiliation Address: 1 POST ST FL 34

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MCKESSON CORPORATION (Continued)**

**S105033537**

Affiliation City: SAN FRANCISCO  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 941045238  
Affiliation Phone: 6088484134

Site ID: 196175  
CERS ID: 80001666  
Site Name: MCKESSON CORPORATION  
CERS Description: Corrective Action

Affiliation:

Affiliation Type Desc: Facility Owner  
Entity Name: McKesson Corporation  
Entity Title: Not reported  
Affiliation Address: 1 POST ST FL 34  
Affiliation City: SAN FRANCISCO  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 941045238  
Affiliation Phone: 6088484134

Affiliation Type Desc: Supervisor  
Entity Name: Referred - Not Assigned  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Contact  
Entity Name: JEAN MESCHER/DIRECTOR  
Entity Title: Not reported  
Affiliation Address: 1 POST ST FL 34  
Affiliation City: SAN FRANCISCO  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 941045238  
Affiliation Phone: 6088484134

**E40**

**COLD STORAGE  
740 BRADFORD WAY  
UNION CITY, CA 94587**

**CERS HAZ WASTE S121772281  
CERS N/A**

**< 1/8  
1 ft.**

**Site 1 of 4 in cluster E**

**Relative:  
Lower**

CERS HAZ WASTE:  
Site ID: 390317  
CERS ID: 10003240  
CERS Description: Hazardous Waste Generator

**Actual:  
60 ft.**

Violations:

Site ID: 390317  
Site Name: Cold Storage  
Violation Date: 02-20-2019

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**COLD STORAGE (Continued)**

**S121772281**

Citation: HSC 6.95 25508.2 - California Health and Safety Code, Chapter 6.95, Section(s) 25508.2

Violation Description: Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.

Violation Notes: Not reported

Violation Division: Union City Environmental Programs

Violation Program: HMRRP

Violation Source: CERS

Site ID: 390317

Site Name: Cold Storage

Violation Date: 02-10-2016

Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)

Violation Description: Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.

Violation Notes: Returned to compliance on 03/11/2016. OBSERVATION: The facility has not submitted the Hazardous Materials Inventory Chemical Description page for used oil (120 gallons), isocyanate, autofroth, 55 gallon drum (unknown contents) in the foam room to the CUPA. In addition, an inventory should be taken to confirm quantities of the remaining hazardous materials, especially the propane, nitrogen, and R507. The hazardous material inventory should be revised in CERS. In general, the guidance states that the hazardous materials should be reported in the units at which they are stored (e.g. compressed gases in cubic feet, propane in gallons, etc). CORRECTIVE ACTION: Complete and submit the Hazardous Materials Inventory Chemical Description page for all materials listed above electronically in the California Environmental Reporting System (CERS) within 30 days.

Violation Division: Union City Environmental Programs

Violation Program: HMRRP

Violation Source: CERS

Site ID: 390317

Site Name: Cold Storage

Violation Date: 02-20-2019

Citation: HSC 6.5 25123.3(h)(1) - California Health and Safety Code, Chapter 6.5, Section(s) 25123.3(h)(1)

Violation Description: Failure to send hazardous waste offsite for treatment, storage, or disposal within 180 days (or 270 days if waste is transported over 200 miles) for a generator who generates less than 1000 kilogram per month if all of the following conditions are met: (1) The quantity of hazardous waste accumulated onsite never exceeds 6,000 kilograms. (2) The generator complies with the requirements of 40 Code of Federal Regulations section 262.34(d), (e) and (f). (3) The generator does not hold acutely hazardous waste or extremely hazardous waste in an amount greater than one kilogram for more than 90 days.

Violation Notes: Not reported

Violation Division: Union City Environmental Programs

Violation Program: HW

Violation Source: CERS

Site ID: 390317

Site Name: Cold Storage

Violation Date: 02-20-2019

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**COLD STORAGE (Continued)**

**S121772281**

Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)

Violation Description: Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.

Violation Notes: Not reported

Violation Division: Union City Environmental Programs

Violation Program: HMRRP

Violation Source: CERS

Site ID: 390317

Site Name: Cold Storage

Violation Date: 02-20-2019

Citation: 40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(iii)

Violation Description: Failure to ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies.

Violation Notes: Not reported

Violation Division: Union City Environmental Programs

Violation Program: HW

Violation Source: CERS

Site ID: 390317

Site Name: Cold Storage

Violation Date: 02-10-2016

Citation: 22 CCR 23 66273.34 - California Code of Regulations, Title 22, Chapter 23, Section(s) 66273.34

Violation Description: Failure to properly label the following categories of universal waste as: 1) Each batteries or the container in which the batteries are contained as "Universal Waste-Battery(ies)". 2) Each mercury-containing equipment or the container in which the mercury-containing equipment is contained as "Universal Waste -Mercury-Containing Equipment". 3) Each Florescent lamp or the container or package in which the lamps are contained as "Universal Waste-Lamp(s)". 4) Each electronic devices or the container or pallet in or on which the electronic devices are contained as "Universal Waste-Electronic Device(s)". 5) Each CRTs or the container or pallet in or on which the CRTs are contained as "Universal Waste-CRT(s)". 6) A container of CRT glass shall be labeled or marked clearly with the following phrase: "Universal Waste-CRT glass". 7) In lieu of labeling individual electronic devices, CRTs, and/or containers of CRT glass pursuant to subsections d) through f) of this section, a universal waste handler may combine, package, and accumulate those universal wastes in appropriate containers or within a designated area demarcated by boundaries that are clearly labeled with the applicable portion(s) of the following phrase: "Universal Waste-Electronic Device(s)/Universal Waste - CRT(s)/Universal Waste-CRT Glass".

Violation Notes: Returned to compliance on 02/19/2016. OBSERVATION: Approximately 12 8-foot fluorescent tubes were observed placed in a corner of the facility with no protection or labeling. A generator shall label or mark universal waste with the words 'Universal Waste' and the type of waste (batteries, mercury containing equipment, lamps/bulbs, electronic devices, CRTs, aerosol cans). CORRECTIVE ACTION: Immediately label these wastes and ensure that all universal wastes are labeled with the required information.

Violation Division: Union City Environmental Programs

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**COLD STORAGE (Continued)**

**S121772281**

Violation Program: HW  
Violation Source: CERS

Site ID: 390317  
Site Name: Cold Storage  
Violation Date: 02-20-2019  
Citation: HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple

Violation Description: Hazardous Waste Generator Program - Training - General  
Violation Notes: Incomplete record of consolidated waste manifests; onsite cube tank has 120-gallon capacity but Safety Kleen receipts note removal of 150-gallons.

Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Site ID: 390317  
Site Name: Cold Storage  
Violation Date: 02-10-2016  
Citation: 22 CCR 15 66265.16 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.16

Violation Description: Failure to provide employees within the first six months after the date of their employment, or assignment to the facility, or to work unsupervised, or to a new position at a facility with hazardous waste training to ensure employees are competent in the following areas: hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed, emergency response and emergency equipment, and procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment. In addition, the owner/operator shall ensure facility personnel take part in an annual review of the initial training and training records training records on current personnel shall be kept until closure of the facility. Training records on former employees shall be kept for at least three years from the date the employee last worked at the facility. The records shall include the following: the job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job; a written job description for each position, duties of facility personnel assigned to each position, and a written description of the type and amount of both introductory and continuing training that will be given to each person filling a position.

Violation Notes: Returned to compliance on 02/19/2016. OBSERVATION: At the time of inspection, it could not be demonstrated that employees who handle hazardous waste were properly trained. The generator must ensure that all employees who handle hazardous waste are thoroughly familiar with proper waste handling and emergency procedures. This includes the person signing the manifests. CORRECTIVE ACTION: Immediately provide training to all employees who handle hazardous waste and submit a copy of the training documentation, including (employee names, date of training, and training topics) to the CUPA within 30 days.

Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Site ID: 390317  
Site Name: Cold Storage  
Violation Date: 02-10-2016

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**COLD STORAGE (Continued)**

**S121772281**

Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)  
Violation Description: Failure to properly label hazardous waste accumulation containers with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.  
Violation Notes: Returned to compliance on 02/19/2016.  
Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Site ID: 390317  
Site Name: Cold Storage  
Violation Date: 02-10-2016  
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)  
Violation Description: Failure to establish and electronically submit an adequate emergency response plan and procedures for a release or threatened release of a hazardous material.  
Violation Notes: Returned to compliance on 03/11/2016. OBSERVATION: The Emergency Response plan and procedures submitted to the CUPA did not include emergency response and notification phone numbers, location and type of emergency response equipment, emergency response procedures. CORRECTIVE ACTION: Revise the emergency response plan and procedures to include all required content and submit electronically in the California Environmental Reporting System (CERS). Note: UCEPD will email an Emergency Response and Contingency Plan template for your use.  
Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 390317  
Site Name: Cold Storage  
Violation Date: 02-10-2016  
Citation: HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)  
Violation Description: Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.  
Violation Notes: Returned to compliance on 03/11/2016.  
Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 390317  
Site Name: Cold Storage  
Violation Date: 02-10-2016  
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)  
Violation Description: Failure to complete and electronically submit a site map with all required content.  
Violation Notes: Returned to compliance on 03/11/2016. OBSERVATION: The annotated site map submitted to the CUPA does not include storm drains, locations of hazardous materials and hazardous waste, emergency response equipment. CORRECTIVE ACTION: Revise the annotated Site Map to include all



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**COLD STORAGE (Continued)**

**S121772281**

Violation Division: required content and submit electronically in the California Environmental Reporting System (CERS) within 30 days.  
Violation Program: Union City Environmental Programs  
Violation Source: HMRRP  
CERS

Site ID: 390317  
Site Name: Cold Storage  
Violation Date: 02-10-2016  
Citation: 22 CCR 15 66265.174 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.174

Violation Description: Failure to inspect hazardous waste storage areas at least weekly.  
Violation Notes: Returned to compliance on 02/19/2016. OBSERVATION: Weekly inspections of the used oil tank is not being conducted. The owner or operator shall inspect areas used for container storage or transfer, at least weekly, looking for leaking containers and for deterioration of containers and the containment system caused by corrosion and other factors. CORRECTIVE ACTION: Immediately begin conducting the necessary weekly inspections for all hazardous waste containers at this facility. Provide documentation within 30 days.

Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Evaluation:  
Eval General Type: Compliance Evaluation Inspection  
Eval Date: 02-10-2016  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: CERS information was last submitted on 3/11/2015. Routine inspection of the facility, met with Sarah DeMateo, Safety Manager.

Eval Division: Union City Environmental Programs  
Eval Program: HMRRP  
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 02-20-2019  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Electronic signature not captured  
Eval Division: Union City Environmental Programs  
Eval Program: HMRRP  
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 02-20-2019  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Electronic signature not captured Waste manifests 5/5/2016: 50 gallons waste oil 8/3/2016: 130 gallons waste oil 4/10/2017: no receipt available 1/12/2018: 150 gallons waste oil  
Eval Division: Union City Environmental Programs  
Eval Program: HW  
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 02-10-2016

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**COLD STORAGE (Continued)**

**S121772281**

Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Not reported  
Eval Division: Union City Environmental Programs  
Eval Program: HW  
Eval Source: CERS

Enforcement Action:

Site ID: 390317  
Site Name: Cold Storage  
Site Address: 740 BRADFORD WAY  
Site City: UNION CITY  
Site Zip: 94587  
Enf Action Date: 02-10-2016  
Enf Action Type: Notice of Violation (Unified Program)  
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection  
Enf Action Notes: Not reported  
Enf Action Division: Union City Environmental Programs  
Enf Action Program: HMRRP  
Enf Action Source: CERS

Site ID: 390317  
Site Name: Cold Storage  
Site Address: 740 BRADFORD WAY  
Site City: UNION CITY  
Site Zip: 94587  
Enf Action Date: 02-10-2016  
Enf Action Type: Notice of Violation (Unified Program)  
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection  
Enf Action Notes: Not reported  
Enf Action Division: Union City Environmental Programs  
Enf Action Program: HW  
Enf Action Source: CERS

Coordinates:

Site ID: 390317  
Facility Name: Cold Storage  
Env Int Type Code: HMBP  
Program ID: 10003240  
Coord Name: Not reported  
Ref Point Type Desc: Unknown  
Latitude: 37.595040  
Longitude: -122.013255

Affiliation:

Affiliation Type Desc: CUPA District  
Entity Name: Union City Environmental Programs  
Entity Title: Not reported  
Affiliation Address: 34009 Alvarado-Niles Road  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: (510) 675-5360

Affiliation Type Desc: Document Preparer

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**COLD STORAGE (Continued)**

**S121772281**

Entity Name:	Chris Young
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Parent Corporation
Entity Name:	Cold Storage
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Property Owner
Entity Name:	Don Neiderhaus
Entity Title:	Not reported
Affiliation Address:	740 Bradford Way
Affiliation City:	Union City
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94587
Affiliation Phone:	(510) 476-1700
Affiliation Type Desc:	Environmental Contact
Entity Name:	Chris Young
Entity Title:	Not reported
Affiliation Address:	740 Bradford Way
Affiliation City:	Union City
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94587
Affiliation Phone:	Not reported
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	740 Bradford Way
Affiliation City:	Union City
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94587
Affiliation Phone:	Not reported
Affiliation Type Desc:	Legal Owner
Entity Name:	Cold Storage
Entity Title:	Not reported
Affiliation Address:	740 Bradford Way
Affiliation City:	Union city
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94587

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**COLD STORAGE (Continued)**

**S121772281**

Affiliation Phone: (510) 476-1700

Affiliation Type Desc: Operator  
Entity Name: Chris Young  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: (510) 552-2096

Affiliation Type Desc: Identification Signer  
Entity Name: Chris Young  
Entity Title: Service Manager  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

**CERS TANKS:**

Site ID: 390317  
CERS ID: 10003240  
Site Name: COLD STORAGE  
CERS Description: Chemical Storage Facilities

**Violations:**

Site ID: 390317  
Site Name: Cold Storage  
Violation Date: 02-20-2019  
Citation: HSC 6.95 25508.2 - California Health and Safety Code, Chapter 6.95, Section(s) 25508.2  
Violation Description: Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.  
Violation Notes: Not reported  
Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 390317  
Site Name: Cold Storage  
Violation Date: 02-10-2016  
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)  
Violation Description: Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.  
Violation Notes: Returned to compliance on 03/11/2016. OBSERVATION: The facility has not submitted the Hazardous Materials Inventory Chemical Description page for used oil (120 gallons), isocyanate, autofroth, 55 gallon drum (unknown contents) in the foam room to the CUPA. In addition, an inventory should be taken to confirm quantities of the remaining hazardous materials, especially the propane, nitrogen, and R507. The

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**COLD STORAGE (Continued)**

**S121772281**

hazardous material inventory should be revised in CERS. In general, the guidance states that the hazardous materials should be reported in the units at which they are stored (e.g. compressed gases in cubic feet, propane in gallons, etc). CORRECTIVE ACTION: Complete and submit the Hazardous Materials Inventory Chemical Description page for all materials listed above electronically in the California Environmental Reporting System (CERS) within 30 days.

Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 390317  
Site Name: Cold Storage  
Violation Date: 02-20-2019  
Citation: HSC 6.5 25123.3(h)(1) - California Health and Safety Code, Chapter 6.5, Section(s) 25123.3(h)(1)

Violation Description: Failure to send hazardous waste offsite for treatment, storage, or disposal within 180 days (or 270 days if waste is transported over 200 miles) for a generator who generates less than 1000 kilogram per month if all of the following conditions are met: (1) The quantity of hazardous waste accumulated onsite never exceeds 6,000 kilograms. (2) The generator complies with the requirements of 40 Code of Federal Regulations section 262.34(d), (e) and (f). (3) The generator does not hold acutely hazardous waste or extremely hazardous waste in an amount greater than one kilogram for more than 90 days.

Violation Notes: Not reported  
Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Site ID: 390317  
Site Name: Cold Storage  
Violation Date: 02-20-2019  
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)

Violation Description: Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.

Violation Notes: Not reported  
Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 390317  
Site Name: Cold Storage  
Violation Date: 02-20-2019  
Citation: 40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(iii)

Violation Description: Failure to ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies.

Violation Notes: Not reported  
Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Site ID: 390317

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**COLD STORAGE (Continued)**

**S121772281**

Site Name: Cold Storage  
Violation Date: 02-10-2016  
Citation: 22 CCR 23 66273.34 - California Code of Regulations, Title 22, Chapter 23, Section(s) 66273.34  
Violation Description: Failure to properly label the following categories of universal waste as: 1) Each batteries or the container in which the batteries are contained as "Universal Waste-Battery(ies)". 2) Each mercury-containing equipment or the container in which the mercury-containing equipment is contained as "Universal Waste -Mercury-Containing Equipment". 3) Each Florescent lamp or the container or package in which the lamps are contained as "Universal Waste-Lamp(s)". 4) Each electronic devices or the container or pallet in or on which the electronic devices are contained as "Universal Waste-Electronic Device(s)". 5) Each CRTs or the container or pallet in or on which the CRTs are contained as "Universal Waste-CRT(s)". 6) A container of CRT glass shall be labeled or marked clearly with the following phrase: "Universal Waste-CRT glass". 7) In lieu of labeling individual electronic devices, CRTs, and/or containers of CRT glass pursuant to subsections d) through f) of this section, a universal waste handler may combine, package, and accumulate those universal wastes in appropriate containers or within a designated area demarcated by boundaries that are clearly labeled with the applicable portion(s) of the following phrase: "Universal Waste-Electronic Device(s)/Universal Waste - CRT(s)/Universal Waste-CRT Glass".  
Violation Notes: Returned to compliance on 02/19/2016. OBSERVATION: Approximately 12 8-foot fluorescent tubes were observed placed in a corner of the facility with no protection or labeling. A generator shall label or mark universal waste with the words 'Universal Waste' and the type of waste (batteries, mercury containing equipment, lamps/bulbs, electronic devices, CRTs, aerosol cans). CORRECTIVE ACTION: Immediately label these wastes and ensure that all universal wastes are labeled with the required information.  
Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS  
Site ID: 390317  
Site Name: Cold Storage  
Violation Date: 02-20-2019  
Citation: HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple  
Violation Description: Hazardous Waste Generator Program - Training - General  
Violation Notes: Incomplete record of consolidated waste manifests; onsite cube tank has 120-gallon capacity but Safety Kleen receipts note removal of 150-gallons.  
Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS  
Site ID: 390317  
Site Name: Cold Storage  
Violation Date: 02-10-2016  
Citation: 22 CCR 15 66265.16 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.16  
Violation Description: Failure to provide employees within the first six months after the date of their employment, or assignment to the facility, or to work unsupervised, or to a new position at a facility with hazardous waste

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**COLD STORAGE (Continued)**

**S121772281**

training to ensure employees are competent in the following areas: hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed, emergency response and emergency equipment, and procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment. In addition, the owner/operator shall ensure facility personnel take part in an annual review of the initial training and training records training records on current personnel shall be kept until closure of the facility. Training records on former employees shall be kept for at least three years from the date the employee last worked at the facility. The records shall include the following: the job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job; a written job description for each position, duties of facility personnel assigned to each position, and a written description of the type and amount of both introductory and continuing training that will be given to each person filling a position.

Violation Notes: Returned to compliance on 02/19/2016. OBSERVATION: At the time of inspection, it could not be demonstrated that employees who handle hazardous waste were properly trained. The generator must ensure that all employees who handle hazardous waste are thoroughly familiar with proper waste handling and emergency procedures. This includes the person signing the manifests. CORRECTIVE ACTION: Immediately provide training to all employees who handle hazardous waste and submit a copy of the training documentation, including (employee names, date of training, and training topics) to the CUPA within 30 days.

Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Site ID: 390317  
Site Name: Cold Storage  
Violation Date: 02-10-2016  
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)

Violation Description: Failure to properly label hazardous waste accumulation containers with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.

Violation Notes: Returned to compliance on 02/19/2016.  
Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Site ID: 390317  
Site Name: Cold Storage  
Violation Date: 02-10-2016  
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)

Violation Description: Failure to establish and electronically submit an adequate emergency response plan and procedures for a release or threatened release of a hazardous material.

Violation Notes: Returned to compliance on 03/11/2016. OBSERVATION: The Emergency Response plan and procedures submitted to the CUPA did not include emergency response and notification phone numbers, location and type of emergency response equipment, emergency response procedures. CORRECTIVE ACTION: Revise the emergency response plan and procedures

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**COLD STORAGE (Continued)**

**S121772281**

to include all required content and submit electronically in the California Environmental Reporting System (CERS). Note: UCEPD will email an Emergency Response and Contingency Plan template for your use.

Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 390317  
Site Name: Cold Storage  
Violation Date: 02-10-2016  
Citation: HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)  
Violation Description: Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.  
Violation Notes: Returned to compliance on 03/11/2016.

Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 390317  
Site Name: Cold Storage  
Violation Date: 02-10-2016  
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)  
Violation Description: Failure to complete and electronically submit a site map with all required content.  
Violation Notes: Returned to compliance on 03/11/2016. OBSERVATION: The annotated site map submitted to the CUPA does not include storm drains, locations of hazardous materials and hazardous waste, emergency response equipment. CORRECTIVE ACTION: Revise the annotated Site Map to include all required content and submit electronically in the California Environmental Reporting System (CERS) within 30 days.

Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 390317  
Site Name: Cold Storage  
Violation Date: 02-10-2016  
Citation: 22 CCR 15 66265.174 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.174  
Violation Description: Failure to inspect hazardous waste storage areas at least weekly.  
Violation Notes: Returned to compliance on 02/19/2016. OBSERVATION: Weekly inspections of the used oil tank is not being conducted. The owner or operator shall inspect areas used for container storage or transfer, at least weekly, looking for leaking containers and for deterioration of containers and the containment system caused by corrosion and other factors. CORRECTIVE ACTION: Immediately begin conducting the necessary weekly inspections for all hazardous waste containers at this facility. Provide documentation within 30 days.

Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**COLD STORAGE (Continued)**

**S121772281**

Evaluation:

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 02-10-2016  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: CERS information was last submitted on 3/11/2015. Routine inspection of the facility, met with Sarah DeMateo, Safety Manager.  
Eval Division: Union City Environmental Programs  
Eval Program: HMRRP  
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 02-20-2019  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Electronic signature not captured  
Eval Division: Union City Environmental Programs  
Eval Program: HMRRP  
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 02-20-2019  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Electronic signature not captured Waste manifests 5/5/2016: 50 gallons waste oil 8/3/2016: 130 gallons waste oil 4/10/2017: no receipt available 1/12/2018: 150 gallons waste oil  
Eval Division: Union City Environmental Programs  
Eval Program: HW  
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 02-10-2016  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Not reported  
Eval Division: Union City Environmental Programs  
Eval Program: HW  
Eval Source: CERS

Enforcement Action:

Site ID: 390317  
Site Name: Cold Storage  
Site Address: 740 BRADFORD WAY  
Site City: UNION CITY  
Site Zip: 94587  
Enf Action Date: 02-10-2016  
Enf Action Type: Notice of Violation (Unified Program)  
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection  
Enf Action Notes: Not reported  
Enf Action Division: Union City Environmental Programs  
Enf Action Program: HMRRP  
Enf Action Source: CERS

Site ID: 390317  
Site Name: Cold Storage

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**COLD STORAGE (Continued)**

**S121772281**

Site Address: 740 BRADFORD WAY  
Site City: UNION CITY  
Site Zip: 94587  
Enf Action Date: 02-10-2016  
Enf Action Type: Notice of Violation (Unified Program)  
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection  
Enf Action Notes: Not reported  
Enf Action Division: Union City Environmental Programs  
Enf Action Program: HW  
Enf Action Source: CERS

Coordinates:  
Site ID: 390317  
Facility Name: Cold Storage  
Env Int Type Code: HMBP  
Program ID: 10003240  
Coord Name: Not reported  
Ref Point Type Desc: Unknown  
Latitude: 37.595040  
Longitude: -122.013255

Affiliation:  
Affiliation Type Desc: CUPA District  
Entity Name: Union City Environmental Programs  
Entity Title: Not reported  
Affiliation Address: 34009 Alvarado-Niles Road  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: (510) 675-5360

Affiliation Type Desc: Document Preparer  
Entity Name: Chris Young  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Parent Corporation  
Entity Name: Cold Storage  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Property Owner  
Entity Name: Don Neiderhaus  
Entity Title: Not reported  
Affiliation Address: 740 Bradford Way

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**COLD STORAGE (Continued)**

**S121772281**

Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: United States  
Affiliation Zip: 94587  
Affiliation Phone: (510) 476-1700

Affiliation Type Desc: Environmental Contact  
Entity Name: Chris Young  
Entity Title: Not reported  
Affiliation Address: 740 Bradford Way  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address  
Entity Name: Mailing Address  
Entity Title: Not reported  
Affiliation Address: 740 Bradford Way  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner  
Entity Name: Cold Storage  
Entity Title: Not reported  
Affiliation Address: 740 Bradford Way  
Affiliation City: Union city  
Affiliation State: CA  
Affiliation Country: United States  
Affiliation Zip: 94587  
Affiliation Phone: (510) 476-1700

Affiliation Type Desc: Operator  
Entity Name: Chris Young  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: (510) 552-2096

Affiliation Type Desc: Identification Signer  
Entity Name: Chris Young  
Entity Title: Service Manager  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**E41**      **COLD STORAGE MANUFACTURING INC**  
**740 BRADFORD WAY**  
**UNION CITY, CA 94587**

**FINDS**    **1023337936**  
**ECHO**      **N/A**

< 1/8  
 1 ft.

**Site 2 of 4 in cluster E**

**Relative:**  
**Lower**

FINDS:

**Actual:**  
**60 ft.**

Registry ID:                    110066331829

Environmental Interest/Information System  
 STATE MASTER

Registry ID:                    110070327188

Environmental Interest/Information System  
 OSHA ESTABLISHMENT

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Registry ID:                    110070327189

Environmental Interest/Information System  
 OSHA ESTABLISHMENT

Registry ID:                    110070327190

Environmental Interest/Information System  
 OSHA ESTABLISHMENT

Registry ID:                    110070327191

Environmental Interest/Information System  
 OSHA ESTABLISHMENT

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:                            1023337936  
 Registry ID:                    110070327188  
 DFR URL:                        <http://echo.epa.gov/detailed-facility-report?fid=110070327188>

**B42**      **DAVE TRANSPORTATION SVS INC**  
**705 BRADFORD WAY**  
**UNION CITY, CA 94587**

**HAZNET**    **S113043855**  
**N/A**

< 1/8  
 1 ft.

**Site 5 of 8 in cluster B**

**Relative:**  
**Lower**

HAZNET:

**Actual:**  
**60 ft.**

Site Name:                    DAVE TRANSPORTATION SVS INC  
 Year:                            2005  
 GEPAID:                        CAL000056791

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**DAVE TRANSPORTATION SVS INC (Continued)**

**S113043855**

Contact: LISA PEARCE  
Telephone: 8005223283  
Mailing Name: Not reported  
Mailing Address: 201 N CIVIC DR STE 150  
Mailing City,St,Zip: WALNUT CREEK, CA 945960000  
Gen County: Not reported  
TSD EPA ID: CAT080013352  
TSD County: Not reported  
Tons: 0.2  
CA Waste Code: 221-  
Method: R01-  
Facility County: Alameda

Site Name: DAVE TRANSPORTATION SVS INC  
Year: 1997  
GEPaid: CAL000056791  
Contact: DAVE TRANSPORTATION SVS INC  
Telephone: 8005223283  
Mailing Name: Not reported  
Mailing Address: 201 N CIVIC DR STE 150  
Mailing City,St,Zip: WALNUT CREEK, CA 945960000  
Gen County: Not reported  
TSD EPA ID: CAD000088252  
TSD County: Not reported  
Tons: .3300  
CA Waste Code: 223-  
Method: H01-  
Facility County: 1

Site Name: DAVE TRANSPORTATION SVS INC  
Year: 1997  
GEPaid: CAL000056791  
Contact: DAVE TRANSPORTATION SVS INC  
Telephone: 8005223283  
Mailing Name: Not reported  
Mailing Address: 201 N CIVIC DR STE 150  
Mailing City,St,Zip: WALNUT CREEK, CA 945960000  
Gen County: Not reported  
TSD EPA ID: CAD000088252  
TSD County: Not reported  
Tons: .1650  
CA Waste Code: 223-  
Method: -  
Facility County: 1

Site Name: DAVE TRANSPORTATION SVS INC  
Year: 1996  
GEPaid: CAL000056791  
Contact: DAVE TRANSPORTATION SVS INC  
Telephone: 8005223283  
Mailing Name: Not reported  
Mailing Address: 201 N CIVIC DR STE 150  
Mailing City,St,Zip: WALNUT CREEK, CA 945960000  
Gen County: Not reported  
TSD EPA ID: CAD000088252  
TSD County: Not reported  
Tons: .1375

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**DAVE TRANSPORTATION SVS INC (Continued)**

**S113043855**

CA Waste Code: 223-  
Method: -  
Facility County: 1

Site Name: DAVE TRANSPORTATION SVS INC  
Year: 1996  
GEPaid: CAL000056791  
Contact: DAVE TRANSPORTATION SVS INC  
Telephone: 8005223283  
Mailing Name: Not reported  
Mailing Address: 201 N CIVIC DR STE 150  
Mailing City,St,Zip: WALNUT CREEK, CA 945960000  
Gen County: Not reported  
TSD EPA ID: CAD000088252  
TSD County: Not reported  
Tons: .4125  
CA Waste Code: 223-  
Method: H01-  
Facility County: 1

[Click this hyperlink](#) while viewing on your computer to access 5 additional CA\_HAZNET: record(s) in the EDR Site Report.

**E43**

**UNION CITY PROPERTY  
BRADFORD WAY & ZWISSIG WAY, PORTION OF 33955 7TH ST AND RR P  
UNION CITY, CA 94587**

**ENVIROSTOR  
VCP**

**S118466275  
N/A**

< 1/8  
1 ft.

**Site 3 of 4 in cluster E**

**Relative:  
Lower  
Actual:  
59 ft.**

ENVIROSTOR:  
Facility ID: 60002290  
Status: Active  
Status Date: 01/12/2016  
Site Code: 202076  
Site Type: Voluntary Cleanup  
Site Type Detailed: Voluntary Cleanup  
Acres: 26  
NPL: NO  
Regulatory Agencies: SMBRP  
Lead Agency: SMBRP  
Program Manager: Tom Price  
Supervisor: Janet Naito  
Division Branch: Cleanup Berkeley  
Assembly: , 20  
Senate: , 10  
Special Program: CLRRRA Liability Immunity (AB 389)  
Restricted Use: NO  
Site Mgmt Req: NONE SPECIFIED  
Funding: Responsible Party  
Latitude: 37.59436  
Longitude: -122.0142  
APN: 087 002101302, 087 002301000, 087 002301300, 087 002301400, 087 002303800  
Past Use: AGRICULTURAL - ROW CROPS, UNKNOWN  
Potential COC: 1,1,1,2-Tetrachloroethane  
Confirmed COC: 1,1,1,2-Tetrachloroethane  
Potential Description: SOIL, SV  
Alias Name: 087 002101302

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**UNION CITY PROPERTY (Continued)**

**S118466275**

Alias Type: APN  
Alias Name: 087 002301000  
Alias Type: APN  
Alias Name: 087 002301300  
Alias Type: APN  
Alias Name: 087 002301400  
Alias Type: APN  
Alias Name: 087 002303800  
Alias Type: APN  
Alias Name: 202076  
Alias Type: Site Code - Historical  
Alias Name: 202075  
Alias Type: Project Code (Site Code)  
Alias Name: 202076  
Alias Type: Project Code (Site Code)  
Alias Name: 60002290  
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Risk Assessment Report  
Completed Date: 11/22/2013

Comments: This report was prepared prior to DTSC's involvement with the site. The report discussed a soil gas investigation (8 probes to the 6-foot depth) and associated human health-related concerns related to the presence of chlorinated solvents.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Site Characterization Report  
Completed Date: 12/18/2013

Comments: This report was prepared for the Zwissig Way parcel prior to DTSC's involvement with the site. The report provided additional soil gas characterization (4 additional probed to 5.5 foot depth) for chlorinated solvents to supplement the previous investigation.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Site Characterization Report  
Completed Date: 11/23/2013

Comments: The report was prepared for the Zwissig Way parcel prior to DTSC's involvement with the site. The report described an investigation of the former agricultural parcel for organochlorine pesticides.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Site Characterization Report  
Completed Date: 02/27/2015

Comments: The report was prepared for the 33955 7th Street parcel prior to DTSC's involvement with the site. The report discussed the results of investigation for chlorinated solvents in soil gas, organochlorine pesticides in shallow soils, and a railroad spur for railroad operations-related contaminants.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Phase 1

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**UNION CITY PROPERTY (Continued)**

**S118466275**

Completed Date: 02/26/2015  
Comments: The report for the 33955 7th Street parcel was prepared prior to DTSC's involvement with the site. The report recommended investigation for chlorinated solvents in soil gas, organochlorine pesticides in shallow soils, and a railroad spur for railroad operations-related contaminants.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Site Characterization Report  
Completed Date: 09/08/2015  
Comments: The report was prepared for a railroad parcel (APN 87-21-13-2) prior to DTSC's involvement with the site. The report describes investigation of the site for railroad operations-related contaminants.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Phase 1  
Completed Date: 09/14/2017  
Comments: The report identified Recognized Environmental Conditions (RECs) including: 1) an offsite volatile organic compounds release has impacted groundwater below the property and 2) elevated levels of pesticides have been identified in shallow soils.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Phase 1  
Completed Date: 11/21/2013  
Comments: The report was prepared (for the Zwissig Way parcel) prior to DTSC's involvement with the site. The report identified environmental concerns including an upgradient release of chlorinated solvents impacting groundwater beneath the site, and possible presence of pesticides in shallow soil.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Phase 1  
Completed Date: 09/14/2017  
Comments: The report identified Recognized Environmental Conditions (RECs) including: 1) an offsite volatile organic compounds release has impacted groundwater below the property and 2) elevated levels of pesticides have been identified in shallow soils.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Application  
Completed Date: 10/20/2015  
Comments: Application was made to receive oversight under the California Land Reuse and Revitalization Act (CLRRA).

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Correspondence  
Completed Date: 08/09/2016  
Comments: Local agencies were notified that DTSC entered into a California Land Use and Revitalization Act of 2004 (CLRRA) agreement with immunity



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**UNION CITY PROPERTY (Continued)**

**S118466275**

from liability for certain hazardous materials response costs and claims.

Future Area Name: PROJECT WIDE  
Future Sub Area Name: Not reported  
Future Document Type: California Land Reuse and Revitalization Agreement  
Future Due Date: 2019  
Schedule Area Name: Not reported  
Schedule Sub Area Name: Not reported  
Schedule Document Type: Not reported  
Schedule Due Date: Not reported  
Schedule Revised Date: Not reported

VCP:

Facility ID: 60002290  
Site Type: Voluntary Cleanup  
Site Type Detail: Voluntary Cleanup  
Site Mgmt. Req.: NONE SPECIFIED  
Acres: 26  
National Priorities List: NO  
Cleanup Oversight Agencies: SMBRP  
Lead Agency: SMBRP  
Lead Agency Description: DTSC - Site Cleanup Program  
Project Manager: Tom Price  
Supervisor: Janet Naito  
Division Branch: Cleanup Berkeley  
Site Code: 202076  
Assembly: , 20  
Senate: , 10  
Special Programs Code: CLRRRA Liability Immunity (AB 389)  
Status: Active  
Status Date: 01/12/2016  
Restricted Use: NO  
Funding: Responsible Party  
Lat/Long: 37.59436 / -122.0142  
APN: 087 002101302, 087 002301000, 087 002301300, 087 002301400, 087 002303800  
Past Use: AGRICULTURAL - ROW CROPS, UNKNOWN  
Potential COC: 30535  
Confirmed COC: 30535  
Potential Description: SOIL, SV  
Alias Name: 087 002101302  
Alias Type: APN  
Alias Name: 087 002301000  
Alias Type: APN  
Alias Name: 087 002301300  
Alias Type: APN  
Alias Name: 087 002301400  
Alias Type: APN  
Alias Name: 087 002303800  
Alias Type: APN  
Alias Name: 202076  
Alias Type: Site Code - Historical  
Alias Name: 202075  
Alias Type: Project Code (Site Code)  
Alias Name: 202076  
Alias Type: Project Code (Site Code)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**UNION CITY PROPERTY (Continued)**

**S118466275**

Alias Name: 60002290  
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Risk Assessment Report  
Completed Date: 11/22/2013

Comments: This report was prepared prior to DTSC's involvement with the site. The report discussed a soil gas investigation (8 probes to the 6-foot depth) and associated human health-related concerns related to the presence of chlorinated solvents.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Site Characterization Report  
Completed Date: 12/18/2013

Comments: This report was prepared for the Zwissig Way parcel prior to DTSC's involvement with the site. The report provided additional soil gas characterization (4 additional probed to 5.5 foot depth) for chlorinated solvents to supplement the previous investigation.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Site Characterization Report  
Completed Date: 11/23/2013

Comments: The report was prepared for the Zwissig Way parcel prior to DTSC's involvement with the site. The report described an investigation of the former agricultural parcel for organochlorine pesticides.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Site Characterization Report  
Completed Date: 02/27/2015

Comments: The report was prepared for the 33955 7th Street parcel prior to DTSC's involvement with the site. The report discussed the results of investigation for chlorinated solvents in soil gas, organochlorine pesticides in shallow soils, and a railroad spur for railroad operations-related contaminants.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Phase 1  
Completed Date: 02/26/2015

Comments: The report for the 33955 7th Street parcel was prepared prior to DTSC's involvement with the site. The report recommended investigation for chlorinated solvents in soil gas, organochlorine pesticides in shallow soils, and a railroad spur for railroad operations-related contaminants.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Site Characterization Report  
Completed Date: 09/08/2015

Comments: The report was prepared for a railroad parcel (APN 87-21-13-2) prior to DTSC's involvement with the site. The report describes investigation of the site for railroad operations-related contaminants.

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**UNION CITY PROPERTY (Continued)**

**S118466275**

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Phase 1  
Completed Date: 09/14/2017  
Comments: The report identified Recognized Environmental Conditions (RECs) including: 1) an offsite volatile organic compounds release has impacted groundwater below the property and 2) elevated levels of pesticides have been identified in shallow soils.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Phase 1  
Completed Date: 11/21/2013  
Comments: The report was prepared (for the Zwissig Way parcel) prior to DTSC's involvement with the site. The report identified environmental concerns including an upgradient release of chlorinated solvents impacting groundwater beneath the site, and possible presence of pesticides in shallow soil.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Phase 1  
Completed Date: 09/14/2017  
Comments: The report identified Recognized Environmental Conditions (RECs) including: 1) an offsite volatile organic compounds release has impacted groundwater below the property and 2) elevated levels of pesticides have been identified in shallow soils.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Application  
Completed Date: 10/20/2015  
Comments: Application was made to receive oversight under the California Land Reuse and Revitalization Act (CLRRRA).

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Correspondence  
Completed Date: 08/09/2016  
Comments: Local agencies were notified that DTSC entered into a California Land Use and Revitalization Act of 2004 (CLRRRA) agreement with immunity from liability for certain hazardous materials response costs and claims.

Future Area Name: PROJECT WIDE  
Future Sub Area Name: Not reported  
Future Document Type: California Land Reuse and Revitalization Agreement  
Future Due Date: 2019  
Schedule Area Name: Not reported  
Schedule Sub Area Name: Not reported  
Schedule Document Type: Not reported  
Schedule Due Date: Not reported  
Schedule Revised Date: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**E44**      **COLD STORAGE MANUFACTURING**      **RCRA NonGen / NLR**      **1024836138**  
**740 BRADFORD WAY**      **CAL000379064**  
**< 1/8**      **UNION CITY, CA 94587**  
**1 ft.**

**Site 4 of 4 in cluster E**

**Relative:**  
**Lower**

RCRA NonGen / NLR:

**Actual:**  
**60 ft.**

Date form received by agency: 10/17/2012  
Facility name: COLD STORAGE MANUFACTURING  
Facility address: 740 BRADFORD WAY  
UNION CITY, CA 94587  
EPA ID: CAL000379064  
Contact: CHRIS YOUNG  
Contact address: 740 BRADFORD WAY  
UNION CITY, CA 94587  
Contact country: Not reported  
Contact telephone: 510-476-1700  
Contact email: CYOUNG@COLDSTORAGEMFG.COM  
EPA Region: 09  
Classification: Non-Generator  
Description: Handler: Non-Generators do not presently generate hazardous waste

**Owner/Operator Summary:**

Owner/operator name: COLD STORAGE MANUFACTURING  
Owner/operator address: 740 BRADFORD WAY  
UNION CITY, CA 94587  
Owner/operator country: Not reported  
Owner/operator telephone: 510-476-1700  
Owner/operator email: Not reported  
Owner/operator fax: Not reported  
Owner/operator extension: Not reported  
Legal status: Other  
Owner/Operator Type: Owner  
Owner/Op start date: Not reported  
Owner/Op end date: Not reported

Owner/operator name: CHRIS YOUNG  
Owner/operator address: 740 BRADFORD WAY  
UNION CITY, CA 94587  
Owner/operator country: Not reported  
Owner/operator telephone: 510-476-1700  
Owner/operator email: Not reported  
Owner/operator fax: Not reported  
Owner/operator extension: Not reported  
Legal status: Other  
Owner/Operator Type: Operator  
Owner/Op start date: Not reported  
Owner/Op end date: Not reported

**Handler Activities Summary:**

U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): No  
Recycler of hazardous waste: No  
Transporter of hazardous waste: Yes  
Treater, storer or disposer of HW: No  
Underground injection activity: No  
On-site burner exemption: No  
Furnace exemption: No

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**COLD STORAGE MANUFACTURING (Continued)**

**1024836138**

Used oil fuel burner: No  
Used oil processor: No  
User oil refiner: No  
Used oil fuel marketer to burner: No  
Used oil Specification marketer: No  
Used oil transfer facility: No  
Used oil transporter: No

Violation Status: No violations found

**B45**

**LIDLAW TRANSIT SERVICES INC.  
705 BRADFORD WAY  
UNION CITY, CA 94587**

**HAZNET S113083230  
N/A**

**< 1/8  
1 ft.**

**Site 6 of 8 in cluster B**

**Relative:  
Lower**

HAZNET:  
Site Name: LAIDLAW TRANSIT SERVICES INC.  
Year: 1999  
GEPaid: CAL000153480  
Contact: BILL YATES/VICE-PRESIDENT  
Telephone: 8008213451  
Mailing Name: Not reported  
Mailing Address: 1250 SAN CARLOS AVE  
Mailing City,St,Zip: SAN CARLOS, CA 940700000  
Gen County: Not reported  
TSD EPA ID: CA0000084517  
TSD County: Not reported  
Tons: .1376  
CA Waste Code: 343-  
Method: -  
Facility County: 1

**Actual:  
60 ft.**

Site Name: LAIDLAW TRANSIT SERVICES INC.  
Year: 1999  
GEPaid: CAL000153480  
Contact: BILL YATES/VICE-PRESIDENT  
Telephone: 8008213451  
Mailing Name: Not reported  
Mailing Address: 1250 SAN CARLOS AVE  
Mailing City,St,Zip: SAN CARLOS, CA 940700000  
Gen County: Not reported  
TSD EPA ID: CAD000088252  
TSD County: Not reported  
Tons: .1650  
CA Waste Code: 223-  
Method: H01-  
Facility County: 1

MAP FINDINGS

Map ID			EDR ID Number
Direction			EPA ID Number
Distance			
Elevation	Site	Database(s)	

<b>B46</b> <b>ESE</b> <b>&lt; 1/8</b> <b>0.004 mi.</b> <b>19 ft.</b>	<b>HARTUNG GLASS</b> <b>700 BRADFORD ST</b> <b>UNION CITY, CA 94587</b>  <b>Site 7 of 8 in cluster B</b>	<b>CERS HAZ WASTE</b> <b>CERS</b>	<b>S121740957</b> <b>N/A</b>
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<b>Relative:</b> <b>Lower</b>  <b>Actual:</b> <b>60 ft.</b>	<table border="0" style="width: 100%;"> <tr> <td style="width: 15%;">CERS HAZ WASTE:</td> <td></td> </tr> <tr> <td>Site ID:</td> <td>121777</td> </tr> <tr> <td>CERS ID:</td> <td>10003654</td> </tr> <tr> <td>CERS Description:</td> <td>Hazardous Waste Generator</td> </tr> </table>	CERS HAZ WASTE:		Site ID:	121777	CERS ID:	10003654	CERS Description:	Hazardous Waste Generator
CERS HAZ WASTE:									
Site ID:	121777								
CERS ID:	10003654								
CERS Description:	Hazardous Waste Generator								

Violations:	
Site ID:	121777
Site Name:	Hartung Glass
Violation Date:	02-11-2016
Citation:	22 CCR 15 66265.16 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.16

Violation Description:	<p>Failure to provide employees within the first six months after the date of their employment, or assignment to the facility, or to work unsupervised, or to a new position at a facility with hazardous waste training to ensure employees are competent in the following areas: hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed, emergency response and emergency equipment, and procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment. In addition, the owner/operator shall ensure facility personnel take part in an annual review of the initial training and training records training records on current personnel shall be kept until closure of the facility. Training records on former employees shall be kept for at least three years from the date the employee last worked at the facility. The records shall include the following: the job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job; a written job description for each position, duties of facility personnel assigned to each position, and a written description of the type and amount of both introductory and continuing training that will be given to each person filling a position.</p>
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Violation Notes:	<p>Returned to compliance on 02/11/2016. OBSERVATION: The Owner/Operator failed to properly train personnel who handle hazardous waste. All employees shall be trained within six months of assignment and take part in an annual review of the initial training received. CORRECTIVE ACTION: Immediately provide employees with initial or refresher hazardous waste training as required. Submit a copy of the roster and the syllabus to the CUPA by within 30 days.</p>
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Violation Division:	Union City Environmental Programs
Violation Program:	HW
Violation Source:	CERS

Site ID:	121777
Site Name:	Hartung Glass
Violation Date:	02-14-2019
Citation:	HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description:	Hazardous Waste Generator Program - Administration/Documentation - General

Violation Notes:	Not reported
Violation Division:	Union City Environmental Programs
Violation Program:	HW
Violation Source:	CERS

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HARTUNG GLASS (Continued)**

**S121740957**

Site ID: 121777  
Site Name: Hartung Glass  
Violation Date: 02-11-2016  
Citation: HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)  
Violation Description: Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.  
Violation Notes: Returned to compliance on 08/18/2017. OBSERVATION: Annual training documentation for all applicable employees was not available. According to Erick Maakestad annual employee training is not currently being conducted. CORRECTIVE ACTION: Submit documentation to the CUPA demonstrating that employees have received training on safe handling of hazardous materials and the Emergency Response Plan within 30 days.  
Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 121777  
Site Name: Hartung Glass  
Violation Date: 02-11-2016  
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)  
Violation Description: Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.  
Violation Notes: Returned to compliance on 03/03/2016. OBSERVATION: The facility has not submitted the Hazardous Materials Inventory Chemical Description page for oil (4 55-gallons), used oil, and coolant to the CUPA. In addition, the following hazardous material inventory should be revised: oxygen, acetylene, propane, and nitrogen. CORRECTIVE ACTION: Complete and submit the Hazardous Materials Inventory Chemical Description page for all materials listed above electronically in the California Environmental Reporting System (CERS) within 30 days.  
Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 121777  
Site Name: Hartung Glass  
Violation Date: 02-14-2019  
Citation: HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)  
Violation Description: Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.  
Violation Notes: Not reported  
Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 121777  
Site Name: Hartung Glass  
Violation Date: 02-14-2019  
Citation: 40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HARTUNG GLASS (Continued)**

**S121740957**

Violation Description: 40, Chapter 1, Section(s) 262.34(d)(5)(iii)  
Failure to ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies.

Violation Notes: Not reported

Violation Division: Union City Environmental Programs

Violation Program: HW

Violation Source: CERS

Site ID: 121777

Site Name: Hartung Glass

Violation Date: 02-11-2016

Citation: 19 CCR 6.95 25508(a)(1) - California Code of Regulations, Title 19, Chapter 6.95, Section(s) 25508(a)(1)

Violation Description: Failure to complete and electronically submit the Business Activities Page and/or Business Owner Operator Identification Page.

Violation Notes: Returned to compliance on 03/03/2016. OBSERVATION: The Owner/Operator information has incorrect and out of date information including Primary and Secondary Emergency contacts and Environmental contact. In addition, on the Business Activities Page, the answer to the question about remote waste consolidation should be No. CORRECTIVE ACTION: Complete the Owner/Operator page and submit electronically in the California Environmental Reporting System (CERS) within 30 days.

Violation Division: Union City Environmental Programs

Violation Program: HMRRP

Violation Source: CERS

Site ID: 121777

Site Name: Hartung Glass

Violation Date: 02-14-2019

Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)

Violation Description: Failure to complete and electronically submit a site map with all required content.

Violation Notes: Not reported

Violation Division: Union City Environmental Programs

Violation Program: HMRRP

Violation Source: CERS

Site ID: 121777

Site Name: Hartung Glass

Violation Date: 02-14-2019

Citation: HSC 6.95 25505(c) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(c)

Violation Description: Failure to have a business plan readily available to personnel of the business or the unified program facility with responsibilities for emergency response or training.

Violation Notes: Current staff have not been trained regularly according to new site manager and Jeff Edvalds.

Violation Division: Union City Environmental Programs

Violation Program: HMRRP

Violation Source: CERS

Site ID: 121777

Site Name: Hartung Glass

Violation Date: 02-14-2019

Citation: HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5,



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HARTUNG GLASS (Continued)**

**S121740957**

Section(s) Multiple  
Violation Description: Hazardous Waste Generator Program - Training - General  
Violation Notes: Not reported  
Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Site ID: 121777  
Site Name: Hartung Glass  
Violation Date: 02-14-2019  
Citation: 22 CCR 23 66273.34 - California Code of Regulations, Title 22, Chapter 23, Section(s) 66273.34  
Violation Description: Failure to label or mark each individual or container or the designated area of universal waste as required. 1) Waste batteries shall be marked with "Universal Waste-Battery(ies)". 2) Mercury containing equipment shall be marked with "Universal Waste -Mercury-Containing Equipment?". 3) Lamps shall be marked with "Universal Waste-Lamp(s)". 4) Each electronic devices or the container or the designated area shall be marked with "Universal Waste-Electronic Device(s)". 5) Each CRTs or the container or the designated area shall be marked with "Universal Waste-CRT(s)". 6) CRT glass or the designated area shall be marked with "Universal Waste-CRT glass".  
Violation Notes: Not reported  
Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Site ID: 121777  
Site Name: Hartung Glass  
Violation Date: 02-11-2016  
Citation: 22 CCR 15 66265.174 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.174  
Violation Description: Failure to inspect hazardous waste storage areas at least weekly.  
Violation Notes: Returned to compliance on 03/03/2016. OBSERVATION: The used oil drums are not being inspected on a regular basis. The owner or operator shall inspect areas used for container storage or transfer, at least weekly, looking for leaking containers and for deterioration of containers and the containment system caused by corrosion and other factors. CORRECTIVE ACTION: Immediately begin conducting the necessary weekly inspections for all hazardous waste containers at this facility and provide documentation to the CUPA within 30 days.  
Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Site ID: 121777  
Site Name: Hartung Glass  
Violation Date: 02-11-2016  
Citation: 22 CCR 16 66266.130 - California Code of Regulations, Title 22, Chapter 16, Section(s) 66266.130  
Violation Description: Failure to properly handle, manage, label, and recycle used oil and fuel filters.  
Violation Notes: Returned to compliance on 03/03/2016. OBSERVATION: Generator failed to properly handle, manage, label, and/or recycle used oil. The used oil drum did not have a hazardous waste label and was not closed. In addition, two drums of used oil were sent to the Union Facility from

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HARTUNG GLASS (Continued)**

**S121740957**

Hartung's Sacramento facility. These drums of used oil should be properly disposed using the EPA ID number at the facility in which it was generated. CORRECTIVE ACTION: Owner/Operator shall immediately comply with the Title 22 regulations with regards to the proper handling, management, labeling and recycling of used oil. Verify compliance with the CUPA within 30 days.

Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Site ID: 121777  
Site Name: Hartung Glass  
Violation Date: 02-14-2019  
Citation: HSC 6.5 25250.22 - California Health and Safety Code, Chapter 6.5, Section(s) 25250.22  
Violation Description: Failure to properly manage used oil and/or fuel filters in accordance with the requirements.  
Violation Notes: Used oil is from the Sacramento location. This facility does not meet criteria for remote consolidation facility. Remove oil within 30 days.

Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Site ID: 121777  
Site Name: Hartung Glass  
Violation Date: 02-14-2019  
Citation: HSC 6.95 25508.2 - California Health and Safety Code, Chapter 6.95, Section(s) 25508.2  
Violation Description: Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.  
Violation Notes: Inconsistent electronic submittals on 6/22/2018, 3/3/2016, 1/23/2014, etc. Advised personnel that HMBP is an annual recertification and submittal of all 3 elements.

Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 121777  
Site Name: Hartung Glass  
Violation Date: 02-14-2019  
Citation: 22 CCR 12 66262.12 - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.12  
Violation Description: Failure to obtain an Identification Number prior to treating, storing, disposing of, transporting or offering for transportation any hazardous waste.  
Violation Notes: Not reported

Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Site ID: 121777  
Site Name: Hartung Glass  
Violation Date: 02-14-2019  
Citation: HSC 6.95 25508.1(a)-(f) - California Health and Safety Code, Chapter 6.95, Section(s) 25508.1(a)-(f)  
Violation Description: Failure to electronically update business plan within 30 days of any

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HARTUNG GLASS (Continued)**

**S121740957**

one of the following events: A 100 percent or more increase in the quantity of a previously disclosed material. Any handling of a previously undisclosed hazardous materials at or above reportable quantities. A change of business address, business ownership, or business name. A substantial change in the handler's operations that requires modification to any portion of the business plan.

Violation Notes: Not reported  
Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 121777  
Site Name: Hartung Glass  
Violation Date: 02-14-2019  
Citation: 22 CCR 23 66273.36 - California Code of Regulations, Title 22, Chapter 23, Section(s) 66273.36  
Violation Description: Failure of universal waste handler to provide initial and/or annual refresher training for employees who manage or handle universal waste and to maintain a written record for three years of personnel who took the initial or annual training.

Violation Notes: Not reported  
Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Site ID: 121777  
Site Name: Hartung Glass  
Violation Date: 02-11-2016  
Citation: 22 CCR 12 66262.12 - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.12  
Violation Description: Failure to obtain and/or maintain an Active EPA ID.  
Violation Notes: Returned to compliance on 03/21/2016. OBSERVATION: This facility's EPA ID number is inactive. A hazardous waste generator shall not treat, store, dispose of, transport or offer for transportation, hazardous waste without an EPA ID number. EPA ID CAL000389421 was inactivated by DTSC on 06-30-2015. CORRECTIVE ACTION: Immediately contact DTSC and reactivate your EPA ID number and submit evidence to the CUPA within 30 days.  
Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Site ID: 121777  
Site Name: Hartung Glass  
Violation Date: 02-14-2019  
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)  
Violation Description: Failure to establish and electronically submit an adequate training program in safety procedures in the event of a release or threatened release of a hazardous material.  
Violation Notes: Facility cannot provide training documentation for new hires or annual training for existing employees. No specific training on Sulfur Dioxide gas.  
Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HARTUNG GLASS (Continued)**

**S121740957**

Evaluation:

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 02-14-2019  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Sent by email; electronic signature not captured.  
Eval Division: Union City Environmental Programs  
Eval Program: HMRRP  
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 02-11-2016  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Routine inspection of the facility. Met with Eric Maakestad,  
Production Manager.  
Eval Division: Union City Environmental Programs  
Eval Program: HW  
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 02-11-2016  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Routine inspection of the facility. Met with Erick Maakestad,  
Production Manager  
Eval Division: Union City Environmental Programs  
Eval Program: HMRRP  
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 02-14-2019  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Not reported  
Eval Division: Union City Environmental Programs  
Eval Program: HW  
Eval Source: CERS

Enforcement Action:

Site ID: 121777  
Site Name: Hartung Glass  
Site Address: 700 BRADFORD ST  
Site City: UNION CITY  
Site Zip: 94587  
Enf Action Date: 02-11-2016  
Enf Action Type: Notice of Violation (Unified Program)  
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection  
Enf Action Notes: Not reported  
Enf Action Division: Union City Environmental Programs  
Enf Action Program: HMRRP  
Enf Action Source: CERS

Site ID: 121777  
Site Name: Hartung Glass  
Site Address: 700 BRADFORD ST

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HARTUNG GLASS (Continued)**

**S121740957**

Site City: UNION CITY  
Site Zip: 94587  
Enf Action Date: 02-11-2016  
Enf Action Type: Notice of Violation (Unified Program)  
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection  
Enf Action Notes: Not reported  
Enf Action Division: Union City Environmental Programs  
Enf Action Program: HW  
Enf Action Source: CERS

Coordinates:

Site ID: 121777  
Facility Name: Hartung Glass  
Env Int Type Code: HWG  
Program ID: 10003654  
Coord Name: Not reported  
Ref Point Type Desc: Unknown  
Latitude: 37.594887  
Longitude: -122.012688

Affiliation:

Affiliation Type Desc: Document Preparer  
Entity Name: John Spinis  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Parent Corporation  
Entity Name: Hartung Glass  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address  
Entity Name: Mailing Address  
Entity Title: Not reported  
Affiliation Address: 700 Bradford Way  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: Not reported

Affiliation Type Desc: Identification Signer  
Entity Name: John Spinis  
Entity Title: General Manager  
Affiliation Address: Not reported  
Affiliation City: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HARTUNG GLASS (Continued)**

**S121740957**

Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner  
Entity Name: Hartung Glass  
Entity Title: Not reported  
Affiliation Address: 700 Bradford Way  
Affiliation City: Union city  
Affiliation State: CA  
Affiliation Country: United States  
Affiliation Zip: 94587  
Affiliation Phone: (510) 471-9700

Affiliation Type Desc: Operator  
Entity Name: Hartung Glass Ind  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: (510) 471-9700

Affiliation Type Desc: Property Owner  
Entity Name: Nick Sciola  
Entity Title: Not reported  
Affiliation Address: 17830 W. Valley Hwy  
Affiliation City: Seattle  
Affiliation State: WA  
Affiliation Country: United States  
Affiliation Zip: 98188  
Affiliation Phone: (425) 656-2626

Affiliation Type Desc: CUPA District  
Entity Name: Union City Environmental Programs  
Entity Title: Not reported  
Affiliation Address: 34009 Alvarado-Niles Road  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: (510) 675-5360

Affiliation Type Desc: Environmental Contact  
Entity Name: John Spinat  
Entity Title: Not reported  
Affiliation Address: 700 Bradford Way  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HARTUNG GLASS (Continued)**

**S121740957**

**CERS TANKS:**

Site ID: 121777  
CERS ID: 10003654  
Site Name: HARTUNG GLASS  
CERS Description: Chemical Storage Facilities

**Violations:**

Site ID: 121777  
Site Name: Hartung Glass  
Violation Date: 02-11-2016  
Citation: 22 CCR 15 66265.16 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.16

Violation Description: Failure to provide employees within the first six months after the date of their employment, or assignment to the facility, or to work unsupervised, or to a new position at a facility with hazardous waste training to ensure employees are competent in the following areas: hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed, emergency response and emergency equipment, and procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment. In addition, the owner/operator shall ensure facility personnel take part in an annual review of the initial training and training records training records on current personnel shall be kept until closure of the facility. Training records on former employees shall be kept for at least three years from the date the employee last worked at the facility. The records shall include the following: the job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job; a written job description for each position, duties of facility personnel assigned to each position, and a written description of the type and amount of both introductory and continuing training that will be given to each person filling a position.

Violation Notes: Returned to compliance on 02/11/2016. OBSERVATION: The Owner/Operator failed to properly train personnel who handle hazardous waste. All employees shall be trained within six months of assignment and take part in an annual review of the initial training received. CORRECTIVE ACTION: Immediately provide employees with initial or refresher hazardous waste training as required. Submit a copy of the roster and the syllabus to the CUPA by within 30 days.

Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Site ID: 121777  
Site Name: Hartung Glass  
Violation Date: 02-14-2019  
Citation: HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple

Violation Description: Hazardous Waste Generator Program - Administration/Documentation - General

Violation Notes: Not reported  
Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Site ID: 121777  
Site Name: Hartung Glass

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HARTUNG GLASS (Continued)**

**S121740957**

Violation Date: 02-11-2016  
Citation: HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)  
Violation Description: Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.  
Violation Notes: Returned to compliance on 08/18/2017. OBSERVATION: Annual training documentation for all applicable employees was not available. According to Erick Maakestad annual employee training is not currently being conducted. CORRECTIVE ACTION: Submit documentation to the CUPA demonstrating that employees have received training on safe handling of hazardous materials and the Emergency Response Plan within 30 days.  
Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 121777  
Site Name: Hartung Glass  
Violation Date: 02-11-2016  
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)  
Violation Description: Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.  
Violation Notes: Returned to compliance on 03/03/2016. OBSERVATION: The facility has not submitted the Hazardous Materials Inventory Chemical Description page for oil (4 55-gallons), used oil, and coolant to the CUPA. In addition, the following hazardous material inventory should be revised: oxygen, acetylene, propane, and nitrogen. CORRECTIVE ACTION: Complete and submit the Hazardous Materials Inventory Chemical Description page for all materials listed above electronically in the California Environmental Reporting System (CERS) within 30 days.  
Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 121777  
Site Name: Hartung Glass  
Violation Date: 02-14-2019  
Citation: HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)  
Violation Description: Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.  
Violation Notes: Not reported  
Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 121777  
Site Name: Hartung Glass  
Violation Date: 02-14-2019  
Citation: 40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(iii)  
Violation Description: Failure to ensure that all employees are thoroughly familiar with



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HARTUNG GLASS (Continued)**

**S121740957**

proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies.

Violation Notes: Not reported  
Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Site ID: 121777  
Site Name: Hartung Glass  
Violation Date: 02-11-2016  
Citation: 19 CCR 6.95 25508(a)(1) - California Code of Regulations, Title 19, Chapter 6.95, Section(s) 25508(a)(1)

Violation Description: Failure to complete and electronically submit the Business Activities Page and/or Business Owner Operator Identification Page.

Violation Notes: Returned to compliance on 03/03/2016. OBSERVATION: The Owner/Operator information has incorrect and out of date information including Primary and Secondary Emergency contacts and Environmental contact. In addition, on the Business Activities Page, the answer to the question about remote waste consolidation should be No. CORRECTIVE ACTION: Complete the Owner/Operator page and submit electronically in the California Environmental Reporting System (CERS) within 30 days.

Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 121777  
Site Name: Hartung Glass  
Violation Date: 02-14-2019  
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)

Violation Description: Failure to complete and electronically submit a site map with all required content.

Violation Notes: Not reported  
Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 121777  
Site Name: Hartung Glass  
Violation Date: 02-14-2019  
Citation: HSC 6.95 25505(c) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(c)

Violation Description: Failure to have a business plan readily available to personnel of the business or the unified program facility with responsibilities for emergency response or training.

Violation Notes: Current staff have not been trained regularly according to new site manager and Jeff Edvalds.

Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 121777  
Site Name: Hartung Glass  
Violation Date: 02-14-2019  
Citation: HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple

Violation Description: Hazardous Waste Generator Program - Training - General

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HARTUNG GLASS (Continued)**

**S121740957**

Violation Notes: Not reported  
Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Site ID: 121777  
Site Name: Hartung Glass  
Violation Date: 02-14-2019  
Citation: 22 CCR 23 66273.34 - California Code of Regulations, Title 22, Chapter 23, Section(s) 66273.34  
Violation Description: Failure to label or mark each individual or container or the designated area of universal waste as required. 1) Waste batteries shall be marked with "Universal Waste-Battery(ies)?: 2) Mercury containing equipment shall be marked with "Universal Waste -Mercury-Containing Equipment?: 3) Lamps shall be marked with ?Universal Waste-Lamp(s)?: 4)Each electronic devices or the container or the designated area shall be marked with ?Universal Waste-Electronic Device(s)?: 5) Each CRTs or the container or the designated area shall be marked with "Universal Waste-CRT(s)?: 6) CRT glass or the designated area shall be marked with ?Universal Waste-CRT glass?.

Violation Notes: Not reported  
Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Site ID: 121777  
Site Name: Hartung Glass  
Violation Date: 02-11-2016  
Citation: 22 CCR 15 66265.174 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.174  
Violation Description: Failure to inspect hazardous waste storage areas at least weekly.  
Violation Notes: Returned to compliance on 03/03/2016. OBSERVATION: The used oil drums are not being inspected on a regular basis. The owner or operator shall inspect areas used for container storage or transfer, at least weekly, looking for leaking containers and for deterioration of containers and the containment system caused by corrosion and other factors. CORRECTIVE ACTION: Immediately begin conducting the necessary weekly inspections for all hazardous waste containers at this facility a nd provide documentation to the CUPA within 30 days.

Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Site ID: 121777  
Site Name: Hartung Glass  
Violation Date: 02-11-2016  
Citation: 22 CCR 16 66266.130 - California Code of Regulations, Title 22, Chapter 16, Section(s) 66266.130  
Violation Description: Failure to properly handle, manage, label, and recycle used oil and fuel filters.  
Violation Notes: Returned to compliance on 03/03/2016. OBSERVATION: Generator failed to properly handle, manage, label, and/or recycle used oil. The used oil drum did not have a hazardous waste label and was not closed. In addition, two drums of used oil were sent to the Union Facility from Hartung's Sacramento facility. These drums of used oil should be properly disposed using the EPA ID number at the facility in which it

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HARTUNG GLASS (Continued)**

**S121740957**

was generated. CORRECTIVE ACTION: Owner/Operator shall immediately comply with the Title 22 regulations with regards to the proper handling, management, labeling and recycling of used oil. Verify compliance with the CUPA within 30 days.

Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Site ID: 121777  
Site Name: Hartung Glass  
Violation Date: 02-14-2019  
Citation: HSC 6.5 25250.22 - California Health and Safety Code, Chapter 6.5, Section(s) 25250.22  
Violation Description: Failure to properly manage used oil and/or fuel filters in accordance with the requirements.  
Violation Notes: Used oil is from the Sacramento location. This facility does not meet criteria for remote consolidation facility. Remove oil within 30 days.

Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Site ID: 121777  
Site Name: Hartung Glass  
Violation Date: 02-14-2019  
Citation: HSC 6.95 25508.2 - California Health and Safety Code, Chapter 6.95, Section(s) 25508.2  
Violation Description: Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.  
Violation Notes: Inconsistent electronic submittals on 6/22/2018, 3/3/2016, 1/23/2014, etc. Advised personnel that HMBP is an annual recertification and submittal of all 3 elements.

Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 121777  
Site Name: Hartung Glass  
Violation Date: 02-14-2019  
Citation: 22 CCR 12 66262.12 - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.12  
Violation Description: Failure to obtain an Identification Number prior to treating, storing, disposing of, transporting or offering for transportation any hazardous waste.  
Violation Notes: Not reported  
Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Site ID: 121777  
Site Name: Hartung Glass  
Violation Date: 02-14-2019  
Citation: HSC 6.95 25508.1(a)-(f) - California Health and Safety Code, Chapter 6.95, Section(s) 25508.1(a)-(f)  
Violation Description: Failure to electronically update business plan within 30 days of any one of the following events: A 100 percent or more increase in the quantity of a previously disclosed material. Any handling of a

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HARTUNG GLASS (Continued)**

**S121740957**

previously undisclosed hazardous materials at or above reportable quantities. A change of business address, business ownership, or business name. A substantial change in the handler's operations that requires modification to any portion of the business plan.

Violation Notes: Not reported  
Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 121777  
Site Name: Hartung Glass  
Violation Date: 02-14-2019  
Citation: 22 CCR 23 66273.36 - California Code of Regulations, Title 22, Chapter 23, Section(s) 66273.36

Violation Description: Failure of universal waste handler to provide initial and/or annual refresher training for employees who manage or handle universal waste and to maintain a written record for three years of personnel who took the initial or annual training.

Violation Notes: Not reported  
Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Site ID: 121777  
Site Name: Hartung Glass  
Violation Date: 02-11-2016  
Citation: 22 CCR 12 66262.12 - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.12

Violation Description: Failure to obtain and/or maintain an Active EPA ID.  
Violation Notes: Returned to compliance on 03/21/2016. OBSERVATION: This facility's EPA ID number is inactive. A hazardous waste generator shall not treat, store, dispose of, transport or offer for transportation, hazardous waste without an EPA ID number. EPA ID CAL000389421 was inactivated by DTSC on 06-30-2015. CORRECTIVE ACTION: Immediately contact DTSC and reactivate your EPA ID number and submit evidence to the CUPA within 30 days.

Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Site ID: 121777  
Site Name: Hartung Glass  
Violation Date: 02-14-2019  
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)

Violation Description: Failure to establish and electronically submit an adequate training program in safety procedures in the event of a release or threatened release of a hazardous material.

Violation Notes: Facility cannot provide training documentation for new hires or annual training for existing employees. No specific training on Sulfur Dioxide gas.

Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Evaluation:  
Eval General Type: Compliance Evaluation Inspection

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HARTUNG GLASS (Continued)**

**S121740957**

Eval Date: 02-14-2019  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Sent by email; electronic signature not captured.  
Eval Division: Union City Environmental Programs  
Eval Program: HMRRP  
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 02-11-2016  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Routine inspection of the facility. Met with Eric Maakestad,  
Production Manager.  
Eval Division: Union City Environmental Programs  
Eval Program: HW  
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 02-11-2016  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Routine inspection of the facility. Met with Erick Maakestad,  
Production Manager  
Eval Division: Union City Environmental Programs  
Eval Program: HMRRP  
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 02-14-2019  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Not reported  
Eval Division: Union City Environmental Programs  
Eval Program: HW  
Eval Source: CERS

Enforcement Action:  
Site ID: 121777  
Site Name: Hartung Glass  
Site Address: 700 BRADFORD ST  
Site City: UNION CITY  
Site Zip: 94587  
Enf Action Date: 02-11-2016  
Enf Action Type: Notice of Violation (Unified Program)  
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection  
Enf Action Notes: Not reported  
Enf Action Division: Union City Environmental Programs  
Enf Action Program: HMRRP  
Enf Action Source: CERS

Site ID: 121777  
Site Name: Hartung Glass  
Site Address: 700 BRADFORD ST  
Site City: UNION CITY  
Site Zip: 94587  
Enf Action Date: 02-11-2016

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HARTUNG GLASS (Continued)**

**S121740957**

Enf Action Type: Notice of Violation (Unified Program)  
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection  
Enf Action Notes: Not reported  
Enf Action Division: Union City Environmental Programs  
Enf Action Program: HW  
Enf Action Source: CERS

Coordinates:

Site ID: 121777  
Facility Name: Hartung Glass  
Env Int Type Code: HWG  
Program ID: 10003654  
Coord Name: Not reported  
Ref Point Type Desc: Unknown  
Latitude: 37.594887  
Longitude: -122.012688

Affiliation:

Affiliation Type Desc: Document Preparer  
Entity Name: John Spinas  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Parent Corporation  
Entity Name: Hartung Glass  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address  
Entity Name: Mailing Address  
Entity Title: Not reported  
Affiliation Address: 700 Bradford Way  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: Not reported

Affiliation Type Desc: Identification Signer  
Entity Name: John Spinas  
Entity Title: General Manager  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HARTUNG GLASS (Continued)**

**S121740957**

Affiliation Phone:	Not reported
Affiliation Type Desc:	Legal Owner
Entity Name:	Hartung Glass
Entity Title:	Not reported
Affiliation Address:	700 Bradford Way
Affiliation City:	Union city
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94587
Affiliation Phone:	(510) 471-9700
Affiliation Type Desc:	Operator
Entity Name:	Hartung Glass Ind
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(510) 471-9700
Affiliation Type Desc:	Property Owner
Entity Name:	Nick Sciola
Entity Title:	Not reported
Affiliation Address:	17830 W. Valley Hwy
Affiliation City:	Seattle
Affiliation State:	WA
Affiliation Country:	United States
Affiliation Zip:	98188
Affiliation Phone:	(425) 656-2626
Affiliation Type Desc:	CUPA District
Entity Name:	Union City Environmental Programs
Entity Title:	Not reported
Affiliation Address:	34009 Alvarado-Niles Road
Affiliation City:	Union City
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94587
Affiliation Phone:	(510) 675-5360
Affiliation Type Desc:	Environmental Contact
Entity Name:	John Spinaz
Entity Title:	Not reported
Affiliation Address:	700 Bradford Way
Affiliation City:	Union City
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94587
Affiliation Phone:	Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**B47**  
**ESE**  
**< 1/8**  
**0.008 mi.**  
**41 ft.**

**HARTUNG GLASS**  
**700 BRADFORD ST**  
**UNION CITY, CA 94587**  
**Site 8 of 8 in cluster B**

**RCRA-SQG 1000346417**  
**FINDS CAD076525468**  
**ECHO**

**Relative:**  
**Lower**

RCRA-SQG:

**Actual:**  
**59 ft.**

Date form received by agency: 09/01/1996  
Facility name: TEMPERED GLASS INTERNATIONAL  
Facility address: 700 BRADFORD WAY  
UNION CITY, CA 94587  
EPA ID: CAD076525468  
Mailing address: 1701 E BROADWAY  
TOLEDO, OH 43605  
Contact: Not reported  
Contact address: Not reported  
Not reported  
Contact country: US  
Contact telephone: Not reported  
Contact email: Not reported  
EPA Region: 09  
Classification: Small Small Quantity Generator  
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name: TUF-FLEX GLASS INC  
Owner/operator address: NOT REQUIRED  
NOT REQUIRED, ME 99999  
Owner/operator country: Not reported  
Owner/operator telephone: 415-555-1212  
Owner/operator email: Not reported  
Owner/operator fax: Not reported  
Owner/operator extension: Not reported  
Legal status: Private  
Owner/Operator Type: Owner  
Owner/Op start date: Not reported  
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED  
Owner/operator address: NOT REQUIRED  
NOT REQUIRED, ME 99999  
Owner/operator country: Not reported  
Owner/operator telephone: 415-555-1212  
Owner/operator email: Not reported  
Owner/operator fax: Not reported  
Owner/operator extension: Not reported  
Legal status: Private  
Owner/Operator Type: Operator  
Owner/Op start date: Not reported  
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): No



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HARTUNG GLASS (Continued)**

**1000346417**

Recycler of hazardous waste: No  
Transporter of hazardous waste: No  
Treater, storer or disposer of HW: No  
Underground injection activity: No  
On-site burner exemption: No  
Furnace exemption: No  
Used oil fuel burner: No  
Used oil processor: No  
User oil refiner: No  
Used oil fuel marketer to burner: No  
Used oil Specification marketer: No  
Used oil transfer facility: No  
Used oil transporter: No

Historical Generators:

Date form received by agency: 08/14/1980  
Site name: TEMPERED GLASS INTERNATIONAL  
Classification: Large Quantity Generator

Violation Status: No violations found

FINDS:

Registry ID: 110002658552

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Registry ID: 110057088495

Environmental Interest/Information System  
STATE MASTER

Registry ID: 110070343452

Environmental Interest/Information System  
OSHA ESTABLISHMENT

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1000346417  
Registry ID: 110002658552  
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110002658552>

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

D48  
NE  
< 1/8  
0.027 mi.  
143 ft.

**FUTURE RESIDENTIAL**  
**621 DAGGETT AVE**  
**UNION CITY, CA 94587**  
**Site 4 of 4 in cluster D**

**CPS-SLIC**  
**Alameda County CS**  
**CERS**

**S101642031**  
**N/A**

**Relative:**  
**Lower**  
**Actual:**  
**65 ft.**

**CPS-SLIC:**  
Site Name: CLIPPER EXPRESS  
Region: STATE  
**Facility Status: Completed - Case Closed**  
Status Date: 10/11/1995  
Global Id: SL0600135934  
Lead Agency: ALAMEDA COUNTY WATER DISTRICT  
Lead Agency Case Number: 0459  
Latitude: 37.5971831  
Longitude: -122.0139431  
Case Type: Cleanup Program Site  
Case Worker: SDI  
Local Agency: ALAMEDA COUNTY WATER DISTRICT  
RB Case Number: 2199.09  
File Location: Not reported  
Potential Media Affected: Not reported  
Potential Contaminants of Concern: Not reported  
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

**SLIC REG 2:**

Region: 2  
Facility ID: Not reported  
Facility Status: Case Closed  
Date Closed: Not reported  
Local Case #: Not reported  
How Discovered: Not reported  
Leak Cause: Not reported  
Leak Source: Not reported  
Date Confirmed: Not reported  
Date Prelim Site Assmnt Workplan Submitted: Not reported  
Date Preliminary Site Assessment Began: Not reported  
Date Pollution Characterization Began: Not reported  
Date Remediation Plan Submitted: Not reported  
Date Remedial Action Underway: Not reported  
Date Post Remedial Action Monitoring Began: Not reported

**Alameda County CS:**

Status: 11  
Record Id: RO0002775  
PE: 5502  
Facility Status: Not reported  
Latitude: 37.597874691  
Longitude: -122.01304804

**CERS TANKS:**

Site ID: 211732  
CERS ID: SL0600135934  
Site Name: CLIPPER EXPRESS  
CERS Description: Cleanup Program Site

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FUTURE RESIDENTIAL (Continued)**

**S101642031**

Affiliation:

Affiliation Type Desc: Local Agency Caseworker  
Entity Name: MICHELLE A. MYERS - ALAMEDA COUNTY WATER DISTRICT  
Entity Title: Not reported  
Affiliation Address: 43885 SOUTH GRIMMER BOULEVARD  
Affiliation City: FREMONT  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Regional Board Caseworker  
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)  
Entity Title: Not reported  
Affiliation Address: 1515 CLAY ST SUITE 1400  
Affiliation City: OAKLAND  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

**F49** **J.E. HIGGINS LUMBER COMPANY**  
**ENE** **600 DAGGETT AVE**  
**< 1/8** **UNION CITY, CA 94587**  
**0.031 mi.**  
**166 ft.** **Site 1 of 2 in cluster F**

**HIST UST** **U001598723**  
**N/A**

**Relative:**  
**Lower**  
**Actual:**  
**65 ft.**

HIST UST:  
File Number: Not reported  
URL: Not reported  
Region: STATE  
Facility ID: 00000010297  
Facility Type: Other  
Other Type: WHLSLE LUMBER DISTRI  
Contact Name: KENNETH R. ENOS  
Telephone: 4154714900  
Owner Name: H-INVESTMENT CORP.  
Owner Address: 1399 YGNACIO VALLEY RD.  
Owner City,St,Zip: WALNUT CREEK, CA 94598  
Total Tanks: 0003

Tank Num: 001  
Container Num: #1  
Year Installed: 1968  
Tank Capacity: 00008000  
Tank Used for: PRODUCT  
Type of Fuel: REGULAR  
Container Construction Thickness: 10  
Leak Detection: None, 10

Tank Num: 002  
Container Num: ONE  
Year Installed: Not reported  
Tank Capacity: 00001000  
Tank Used for: PRODUCT  
Type of Fuel: REGULAR

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**J.E. HIGGINS LUMBER COMPANY (Continued)**

**U001598723**

Container Construction Thickness: Not reported  
Leak Detection: Stock Inventor

Tank Num: 003  
Container Num: #2  
Year Installed: 1971  
Tank Capacity: 00007500  
Tank Used for: PRODUCT  
Type of Fuel: DIESEL  
Container Construction Thickness: 10  
Leak Detection: None, 10

**F50  
ENE  
< 1/8  
0.031 mi.  
166 ft.**

**HIGGINS LUMBER  
600 DAGGETT AVENUE  
UNION CITY, CA 94587**

**LUST S101306806  
HIST CORTESE N/A  
CERS**

**Site 2 of 2 in cluster F**

**Relative:  
Lower**

**LUST:**

**Actual:  
65 ft.**

Lead Agency: ALAMEDA COUNTY WATER DISTRICT  
Case Type: LUST Cleanup Site  
Geo Track: [http://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=T0600100705](http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600100705)  
Global Id: T0600100705  
Latitude: 37.5972029  
Longitude: -122.0138619  
Status: Completed - Case Closed  
Status Date: 01/08/2009  
Case Worker: SZ  
RB Case Number: 01-0765  
Local Agency: ALAMEDA COUNTY WATER DISTRICT  
File Location: Local Agency  
Local Case Number: 0141  
Potential Media Affect: Other Groundwater (uses other than drinking water)  
Potential Contaminants of Concern: Diesel  
Site History: Not reported

**LUST:**

Global Id: T0600100705  
Contact Type: Regional Board Caseworker  
Contact Name: Regional Water Board  
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)  
Address: 1515 CLAY ST SUITE 1400  
City: OAKLAND  
Email: Not reported  
Phone Number: Not reported

Global Id: T0600100705  
Contact Type: Local Agency Caseworker  
Contact Name: SELIM ZEYREK  
Organization Name: ALAMEDA COUNTY WATER DISTRICT  
Address: 43885 SOUTH GRIMMER BLVD  
City: FREMONT  
Email: [selim.zeyrek@acwd.com](mailto:selim.zeyrek@acwd.com)  
Phone Number: Not reported

**LUST:**

Global Id: T0600100705  
Action Type: Other

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HIGGINS LUMBER (Continued)**

**S101306806**

Date: 10/28/1985  
Action: Leak Reported

Global Id: T0600100705  
Action Type: ENFORCEMENT  
Date: 01/08/2009  
Action: Closure/No Further Action Letter - #01-0765

Global Id: T0600100705  
Action Type: REMEDIATION  
Date: 07/12/1985  
Action: Excavation

Global Id: T0600100705  
Action Type: Other  
Date: 10/28/1985  
Action: Leak Discovery

Global Id: T0600100705  
Action Type: Other  
Date: 07/12/1985  
Action: Leak Stopped

**LUST:**

Global Id: T0600100705  
Status: Completed - Case Closed  
Status Date: 01/08/2009

Global Id: T0600100705  
Status: Open - Case Begin Date  
Status Date: 07/12/1985

Global Id: T0600100705  
Status: Open - Site Assessment  
Status Date: 10/28/1985

**LUST REG 2:**

Region: 2  
Facility Id: 01-0765  
Facility Status: Leak being confirmed  
Case Number: 0141  
How Discovered: Tank Closure  
Leak Cause: Structure Failure  
Leak Source: Tank  
Date Leak Confirmed: 10/28/1985  
Oversight Program: LUST  
Prelim. Site Assessment Workplan Submitted: Not reported  
Preliminary Site Assessment Began: Not reported  
Pollution Characterization Began: Not reported  
Pollution Remediation Plan Submitted: Not reported  
Date Remediation Action Underway: Not reported  
Date Post Remedial Action Monitoring Began: Not reported

**HIST CORTESE:**

Region: CORTESE

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HIGGINS LUMBER (Continued)**

**S101306806**

Facility County Code: 1  
Reg By: LTNKA  
Reg Id: 01-0765

**CERS TANKS:**

Site ID: 204729  
CERS ID: T0600100705  
Site Name: HIGGINS LUMBER  
CERS Description: Leaking Underground Storage Tank Cleanup Site

**Affiliation:**

Affiliation Type Desc: Local Agency Caseworker  
Entity Name: SELIM ZEYREK - ALAMEDA COUNTY WATER DISTRICT  
Entity Title: Not reported  
Affiliation Address: 43885 SOUTH GRIMMER BLVD  
Affiliation City: FREMONT  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Regional Board Caseworker  
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)  
Entity Title: Not reported  
Affiliation Address: 1515 CLAY ST SUITE 1400  
Affiliation City: OAKLAND  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

**G51**  
**West**  
**< 1/8**  
**0.039 mi.**  
**208 ft.**

**WILLIAMS BROS CONSTRUCTION CO**  
**DEPOT ROAD AND DECOTO ROAD**  
**UNION CITY, CA 94587**

**HIST UST** **S118417120**  
**N/A**

**Site 1 of 2 in cluster G**

**Relative:**  
**Higher**  
**Actual:**  
**68 ft.**

HIST UST:  
File Number: 00021CA9  
URL: <http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00021CA9.pdf>  
Region: Not reported  
Facility ID: Not reported  
Facility Type: Not reported  
Other Type: Not reported  
Contact Name: Not reported  
Telephone: Not reported  
Owner Name: Not reported  
Owner Address: Not reported  
Owner City,St,Zip: Not reported  
Total Tanks: Not reported  
  
Tank Num: Not reported  
Container Num: Not reported  
Year Installed: Not reported  
Tank Capacity: Not reported  
Tank Used for: Not reported  
Type of Fuel: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**WILLIAMS BROS CONSTRUCTION CO (Continued)**

**S118417120**

Container Construction Thickness: Not reported  
Leak Detection: Not reported

[Click here for Geo Tracker PDF:](#)

**G52**  
**West**  
**< 1/8**  
**0.039 mi.**  
**208 ft.**

**WILLIAMS BROS. CONSTRUCTION CO**  
**DEPOT ROAD & DECOTO ROAD,**  
**UNION CITY, CA 94587**

**HIST UST** **U001598753**  
**N/A**

**Site 2 of 2 in cluster G**

**Relative:**  
**Higher**  
**Actual:**  
**68 ft.**

HIST UST:  
File Number: Not reported  
URL: Not reported  
Region: STATE  
Facility ID: 00000009594  
Facility Type: Other  
Other Type: CONSTRUCTION  
Contact Name: I. A. WILLIAMS  
Telephone: 4154713103  
Owner Name: WILLIAMS BROS. CONSTRUCTION CO  
Owner Address: P.O. BOX 525,  
UNION CITY, CA 94587  
Total Tanks: 0001  
  
Tank Num: 001  
Container Num: 1  
Year Installed: 1973  
Tank Capacity: 00000550  
Tank Used for: PRODUCT  
Type of Fuel: REGULAR  
Container Construction Thickness: Not reported  
Leak Detection: None

**H53**  
**SSW**  
**< 1/8**  
**0.078 mi.**  
**410 ft.**

**DECOTO PIPE WRAPPING PLANT**  
**1100 DECOTO ROAD**  
**UNION CITY, CA 94587**

**SWEEPS UST** **U001598715**  
**HIST UST** **N/A**

**Site 1 of 3 in cluster H**

**Relative:**  
**Lower**  
**Actual:**  
**59 ft.**

SWEEPS UST:  
Status: Not reported  
Comp Number: 24802  
Number: Not reported  
Board Of Equalization: 44-001409  
Referral Date: Not reported  
Action Date: Not reported  
Created Date: Not reported  
Owner Tank Id: Not reported  
SWRCB Tank Id: 01-011-024802-000001  
Tank Status: Not reported  
Capacity: 1000  
Active Date: Not reported  
Tank Use: M.V. FUEL  
STG: PRODUCT  
Content: REG UNLEADED

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**DECOTO PIPE WRAPPING PLANT (Continued)**

**U001598715**

Number Of Tanks: 1

**HIST UST:**

File Number: 00036212  
URL: <http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00036212.pdf>  
Region: STATE  
Facility ID: 00000024802  
Facility Type: Other  
Other Type: PIPE WRAPPING PLANT  
Contact Name: R.H. SMITH  
Telephone: 4154710525  
Owner Name: PACIFIC GAS AND ELECTRIC COMPA  
Owner Address: 77 BEALE STREET  
Owner City,St,Zip: SAN FRANCISCO, CA 94106  
Total Tanks: 0001

Tank Num: 001  
Container Num: 01  
Year Installed: Not reported  
Tank Capacity: 00001000  
Tank Used for: PRODUCT  
Type of Fuel: UNLEADED  
Container Construction Thickness: Not reported  
Leak Detection: Stock Inventor

[Click here for Geo Tracker PDF:](#)

**H54**  
**SSW**  
**< 1/8**  
**0.078 mi.**  
**410 ft.**

**DECOTO PIPE WRAPPING**  
**1100 DECOTO ROAD**  
**UNION CITY, CA 92592**

**CPS-SLIC** **U000056835**  
**DEED** **N/A**  
**Notify 65**  
**CERS**

**Site 2 of 3 in cluster H**

**Relative:**  
**Lower**  
**Actual:**  
**59 ft.**

**SLIC REG 2:**  
Region: 2  
Facility ID: Not reported  
Facility Status: Case Closed  
Date Closed: Not reported  
Local Case #: Not reported  
How Discovered: Not reported  
Leak Cause: Not reported  
Leak Source: Not reported  
Date Confirmed: Not reported  
Date Prelim Site Assmnt Workplan Submitted: Not reported  
Date Preliminary Site Assessment Began: Not reported  
Date Pollution Characterization Began: Not reported  
Date Remediation Plan Submitted: Not reported  
Date Remedial Action Underway: Not reported  
Date Post Remedial Action Monitoring Began: Not reported

**DEED:**

Envirostor ID: T1000000701  
Area: Not reported  
Sub Area: Not reported  
Site Type: SLIC  
Status: COMPLETED - CASE CLOSED  
Agency: SWRCB



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**DECOTO PIPE WRAPPING (Continued)**

**U000056835**

Covenant Uploaded: Y  
Deed Date(s): 10/02/2013  
File Name: Geotracker Land Use/Deed Restrictions

**NOTIFY 65:**

Date Reported: Not reported  
Staff Initials: Not reported  
Board File Number: Not reported  
Facility Type: Not reported  
Discharge Date: Not reported  
Issue Date: Not reported  
Incident Description: Not reported

**CERS TANKS:**

Site ID: 223605  
CERS ID: T1000000701  
Site Name: PG&E DECOTO PIPE YARD FACILITY CLOSURE  
CERS Description: Cleanup Program Site

**Affiliation:**

Affiliation Type Desc: Local Agency Caseworker  
Entity Name: DTSC - DEPARTMENT OF TOXIC SUBSTANCES CONTROL  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

**H55 P G AND E**  
**SSW 1100 DECOTO RD**  
**< 1/8 UNION CITY, CA 94587**  
**0.078 mi. Site 3 of 3 in cluster H**  
**410 ft.**  
**Relative:**  
**Lower**  
**Actual:**  
**59 ft.**

**RCRA-SQG 1000598327**  
**ENVIROSTOR CAT080011497**  
**LUST**  
**CPS-SLIC**  
**VCP**  
**FINDS**  
**ECHO**  
**HIST CORTESE**  
**CERS**

**RCRA-SQG:**

Date form received by agency: 03/04/1999  
Facility name: P G AND E  
Site name: DECOTO PIPE YARD  
Facility address: 1100 DECOTO RD  
UNION CITY, CA 94587  
EPA ID: CAT080011497  
Mailing address: 1919 WEBSTER ST 5TH FLOOR  
OAKLAND, CA 94612  
Contact: LORETTA ALTSHULER  
Contact address: Not reported  
Not reported  
Contact country: US  
Contact telephone: 510-874-2422  
Contact email: Not reported  
EPA Region: 09

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**P G AND E (Continued)**

**1000598327**

Classification: Small Small Quantity Generator  
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Handler Activities Summary:

U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): No  
Recycler of hazardous waste: No  
Transporter of hazardous waste: No  
Treater, storer or disposer of HW: No  
Underground injection activity: No  
On-site burner exemption: No  
Furnace exemption: No  
Used oil fuel burner: No  
Used oil processor: No  
User oil refiner: No  
Used oil fuel marketer to burner: No  
Used oil Specification marketer: No  
Used oil transfer facility: No  
Used oil transporter: No

Historical Generators:

Date form received by agency: 03/13/1996  
Site name: P G AND E  
Classification: Small Quantity Generator

Date form received by agency: 04/15/1990  
Site name: PG&E/DECOTO PIPE WRAPPING PLANT  
Classification: Large Quantity Generator

Violation Status: No violations found

ENVIROSTOR:

Facility ID: 1490019  
Status: Certified  
Status Date: 06/30/2003  
Site Code: 201388  
Site Type: Voluntary Cleanup  
Site Type Detailed: Voluntary Cleanup  
Acres: 30  
NPL: NO  
Regulatory Agencies: SMBRP  
Lead Agency: SMBRP  
Program Manager: Lynn Nakashima  
Supervisor: Barbara Cook  
Division Branch: Cleanup Berkeley  
Assembly: 20  
Senate: 10  
Special Program: Designation of Single Agency  
Restricted Use: NO  
Site Mgmt Req: NONE SPECIFIED  
Funding: Responsible Party  
Latitude: 37.59280  
Longitude: -122.0166

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**P G AND E (Continued)**

**1000598327**

APN: 087-0019-004-2, 87-19-4-2  
Past Use: UTILITY - ELECTRIC  
Potential COC: Arsenic Lead Polychlorinated biphenyls (PCBs TPH-diesel Cadmium and compounds Dieldrin Mercury and compounds Thallium and compounds  
Confirmed COC: Thallium and compounds Polychlorinated biphenyls (PCBs TPH-diesel Cadmium and compounds Dieldrin Mercury and compounds Arsenic Lead  
Potential Description: SOIL  
Alias Name: Not reported  
Alias Type: Not reported  
Completed Info:  
Completed Area Name: Not reported  
Completed Sub Area Name: Not reported  
Completed Document Type: Not reported  
Completed Date: Not reported  
Comments: Not reported  
Future Area Name: Not reported  
Future Sub Area Name: Not reported  
Future Document Type: Not reported  
Future Due Date: Not reported  
Schedule Area Name: Not reported  
Schedule Sub Area Name: Not reported  
Schedule Document Type: Not reported  
Schedule Due Date: Not reported  
Schedule Revised Date: Not reported

**LUST:**

Lead Agency: ALAMEDA COUNTY WATER DISTRICT  
Case Type: LUST Cleanup Site  
Geo Track: [http://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=T0600101076](http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600101076)  
Global Id: T0600101076  
Latitude: 37.59261  
Longitude: -122.018482  
Status: Completed - Case Closed  
Status Date: 04/19/1993  
Case Worker: SDI  
RB Case Number: 01-1167  
Local Agency: ALAMEDA COUNTY WATER DISTRICT  
File Location: Local Agency  
Local Case Number: 0218  
Potential Media Affect: Other Groundwater (uses other than drinking water)  
Potential Contaminants of Concern: Gasoline  
Site History: Not reported

**LUST:**

Global Id: T0600101076  
Contact Type: Regional Board Caseworker  
Contact Name: Regional Water Board  
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)  
Address: 1515 CLAY ST SUITE 1400  
City: OAKLAND  
Email: Not reported  
Phone Number: Not reported  
Global Id: T0600101076  
Contact Type: Local Agency Caseworker  
Contact Name: STEVEN D. INN

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**P G AND E (Continued)**

1000598327

Organization Name: ALAMEDA COUNTY WATER DISTRICT  
Address: 43885 SOUTH GRIMMER BOULEVARD  
City: FREMONT  
Email: steven.inn@acwd.com  
Phone Number: Not reported

LUST:

Global Id: T0600101076  
Action Type: Other  
Date: 10/23/1990  
Action: Leak Reported

Global Id: T0600101076  
Action Type: REMEDIATION  
Date: 08/12/1992  
Action: Excavation

Global Id: T0600101076  
Action Type: Other  
Date: 06/01/1989  
Action: Leak Discovery

Global Id: T0600101076  
Action Type: Other  
Date: 10/23/1990  
Action: Leak Stopped

LUST:

Global Id: T0600101076  
Status: Completed - Case Closed  
Status Date: 04/19/1993

Global Id: T0600101076  
Status: Open - Case Begin Date  
Status Date: 06/01/1984

Global Id: T0600101076  
Status: Open - Site Assessment  
Status Date: 06/01/1984

Global Id: T0600101076  
Status: Open - Site Assessment  
Status Date: 09/01/1985

Global Id: T0600101076  
Status: Open - Site Assessment  
Status Date: 11/26/1990

LUST REG 2:

Region: 2  
Facility Id: 01-1167  
Facility Status: Case Closed  
Case Number: 0218  
How Discovered: Not reported  
Leak Cause: Structure Failure

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**P G AND E (Continued)**

1000598327

Leak Source: Piping  
Date Leak Confirmed: 11/26/1990  
Oversight Program: LUST  
Prelim. Site Assessment Workplan Submitted: Not reported  
Preliminary Site Assessment Began: 6/1/1984  
Pollution Characterization Began: 9/1/1985  
Pollution Remediation Plan Submitted: Not reported  
Date Remediation Action Underway: Not reported  
Date Post Remedial Action Monitoring Began: Not reported

**CPS-SLIC:**

Site Name: PG&E PIPEYARD  
Region: STATE  
**Facility Status: Open - Inactive**  
Status Date: 07/15/2016  
Global Id: T10000009147  
Lead Agency: SAN FRANCISCO BAY RWQCB (REGION 2)  
Lead Agency Case Number: Not reported  
Latitude: 37.59261  
Longitude: -122.01848  
Case Type: Cleanup Program Site  
Case Worker: Not reported  
Local Agency: Not reported  
RB Case Number: 01S0035  
File Location: All Files are on GeoTracker or in the Local Agency Database  
Potential Media Affected: Soil  
Potential Contaminants of Concern: Polychlorinated biphenyls (PCBs)  
Site History: PG&E's Decoto Pipe Wrapping Plant was the site of a polychlorinated biphenyl (PCB) Storage and Transfer Facility which operated until September 30, 1984 under a California Department of Health Services(DHS) Hazardous Waste Facility Permit (EPA ID NO. CAT 080011497). As of that date, PG&E ceased receiving or handling PCB wastes on this site and began closure of the site according to a closure plan submitted to DHS on March 30, 1984.

Click here to access the California GeoTracker records for this facility:

Site Name: PG&E DECOTO PIPE YARD FACILITY CLOSURE  
Region: STATE  
**Facility Status: Completed - Case Closed**  
Status Date: 09/09/2003  
Global Id: T10000000701  
Lead Agency: DEPARTMENT OF TOXIC SUBSTANCES CONTROL  
Lead Agency Case Number: 01490019  
Latitude: 37.594493  
Longitude: -122.018496  
Case Type: Cleanup Program Site  
Case Worker: Not reported  
Local Agency: DEPARTMENT OF TOXIC SUBSTANCES CONTROL  
RB Case Number: Not reported  
File Location: Not reported  
Potential Media Affected: Not reported  
Potential Contaminants of Concern: Not reported  
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**P G AND E (Continued)**

**1000598327**

VCP:

Facility ID: 1490019  
Site Type: Voluntary Cleanup  
Site Type Detail: Voluntary Cleanup  
Site Mgmt. Req.: NONE SPECIFIED  
Acres: 30  
National Priorities List: NO  
Cleanup Oversight Agencies: SMBRP  
Lead Agency: SMBRP  
Lead Agency Description: DTSC - Site Cleanup Program  
Project Manager: Lynn Nakashima  
Supervisor: Barbara Cook  
Division Branch: Cleanup Berkeley  
Site Code: 201388  
Assembly: 20  
Senate: 10  
Special Programs Code: Designation of Single Agency  
Status: Certified  
Status Date: 06/30/2003  
Restricted Use: NO  
Funding: Responsible Party  
Lat/Long: 37.59280 / -122.0166  
APN: 087-0019-004-2, 87-19-4-2  
Past Use: UTILITY - ELECTRIC  
Potential COC: 30001, 30013, 30018, 30024, 30108, 30207, 30357, 30542  
Confirmed COC: 30542,30018,30024,30108,30207,30357,30001,30013  
Potential Description: SOIL  
Alias Name: Not reported  
Alias Type: Not reported

Completed Info:

Completed Area Name: Not reported  
Completed Sub Area Name: Not reported  
Completed Document Type: Not reported  
Completed Date: Not reported  
Comments: Not reported

Future Area Name: Not reported  
Future Sub Area Name: Not reported  
Future Document Type: Not reported  
Future Due Date: Not reported  
Schedule Area Name: Not reported  
Schedule Sub Area Name: Not reported  
Schedule Document Type: Not reported  
Schedule Due Date: Not reported  
Schedule Revised Date: Not reported

FINDS:

Registry ID: 110000903103

Environmental Interest/Information System

California Department of Toxic Substances Control EnviroStor System (DTSC-EnviroStor) is an online search and Geographic Information System (GIS) tool for identifying sites that have known contamination or sites for which there may be reasons to investigate further. The EnviroStor database includes the following site types: Federal

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**P G AND E (Continued)**

**1000598327**

Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

**ECHO:**

Envid: 1000598327  
Registry ID: 110000903103  
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110000903103>

**HIST CORTESE:**

Region: CORTESE  
Facility County Code: 1  
Reg By: LTNKA  
Reg Id: 01-1167

**CERS TANKS:**

Site ID: 374952  
CERS ID: T10000009147  
Site Name: PG&E PIPEYARD  
CERS Description: Cleanup Program Site

Site ID: 189015  
CERS ID: T0600101076  
Site Name: PG&E DECOTO PIPE YARD  
CERS Description: Leaking Underground Storage Tank Cleanup Site

**Affiliation:**

Affiliation Type Desc: Local Agency Caseworker  
Entity Name: MICHELLE A. MYERS - ALAMEDA COUNTY WATER DISTRICT  
Entity Title: Not reported  
Affiliation Address: 43885 SOUTH GRIMMER BOULEVARD  
Affiliation City: FREMONT  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Regional Board Caseworker  
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)  
Entity Title: Not reported  
Affiliation Address: 1515 CLAY ST SUITE 1400  
Affiliation City: OAKLAND  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: Not reported

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**P G AND E (Continued)**

**1000598327**

Affiliation Phone: Not reported

**I56  
 SE  
 < 1/8  
 0.081 mi.  
 426 ft.**

**HP COMMUNICATIONS INC.  
 34151 ZWISSIG WAY  
 UNION CITY, CA 94587**

**CERS HAZ WASTE  
 CERS**

**S121765947  
 N/A**

**Site 1 of 5 in cluster I**

**Relative:  
 Lower  
 Actual:  
 56 ft.**

CERS HAZ WASTE:  
 Site ID: 35830  
 CERS ID: 10145909  
 CERS Description: Hazardous Waste Generator

**Violations:**

Site ID: 35830  
 Site Name: HP Communications Inc.  
 Violation Date: 07-24-2018  
 Citation: HSC 6.95 25508.2 - California Health and Safety Code, Chapter 6.95, Section(s) 25508.2

Violation Description: Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.

Violation Notes: OBSERVATION: The business failed to electronically submit and certify that the business plan is complete, accurate, and in compliance with EPCRA on or before the annual due date. CORRECTIVE ACTION: Electronically submit and certify that the business plan is complete, accurate, and in compliance with EPCRA within 30 days. On an ongoing basis, electronically submit and certify the business plan annually on or before the annual due date.

Violation Division: Union City Environmental Programs  
 Violation Program: HMRRP  
 Violation Source: CERS

Site ID: 35830  
 Site Name: HP Communications Inc.  
 Violation Date: 02-03-2017  
 Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)

Violation Description: Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.

Violation Notes: Returned to compliance on 03/08/2017. OBSERVATION: The facility has not submitted the Hazardous Materials Inventory Chemical Description page for DEF and Used Coolant to the CUPA. Additionally, mark Motor Oil's "Type" as "Waste". These changes can be made and resubmitted via CERS. CORRECTIVE ACTION: Complete and submit the Hazardous Materials Inventory Chemical Description page for all materials listed above electronically in the California Environmental Reporting System (CERS) within 30 days.

Violation Division: Union City Environmental Programs  
 Violation Program: HMRRP  
 Violation Source: CERS

Site ID: 35830  
 Site Name: HP Communications Inc.  
 Violation Date: 07-24-2018  
 Citation: 22 CCR 12 66262.23(a)(4) - California Code of Regulations, Title 22,



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

HP COMMUNICATIONS INC. (Continued)

S121765947

Violation Description: Chapter 12, Section(s) 66262.23(a)(4)  
Failure to send a legible copy of each hazardous waste manifest to the Department within 30 days of each shipment of hazardous waste.

Violation Notes: OBSERVATION: The generator has not sent a legible copy of each Uniform Hazardous Waste Manifest to the DTSC within 30 days of shipment.  
CORRECTIVE ACTION: Send a copy of all hazardous waste manifests to the DTSC and submit a statement to the CUPA demonstrating compliance.

Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Site ID: 35830  
Site Name: HP Communications Inc.  
Violation Date: 07-24-2018  
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)

Violation Description: Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.

Violation Notes: OBSERVATION: 55 gallon drum of waste coolant and waste oil tank located in the mechanic shop was observed without a completely filled out hazardous waste label. Also, the waste oil filters are missing an accumulation start date. CORRECTIVE ACTION: Submit a photo to the CUPA demonstrating that the containers listed above has been properly labeled.

Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Site ID: 35830  
Site Name: HP Communications Inc.  
Violation Date: 07-24-2018  
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)

Violation Description: Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.

Violation Notes: OBSERVATION: The business failed to complete and electronically submit chemical inventory information for all reportable hazardous materials on site at or above reportable quantities. CORRECTIVE ACTION: Complete and electronically submit the chemical inventory information for all reportable hazardous materials on site at or above reportable quantities.

Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 35830  
Site Name: HP Communications Inc.  
Violation Date: 07-24-2018  
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)

Violation Description: Failure to complete and electronically submit a site map with all required content.

Violation Notes: OBSERVATION: The business failed to complete and electronically submit

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HP COMMUNICATIONS INC. (Continued)**

**S121765947**

a site map with all required content including: loading area, internal roads, adjacent streets, storm and sewer drains, access and exit points, emergency shut offs, evacuation staging area, hazardous materials/waste storage areas and emergency response equipment.  
CORRECTIVE ACTION: Complete and electronically submit a site map with all required content.

Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 35830  
Site Name: HP Communications Inc.  
Violation Date: 07-24-2018  
Citation: 22 CCR 12 66262.40(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.40(a)

Violation Description: Failure to keep a copy of each properly signed manifest for at least three years from the date the waste was accepted by the initial transporter. The manifest signed at the time the waste was accepted for transport shall be kept until receiving a signed copy from the designated facility which received the waste.

Violation Notes: OBSERVATION: Uniform Hazardous Waste Manifests for all wastes were not available at the time of inspection. CORRECTIVE ACTION: Locate copies of all manifests for all hazardous wastes (used oil, waste oil filters, waste coolant, etc.) and submit copies to the CUPA.

Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Evaluation:  
Eval General Type: Compliance Evaluation Inspection  
Eval Date: 07-24-2018  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Electronic Signature Not Captured  
Eval Division: Union City Environmental Programs  
Eval Program: HW  
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 02-03-2017  
Violations Found: No  
Eval Type: Routine done by local agency  
Eval Notes: Routine inspection of the facility. Met with Simon Morris, Lead Mechanic. Hazardous Wastes generated at the site include used oil and used coolant. Old treated power poles are stored at the facility but picked up and disposed by HP's Client. EPA ID: CAL000409372 Name: HP COMMUNICATIONS Status: ACTIVE Inactive Date: Contact: AARON BARNHART This facility generates less than one 55 gallon drum of hazardous waste a month and is considered a CESQG. Facility has done a good job managing the hazardous waste, keeping the containers closed, and the area free of spills.

Eval Division: Union City Environmental Programs  
Eval Program: HW  
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 02-03-2017

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HP COMMUNICATIONS INC. (Continued)**

**S121765947**

Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Routine inspection of the facility. Met with Simon Morris, Lead Mechanic. CERS was last submitted on 5/2/16. Please note: All elements of CERS need to be re-certified at least every 365 days.

Eval Division: Union City Environmental Programs  
Eval Program: HMRRP  
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 07-24-2018  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Electronic Signature Not Captured  
Eval Division: Union City Environmental Programs  
Eval Program: HMRRP  
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 10-15-2013  
Violations Found: No  
Eval Type: Routine done by local agency  
Eval Notes: Not reported  
Eval Division: Union City Environmental Programs  
Eval Program: HMRRP  
Eval Source: CERS

Enforcement Action:  
Site ID: 35830  
Site Name: HP Communications Inc.  
Site Address: 34151 ZWISSIG WAY  
Site City: UNION CITY  
Site Zip: 94587  
Enf Action Date: 02-03-2017  
Enf Action Type: Notice of Violation (Unified Program)  
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection  
Enf Action Notes: Not reported  
Enf Action Division: Union City Environmental Programs  
Enf Action Program: HMRRP  
Enf Action Source: CERS

Coordinates:  
Site ID: 35830  
Facility Name: HP Communications Inc.  
Env Int Type Code: HWG  
Program ID: 10145909  
Coord Name: Not reported  
Ref Point Type Desc: Center of a facility or station.  
Latitude: 37.593730  
Longitude: -122.012820

Affiliation:  
Affiliation Type Desc: Operator  
Entity Name: Tobias Anderson  
Entity Title: Not reported  
Affiliation Address: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HP COMMUNICATIONS INC. (Continued)**

**S121765947**

Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(951) 453-5915
Affiliation Type Desc:	Document Preparer
Entity Name:	HEATHER beltran
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Environmental Contact
Entity Name:	John Lucas
Entity Title:	Not reported
Affiliation Address:	34151 Zwissig Way
Affiliation City:	Union City
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94587
Affiliation Phone:	Not reported
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	34151 Zwissig Way
Affiliation City:	Union City
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94587
Affiliation Phone:	Not reported
Affiliation Type Desc:	Identification Signer
Entity Name:	HEATHER beltran
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Parent Corporation
Entity Name:	HP COMMUNICATIONS
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	CUPA District

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HP COMMUNICATIONS INC. (Continued)**

**S121765947**

Entity Name: Union City Environmental Programs  
Entity Title: Not reported  
Affiliation Address: 34009 Alvarado-Niles Road  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: (510) 675-5360

Affiliation Type Desc: Legal Owner  
Entity Name: NICHOLAS GOLDMANN  
Entity Title: Not reported  
Affiliation Address: 13341 Temescal Canyon Rd.  
Affiliation City: Corona  
Affiliation State: CA  
Affiliation Country: United States  
Affiliation Zip: 92883  
Affiliation Phone: (951) 572-1200

Affiliation Type Desc: Property Owner  
Entity Name: BOC Enterprises, LLC  
Entity Title: Not reported  
Affiliation Address: 30777 Rancho California Rd #891330  
Affiliation City: Temecula  
Affiliation State: CA  
Affiliation Country: United States  
Affiliation Zip: 92589  
Affiliation Phone: (951) 453-6645

**CERS TANKS:**

Site ID: 35830  
CERS ID: 10145909  
Site Name: HP COMMUNICATIONS INC.  
CERS Description: Chemical Storage Facilities

**Violations:**

Site ID: 35830  
Site Name: HP Communications Inc.  
Violation Date: 07-24-2018  
Citation: HSC 6.95 25508.2 - California Health and Safety Code, Chapter 6.95, Section(s) 25508.2

Violation Description: Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.

Violation Notes: OBSERVATION: The business failed to electronically submit and certify that the business plan is complete, accurate, and in compliance with EPCRA on or before the annual due date. CORRECTIVE ACTION: Electronically submit and certify that the business plan is complete, accurate, and in compliance with EPCRA within 30 days. On an ongoing basis, electronically submit and certify the business plan annually on or before the annual due date.

Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 35830

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HP COMMUNICATIONS INC. (Continued)**

**S121765947**

Site Name: HP Communications Inc.  
Violation Date: 02-03-2017  
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)  
Violation Description: Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.  
Violation Notes: Returned to compliance on 03/08/2017. OBSERVATION: The facility has not submitted the Hazardous Materials Inventory Chemical Description page for DEF and Used Coolant to the CUPA. Additionally, mark Motor Oil's "Type" as "Waste". These changes can be made and resubmitted via CERS. CORRECTIVE ACTION: Complete and submit the Hazardous Materials Inventory Chemical Description page for all materials listed above electronically in the California Environmental Reporting System (CERS) within 30 days.  
Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 35830  
Site Name: HP Communications Inc.  
Violation Date: 07-24-2018  
Citation: 22 CCR 12 66262.23(a)(4) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.23(a)(4)  
Violation Description: Failure to send a legible copy of each hazardous waste manifest to the Department within 30 days of each shipment of hazardous waste.  
Violation Notes: OBSERVATION: The generator has not sent a legible copy of each Uniform Hazardous Waste Manifest to the DTSC within 30 days of shipment. CORRECTIVE ACTION: Send a copy of all hazardous waste manifests to the DTSC and submit a statement to the CUPA demonstrating compliance.  
Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Site ID: 35830  
Site Name: HP Communications Inc.  
Violation Date: 07-24-2018  
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)  
Violation Description: Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.  
Violation Notes: OBSERVATION: 55 gallon drum of waste coolant and waste oil tank located in the mechanic shop was observed without a completely filled out hazardous waste label. Also, the waste oil filters are missing an accumulation start date. CORRECTIVE ACTION: Submit a photo to the CUPA demonstrating that the containers listed above has been properly labeled.  
Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Site ID: 35830  
Site Name: HP Communications Inc.  
Violation Date: 07-24-2018

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HP COMMUNICATIONS INC. (Continued)**

**S121765947**

Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)

Violation Description: Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.

Violation Notes: OBSERVATION: The business failed to complete and electronically submit chemical inventory information for all reportable hazardous materials on site at or above reportable quantities. CORRECTIVE ACTION: Complete and electronically submit the chemical inventory information for all reportable hazardous materials on site at or above reportable quantities.

Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 35830  
Site Name: HP Communications Inc.  
Violation Date: 07-24-2018

Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)

Violation Description: Failure to complete and electronically submit a site map with all required content.

Violation Notes: OBSERVATION: The business failed to complete and electronically submit a site map with all required content including: loading area, internal roads, adjacent streets, storm and sewer drains, access and exit points, emergency shut offs, evacuation staging area, hazardous materials/waste storage areas and emergency response equipment. CORRECTIVE ACTION: Complete and electronically submit a site map with all required content.

Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 35830  
Site Name: HP Communications Inc.  
Violation Date: 07-24-2018

Citation: 22 CCR 12 66262.40(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.40(a)

Violation Description: Failure to keep a copy of each properly signed manifest for at least three years from the date the waste was accepted by the initial transporter. The manifest signed at the time the waste was accepted for transport shall be kept until receiving a signed copy from the designated facility which received the waste.

Violation Notes: OBSERVATION: Uniform Hazardous Waste Manifests for all wastes were not available at the time of inspection. CORRECTIVE ACTION: Locate copies of all manifests for all hazardous wastes (used oil, waste oil filters, waste coolant, etc.) and submit copies to the CUPA.

Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Evaluation:  
Eval General Type: Compliance Evaluation Inspection  
Eval Date: 07-24-2018  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Electronic Signature Not Captured

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HP COMMUNICATIONS INC. (Continued)**

**S121765947**

Eval Division: Union City Environmental Programs  
Eval Program: HW  
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 02-03-2017  
Violations Found: No  
Eval Type: Routine done by local agency  
Eval Notes: Routine inspection of the facility. Met with Simon Morris, Lead Mechanic. Hazardous Wastes generated at the site include used oil and used coolant. Old treated power poles are stored at the facility but picked up and disposed by HP's Client. EPA ID: CAL000409372 Name: HP COMMUNICATIONS Status: ACTIVE Inactive Date: Contact: AARON BARNHART This facility generates less than one 55 gallon drum of hazardous waste a month and is considered a CESQG. Facility has done a good job managing the hazardous waste, keeping the containers closed, and the area free of spills.

Eval Division: Union City Environmental Programs  
Eval Program: HW  
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 02-03-2017  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Routine inspection of the facility. Met with Simon Morris, Lead Mechanic. CERS was last submitted on 5/2/16. Please note: All elements of CERS need to be re-certified at least every 365 days.

Eval Division: Union City Environmental Programs  
Eval Program: HMRRP  
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 07-24-2018  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Electronic Signature Not Captured  
Eval Division: Union City Environmental Programs  
Eval Program: HMRRP  
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 10-15-2013  
Violations Found: No  
Eval Type: Routine done by local agency  
Eval Notes: Not reported  
Eval Division: Union City Environmental Programs  
Eval Program: HMRRP  
Eval Source: CERS

Enforcement Action:  
Site ID: 35830  
Site Name: HP Communications Inc.  
Site Address: 34151 ZWISSIG WAY  
Site City: UNION CITY  
Site Zip: 94587  
Enf Action Date: 02-03-2017



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HP COMMUNICATIONS INC. (Continued)**

**S121765947**

Enf Action Type: Notice of Violation (Unified Program)  
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection  
Enf Action Notes: Not reported  
Enf Action Division: Union City Environmental Programs  
Enf Action Program: HMRRP  
Enf Action Source: CERS

Coordinates:

Site ID: 35830  
Facility Name: HP Communications Inc.  
Env Int Type Code: HWG  
Program ID: 10145909  
Coord Name: Not reported  
Ref Point Type Desc: Center of a facility or station.  
Latitude: 37.593730  
Longitude: -122.012820

Affiliation:

Affiliation Type Desc: Operator  
Entity Name: Tobias Anderson  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: (951) 453-5915

Affiliation Type Desc: Document Preparer  
Entity Name: HEATHER beltran  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Environmental Contact  
Entity Name: John Lucas  
Entity Title: Not reported  
Affiliation Address: 34151 Zwissig Way  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address  
Entity Name: Mailing Address  
Entity Title: Not reported  
Affiliation Address: 34151 Zwissig Way  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HP COMMUNICATIONS INC. (Continued)**

**S121765947**

Affiliation Phone:	Not reported
Affiliation Type Desc:	Identification Signer
Entity Name:	HEATHER beltran
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Parent Corporation
Entity Name:	HP COMMUNICATIONS
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	CUPA District
Entity Name:	Union City Environmental Programs
Entity Title:	Not reported
Affiliation Address:	34009 Alvarado-Niles Road
Affiliation City:	Union City
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94587
Affiliation Phone:	(510) 675-5360
Affiliation Type Desc:	Legal Owner
Entity Name:	NICHOLAS GOLDMANN
Entity Title:	Not reported
Affiliation Address:	13341 Temescal Canyon Rd.
Affiliation City:	Corona
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	92883
Affiliation Phone:	(951) 572-1200
Affiliation Type Desc:	Property Owner
Entity Name:	BOC Enterprises, LLC
Entity Title:	Not reported
Affiliation Address:	30777 Rancho California Rd #891330
Affiliation City:	Temecula
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	92589
Affiliation Phone:	(951) 453-6645

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

I57  
SE  
< 1/8  
0.081 mi.  
426 ft.

**AMBO ENGINEERING CONTRACT**  
**34151 ZWISSIG**  
**UNION CITY, CA 94587**  
**Site 2 of 5 in cluster I**

**LUST** S100849226  
**HIST CORTESE** N/A  
**CERS**

**Relative:**  
**Lower**  
**Actual:**  
**56 ft.**

**LUST:**  
Lead Agency: ALAMEDA COUNTY WATER DISTRICT  
Case Type: LUST Cleanup Site  
Geo Track: [http://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=T0600101996](http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600101996)  
Global Id: T0600101996  
Latitude: 37.593732  
Longitude: -122.012814  
Status: Completed - Case Closed  
Status Date: 07/26/1996  
Case Worker: SDI  
RB Case Number: 01-2172  
Local Agency: ALAMEDA COUNTY WATER DISTRICT  
File Location: Not reported  
Local Case Number: 0167  
Potential Media Affect: Soil  
Potential Contaminants of Concern: Gasoline  
Site History: Not reported

**LUST:**  
Global Id: T0600101996  
Contact Type: Regional Board Caseworker  
Contact Name: Regional Water Board  
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)  
Address: 1515 CLAY ST SUITE 1400  
City: OAKLAND  
Email: Not reported  
Phone Number: Not reported

Global Id: T0600101996  
Contact Type: Local Agency Caseworker  
Contact Name: STEVEN D. INN  
Organization Name: ALAMEDA COUNTY WATER DISTRICT  
Address: 43885 SOUTH GRIMMER BOULEVARD  
City: FREMONT  
Email: steven.inn@acwd.com  
Phone Number: Not reported

**LUST:**  
Global Id: T0600101996  
Action Type: Other  
Date: 02/25/1993  
Action: Leak Reported

Global Id: T0600101996  
Action Type: ENFORCEMENT  
Date: 07/01/2002  
Action: \* No Action

Global Id: T0600101996  
Action Type: Other  
Date: 02/25/1993  
Action: Leak Discovery

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**AMBO ENGINEERING CONTRACT (Continued)**

**S100849226**

Global Id: T0600101996  
Action Type: Other  
Date: 02/25/1993  
Action: Leak Stopped

**LUST:**

Global Id: T0600101996  
Status: Completed - Case Closed  
Status Date: 07/26/1996

Global Id: T0600101996  
Status: Open - Case Begin Date  
Status Date: 10/16/1986

Global Id: T0600101996  
Status: Open - Site Assessment  
Status Date: 10/16/1986

**HIST CORTESE:**

Region: CORTESE  
Facility County Code: 1  
Reg By: LTNKA  
Reg Id: 01-2172

**CERS TANKS:**

Site ID: 228158  
CERS ID: T0600101996  
Site Name: AMBO ENGINEERING CONTRACTORS  
CERS Description: Leaking Underground Storage Tank Cleanup Site

**Affiliation:**

Affiliation Type Desc: Local Agency Caseworker  
Entity Name: MICHELLE A. MYERS - ALAMEDA COUNTY WATER DISTRICT  
Entity Title: Not reported  
Affiliation Address: 43885 SOUTH GRIMMER BOULEVARD  
Affiliation City: FREMONT  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Regional Board Caseworker  
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)  
Entity Title: Not reported  
Affiliation Address: 1515 CLAY ST SUITE 1400  
Affiliation City: OAKLAND  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

I58  
SE  
< 1/8  
0.081 mi.  
426 ft.

AMBO ENGINEERING INC  
34151 ZWISSIG WAY  
UNION CITY, CA 94587

LUST  
SWEEPS UST S102423921  
N/A

Site 3 of 5 in cluster I

Relative:  
Lower

LUST REG 2:

Actual:  
56 ft.

Region: 2  
Facility Id: 01-2172  
Facility Status: Case Closed  
Case Number: 0167  
How Discovered: Tank Closure  
Leak Cause: UNK  
Leak Source: Tank  
Date Leak Confirmed: 10/16/1986  
Oversight Program: LUST  
Prelim. Site Assessment Wokplan Submitted: Not reported  
Preliminary Site Assessment Began: Not reported  
Pollution Characterization Began: Not reported  
Pollution Remediation Plan Submitted: Not reported  
Date Remediation Action Underway: Not reported  
Date Post Remedial Action Monitoring Began: Not reported

SWEEPS UST:

Status: Not reported  
Comp Number: 320  
Number: Not reported  
Board Of Equalization: Not reported  
Referral Date: Not reported  
Action Date: Not reported  
Created Date: Not reported  
Owner Tank Id: Not reported  
SWRCB Tank Id: 01-011-000320-000001  
Tank Status: Not reported  
Capacity: 5000  
Active Date: Not reported  
Tank Use: PETROLEUM  
STG: PRODUCT  
Content: REGULAR UNLE  
Number Of Tanks: 2

Status: Not reported  
Comp Number: 320  
Number: Not reported  
Board Of Equalization: Not reported  
Referral Date: Not reported  
Action Date: Not reported  
Created Date: Not reported  
Owner Tank Id: Not reported  
SWRCB Tank Id: 01-011-000320-000002  
Tank Status: Not reported  
Capacity: 3000  
Active Date: Not reported  
Tank Use: PETROLEUM  
STG: PRODUCT  
Content: DIESEL  
Number Of Tanks: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

J59  
ESE  
< 1/8  
0.083 mi.  
437 ft.

**UNIZAK CORPORATION**  
34135 7TH ST  
UNION CITY, CA 94587  
**Site 1 of 2 in cluster J**

RCRA-SQG 1000443011  
FINDS CAD981463367  
ECHO

Relative:  
Lower

RCRA-SQG:

Actual:  
57 ft.

Date form received by agency: 04/01/1986  
Facility name: UNIZAK CORPORATION  
Facility address: 34135 7TH ST  
UNION CITY, CA 94587  
EPA ID: CAD981463367  
Mailing address: SEVENTH ST  
UNION CITY, CA 94587  
Contact: ENVIRONMENTAL MANAGER  
Contact address: 34135 SEVENTH ST  
UNION CITY, CA 94587  
Contact country: US  
Contact telephone: 415-487-8900  
Contact email: Not reported  
EPA Region: 09  
Classification: Small Small Quantity Generator  
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name: TORU HATAZAWA  
Owner/operator address: NOT REQUIRED  
NOT REQUIRED, ME 99999  
Owner/operator country: Not reported  
Owner/operator telephone: 415-555-1212  
Owner/operator email: Not reported  
Owner/operator fax: Not reported  
Owner/operator extension: Not reported  
Legal status: Private  
Owner/Operator Type: Owner  
Owner/Op start date: Not reported  
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED  
Owner/operator address: NOT REQUIRED  
NOT REQUIRED, ME 99999  
Owner/operator country: Not reported  
Owner/operator telephone: 415-555-1212  
Owner/operator email: Not reported  
Owner/operator fax: Not reported  
Owner/operator extension: Not reported  
Legal status: Private  
Owner/Operator Type: Operator  
Owner/Op start date: Not reported  
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): No

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**UNIZAK CORPORATION (Continued)**

**1000443011**

Recycler of hazardous waste: No  
 Transporter of hazardous waste: No  
 Treater, storer or disposer of HW: No  
 Underground injection activity: No  
 On-site burner exemption: No  
 Furnace exemption: No  
 Used oil fuel burner: No  
 Used oil processor: No  
 User oil refiner: No  
 Used oil fuel marketer to burner: No  
 Used oil Specification marketer: No  
 Used oil transfer facility: No  
 Used oil transporter: No

Violation Status: No violations found

**FINDS:**

Registry ID: 110002716151

**Environmental Interest/Information System**

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

**ECHO:**

Envid: 1000443011  
 Registry ID: 110002716151  
 DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110002716151>

**J60**  
**ESE**  
 < 1/8  
 0.083 mi.  
 437 ft.

**NEMAT INTERNATIONAL, INC.**  
 34135 7TH ST  
 UNION CITY, CA 94587

**CERS HAZ WASTE** **S123101562**  
**CERS** **N/A**

**Site 2 of 2 in cluster J**

**Relative:** CERS HAZ WASTE:  
**Lower** Site ID: 441341  
 CERS ID: 10768585  
**Actual:** CERS Description: Hazardous Waste Generator  
 57 ft.

Coordinates:  
 Site ID: 441341  
 Facility Name: Nemat International, Inc.  
 Env Int Type Code: HMBP  
 Program ID: 10768585  
 Coord Name: Not reported  
 Ref Point Type Desc: Center of a facility or station.  
 Latitude: 37.594290  
 Longitude: -122.012010

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**NEMAT INTERNATIONAL, INC. (Continued)**

**S123101562**

Affiliation:

Affiliation Type Desc: CUPA District  
Entity Name: Union City Environmental Programs  
Entity Title: Not reported  
Affiliation Address: 34009 Alvarado-Niles Road  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: (510) 675-5360

Affiliation Type Desc: Facility Mailing Address  
Entity Name: Mailing Address  
Entity Title: Not reported  
Affiliation Address: 34135 7th Street  
Affiliation City: UNION CITY  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: Not reported

Affiliation Type Desc: Operator  
Entity Name: Abbas Attarwala  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: (510) 445-0300

Affiliation Type Desc: Parent Corporation  
Entity Name: Nemat International, Inc.  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Document Preparer  
Entity Name: Abbas Attarwala  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Property Owner  
Entity Name: UC Business Properties  
Entity Title: Not reported  
Affiliation Address: 34135 7th Street  
Affiliation City: UNION CITY  
Affiliation State: CA



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**NEMAT INTERNATIONAL, INC. (Continued)**

**S123101562**

Affiliation Country: United States  
Affiliation Zip: 94587  
Affiliation Phone: (510) 445-0300

Affiliation Type Desc: Legal Owner  
Entity Name: Abbas Attarwala  
Entity Title: Not reported  
Affiliation Address: 34135 7th Street  
Affiliation City: UNION CITY  
Affiliation State: CA  
Affiliation Country: United States  
Affiliation Zip: 94587  
Affiliation Phone: (510) 445-0300

Affiliation Type Desc: Environmental Contact  
Entity Name: Abbas Attarwala  
Entity Title: Not reported  
Affiliation Address: 34135 7TH STREET  
Affiliation City: UNION CITY  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: Not reported

Affiliation Type Desc: Identification Signer  
Entity Name: Abbas Attarwala  
Entity Title: Vice President  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

CERS TANKS:  
Site ID: 441341  
CERS ID: 10768585  
Site Name: NEMAT INTERNATIONAL, INC.  
CERS Description: Chemical Storage Facilities

Coordinates:  
Site ID: 441341  
Facility Name: Nemat International, Inc.  
Env Int Type Code: HMBP  
Program ID: 10768585  
Coord Name: Not reported  
Ref Point Type Desc: Center of a facility or station.  
Latitude: 37.594290  
Longitude: -122.012010

Affiliation:  
Affiliation Type Desc: CUPA District  
Entity Name: Union City Environmental Programs  
Entity Title: Not reported  
Affiliation Address: 34009 Alvarado-Niles Road  
Affiliation City: Union City

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**NEMAT INTERNATIONAL, INC. (Continued)**

**S123101562**

Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: (510) 675-5360

Affiliation Type Desc: Facility Mailing Address  
Entity Name: Mailing Address  
Entity Title: Not reported  
Affiliation Address: 34135 7th Street  
Affiliation City: UNION CITY  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: Not reported

Affiliation Type Desc: Operator  
Entity Name: Abbas Attarwala  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: (510) 445-0300

Affiliation Type Desc: Parent Corporation  
Entity Name: Nemat International, Inc.  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Document Preparer  
Entity Name: Abbas Attarwala  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Property Owner  
Entity Name: UC Business Properties  
Entity Title: Not reported  
Affiliation Address: 34135 7th Street  
Affiliation City: UNION CITY  
Affiliation State: CA  
Affiliation Country: United States  
Affiliation Zip: 94587  
Affiliation Phone: (510) 445-0300

Affiliation Type Desc: Legal Owner  
Entity Name: Abbas Attarwala

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**NEMAT INTERNATIONAL, INC. (Continued)**

**S123101562**

Entity Title: Not reported  
Affiliation Address: 34135 7th Street  
Affiliation City: UNION CITY  
Affiliation State: CA  
Affiliation Country: United States  
Affiliation Zip: 94587  
Affiliation Phone: (510) 445-0300

Affiliation Type Desc: Environmental Contact  
Entity Name: Abbas Attarwala  
Entity Title: Not reported  
Affiliation Address: 34135 7TH STREET  
Affiliation City: UNION CITY  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: Not reported

Affiliation Type Desc: Identification Signer  
Entity Name: Abbas Attarwala  
Entity Title: Vice President  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

61  
NE  
< 1/8  
0.106 mi.  
559 ft.

**MAGNAFLUX SURFACE CONDITIONERS INC**  
**301 DAGGETT ST**  
**UNION CITY, CA 94587**

**RCRA NonGen / NLR 1000307011**  
**FINDS CAD080712136**  
**ECHO**

**Relative:**  
**Higher**  
**Actual:**  
**67 ft.**

RCRA NonGen / NLR:  
Date form received by agency: 11/18/1980  
Facility name: MAGNAFLUX SURFACE CONDITIONERS INC  
Facility address: 301 DAGGETT ST  
UNION CITY, CA 94587  
EPA ID: CAD080712136  
Mailing address: 301 DAGGETT STREET  
UNION CITY, CA 94587  
Contact: ENVIRONMENTAL MANAGER  
Contact address: 301 DAGGETT ST  
UNION CITY, CA 94587  
Contact country: US  
Contact telephone: 415-489-8111  
Contact email: Not reported  
EPA Region: 09  
Classification: Non-Generator  
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:  
Owner/operator name: PEABODY-GALION DBA MAGNAFLUX-OMEGA  
Owner/operator address: NOT REQUIRED  
NOT REQUIRED, ME 99999

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MAGNAFLUX SURFACE CONDITIONERS INC (Continued)**

**1000307011**

Owner/operator country: Not reported  
Owner/operator telephone: 415-555-1212  
Owner/operator email: Not reported  
Owner/operator fax: Not reported  
Owner/operator extension: Not reported  
Legal status: Private  
Owner/Operator Type: Owner  
Owner/Op start date: Not reported  
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED  
Owner/operator address: NOT REQUIRED  
NOT REQUIRED, ME 99999

Owner/operator country: Not reported  
Owner/operator telephone: 415-555-1212  
Owner/operator email: Not reported  
Owner/operator fax: Not reported  
Owner/operator extension: Not reported  
Legal status: Private  
Owner/Operator Type: Operator  
Owner/Op start date: Not reported  
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): No  
Recycler of hazardous waste: No  
Transporter of hazardous waste: No  
Treater, storer or disposer of HW: No  
Underground injection activity: No  
On-site burner exemption: No  
Furnace exemption: No  
Used oil fuel burner: No  
Used oil processor: No  
User oil refiner: No  
Used oil fuel marketer to burner: No  
Used oil Specification marketer: No  
Used oil transfer facility: No  
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110002660095

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**MAGNAFLUX SURFACE CONDITIONERS INC (Continued)**

**1000307011**

ECHO:

Envid: 1000307011  
 Registry ID: 110002660095  
 DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110002660095>

**K62**  
**SW**  
**< 1/8**  
**0.123 mi.**  
**649 ft.**

**T & L MUFFLER**  
**1007 DECOTO RD**  
**UNION CITY, CA 94587**  
**Site 1 of 3 in cluster K**

**CERS HAZ WASTE** **S121747961**  
**CERS** **N/A**

**Relative:**  
**Lower**  
**Actual:**  
**63 ft.**

CERS HAZ WASTE:  
 Site ID: 158858  
 CERS ID: 10003273  
 CERS Description: Hazardous Waste Generator

Violations:

Site ID: 158858  
 Site Name: T & L Muffler  
 Violation Date: 07-20-2018  
 Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)  
 Violation Description: Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.  
 Violation Notes: Returned to compliance on 10/04/2018. OBSERVATION: The accumulation start dates were missing on the waste oil, waste anti-freeze and oil filters. Also, the 55 gallon drum of used oil underneath the oil filter crusher must have a completely filled out hazardous waste label. CORRECTIVE ACTION: Fill out label with the accumulation start date for each waste container and affix label to 55 gallon drum of waste oil under the filter crusher. Send a photo of the labels to the CUPA office once complete.  
 Violation Division: Union City Environmental Programs  
 Violation Program: HW  
 Violation Source: CERS

Evaluation:

Eval General Type: Compliance Evaluation Inspection  
 Eval Date: 07-19-2018  
 Violations Found: No  
 Eval Type: Routine done by local agency  
 Eval Notes: Electronic Signature Not Captured  
 Eval Division: Union City Environmental Programs  
 Eval Program: HMRRP  
 Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
 Eval Date: 07-19-2018  
 Violations Found: Yes  
 Eval Type: Routine done by local agency  
 Eval Notes: Electronic Signature Not Captured  
 Eval Division: Union City Environmental Programs  
 Eval Program: HW  
 Eval Source: CERS

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**T & L MUFFLER (Continued)**

**S121747961**

Coordinates:

Site ID: 158858  
Facility Name: T & L Muffler  
Env Int Type Code: HWG  
Program ID: 10003273  
Coord Name: Not reported  
Ref Point Type Desc: Unknown  
Latitude: 37.594147  
Longitude: -122.019463

Affiliation:

Affiliation Type Desc: Operator  
Entity Name: Tom Gomer  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: (510) 386-4482

Affiliation Type Desc: Parent Corporation  
Entity Name: T & L Muffler  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: CUPA District  
Entity Name: Union City Environmental Programs  
Entity Title: Not reported  
Affiliation Address: 34009 Alvarado-Niles Road  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: (510) 675-5360

Affiliation Type Desc: Environmental Contact  
Entity Name: THOMAS GOMER  
Entity Title: Not reported  
Affiliation Address: 1007 DECOTO RD  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address  
Entity Name: Mailing Address  
Entity Title: Not reported  
Affiliation Address: 1007 Decoto Rd  
Affiliation City: Union City

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**T & L MUFFLER (Continued)**

**S121747961**

Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: Not reported

Affiliation Type Desc: Identification Signer  
Entity Name: THOMAS GOMER  
Entity Title: OWNER  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner  
Entity Name: THOMAS GOMER  
Entity Title: Not reported  
Affiliation Address: 1007 Decoto Rd  
Affiliation City: Union city  
Affiliation State: CA  
Affiliation Country: United States  
Affiliation Zip: 94597  
Affiliation Phone: (510) 489-8756

Affiliation Type Desc: Property Owner  
Entity Name: BRINGHURST LLC  
Entity Title: Not reported  
Affiliation Address: P.O. BOX 3041  
Affiliation City: FREMONT  
Affiliation State: CA  
Affiliation Country: United States  
Affiliation Zip: 94539  
Affiliation Phone: (510) 656-5750

CERS TANKS:  
Site ID: 158858  
CERS ID: 10003273  
Site Name: T & L MUFFLER  
CERS Description: Chemical Storage Facilities

Violations:  
Site ID: 158858  
Site Name: T & L Muffler  
Violation Date: 07-20-2018  
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)  
Violation Description: Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.  
Violation Notes: Returned to compliance on 10/04/2018. OBSERVATION: The accumulation start dates were missing on the waste oil, waste anti-freeze and oil filters. Also, the 55 gallon drum of used oil underneath the oil filter crusher must have a completely filled out hazardous waste

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**T & L MUFFLER (Continued)**

**S121747961**

label. CORRECTIVE ACTION: Fill out label with the accumulation start date for each waste container and affix label to 55 gallon drum of waste oil under the filter crusher. Send a photo of the labels to the CUPA office once complete.

Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Evaluation:

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 07-19-2018  
Violations Found: No  
Eval Type: Routine done by local agency  
Eval Notes: Electronic Signature Not Captured  
Eval Division: Union City Environmental Programs  
Eval Program: HMRRP  
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 07-19-2018  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Electronic Signature Not Captured  
Eval Division: Union City Environmental Programs  
Eval Program: HW  
Eval Source: CERS

Coordinates:

Site ID: 158858  
Facility Name: T & L Muffler  
Env Int Type Code: HWG  
Program ID: 10003273  
Coord Name: Not reported  
Ref Point Type Desc: Unknown  
Latitude: 37.594147  
Longitude: -122.019463

Affiliation:

Affiliation Type Desc: Operator  
Entity Name: Tom Gomer  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: (510) 386-4482

Affiliation Type Desc: Parent Corporation  
Entity Name: T & L Muffler  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**T & L MUFLER (Continued)**

**S121747961**

Affiliation Phone: Not reported

Affiliation Type Desc: CUPA District  
Entity Name: Union City Environmental Programs  
Entity Title: Not reported  
Affiliation Address: 34009 Alvarado-Niles Road  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: (510) 675-5360

Affiliation Type Desc: Environmental Contact  
Entity Name: THOMAS GOMER  
Entity Title: Not reported  
Affiliation Address: 1007 DECOTO RD  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address  
Entity Name: Mailing Address  
Entity Title: Not reported  
Affiliation Address: 1007 Decoto Rd  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: Not reported

Affiliation Type Desc: Identification Signer  
Entity Name: THOMAS GOMER  
Entity Title: OWNER  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner  
Entity Name: THOMAS GOMER  
Entity Title: Not reported  
Affiliation Address: 1007 Decoto Rd  
Affiliation City: Union city  
Affiliation State: CA  
Affiliation Country: United States  
Affiliation Zip: 94597  
Affiliation Phone: (510) 489-8756

Affiliation Type Desc: Property Owner  
Entity Name: BRINGHURST LLC  
Entity Title: Not reported  
Affiliation Address: P.O. BOX 3041  
Affiliation City: FREMONT

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**T & L MUFFLER (Continued)**

**S121747961**

Affiliation State: CA  
 Affiliation Country: United States  
 Affiliation Zip: 94539  
 Affiliation Phone: (510) 656-5750

**K63  
 SW  
 < 1/8  
 0.123 mi.  
 649 ft.**

**T & L MUFFLER & BRAKE  
 1007 DECOTO RD  
 UNION CITY, CA 94587**

**EDR Hist Auto 1020679405  
 N/A**

**Site 2 of 3 in cluster K**

**Relative:  
 Lower**

EDR Hist Auto

**Actual:  
 63 ft.**

Year:	Name:	Type:
1976	R N O INC	Auto And Home Supply Stores
1980	T & L MUFFLER & BRAKE	Automotive Repair Shops, NEC
1982	T & L MUFFLER & BRAKE	Automotive Repair Shops, NEC
1983	T & L MUFFLER & BRAKE	Automotive Repair Shops, NEC
1985	T & L MUFFLER & BRAKE	Automotive Repair Shops, NEC
1986	T & L MUFFLER & BRAKE	Automotive Repair Shops, NEC
1987	T & L MUFFLER & BRAKE	Automotive Repair Shops, NEC
1988	T & L MUFFLER & BRAKE	Automotive Repair Shops, NEC
1989	T & L MUFFLER & BRAKE	Auto Exhaust System Repair Shops, NEC
1989	THOMAS E GOMER & LESLIE G	General Automotive Repair Shops
1990	T & L MUFFLER & BRAKE	Auto Exhaust System Repair Shops, NEC
1991	THOMAS E GOMER & LESLIE G	General Automotive Repair Shops
1991	T & L MUFFLER & BRAKE	Automotive Repair Shops, NEC
1992	T & L MUFFLER & BRAKE	Automotive Repair Shops, NEC
1992	THOMAS E GOMER & LESLIE G	General Automotive Repair Shops
1993	T & L MUFFLER & BRAKE	Automotive Repair Shops, NEC
1993	THOMAS E GOMER & LESLIE G	General Automotive Repair Shops
1994	T & L MUFFLER & BRAKE	Automotive Repair Shops, NEC
1995	T & L MUFFLER & BRAKE	Automotive Repair Shops, NEC
1996	T & L MUFFLER & BRAKE	Automotive Repair Shops, NEC
1997	T & L MUFFLER & BRAKE	Automotive Repair Shops, NEC
1998	T & L MUFFLER & BRAKE	Automotive Repair Shops, NEC
1999	T & L MUFFLER & BRAKE	Automotive Repair Shops, NEC
2000	T & L MUFFLER & BRAKE	Automotive Repair Shops, NEC
2000	T&L TRANSMISSIONS	Automotive Transmission Repair Shops
2001	T & L MUFFLER & BRAKE	Automotive Repair Shops, NEC
2001	T&L TRANSMISSIONS	Automotive Transmission Repair Shops
2002	T & L MUFFLER & BRAKE	Automotive Repair Shops, NEC
2002	T&L TRANSMISSIONS	Automotive Transmission Repair Shops
2003	T&L TRANSMISSIONS	Automotive Transmission Repair Shops
2003	T & L MUFFLER & BRAKE	Automotive Repair Shops, NEC
2004	T & L MUFFLER & BRAKE	Automotive Repair Shops, NEC
2004	T & L TRANSMISSIONS	Automotive Transmission Repair Shops
2004	ELITE AUTO REPAIR	General Automotive Repair Shops
2005	CHY AUTO REPAIR	General Automotive Repair Shops
2005	T & L TRANSMISSIONS	Automotive Transmission Repair Shops
2005	ELITE AUTO REPAIR	General Automotive Repair Shops
2005	T & L MUFFLER & BRAKE	Automotive Repair Shops, NEC
2006	T & L TRANSMISSIONS	Automotive Transmission Repair Shops
2006	T & L MUFFLER & BRAKE	Automotive Repair Shops, NEC
2006	ELITE AUTO REPAIR	General Automotive Repair Shops
2007	T & L TRANSMISSIONS	Automotive Transmission Repair Shops
2007	ELITE AUTO REPAIR	General Automotive Repair Shops

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**T & L MUFFLER & BRAKE (Continued)**

**1020679405**

2007	T & L MUFFLER & BRAKE	Automotive Repair Shops, NEC
2008	ELITE AUTO REPAIR	General Automotive Repair Shops
2008	T & L MUFFLER & BRAKE	Automotive Repair Shops, NEC
2008	T & L TRANSMISSIONS	Automotive Transmission Repair Shops
2009	ELITE AUTO REPAIR	General Automotive Repair Shops
2009	T & L TRANSMISSIONS	Automotive Transmission Repair Shops
2009	T & L MUFFLER & BRAKE	Automotive Repair Shops, NEC
2010	T & L MUFFLER & BRAKE	Automotive Repair Shops, NEC
2010	ELITE AUTO REPAIR	General Automotive Repair Shops
2010	T & L TRANSMISSIONS	Automotive Transmission Repair Shops
2011	ELITE AUTO REPAIR	General Automotive Repair Shops
2011	T & L TRANSMISSIONS	Automotive Transmission Repair Shops
2011	T & L MUFFLER & BRAKE	Automotive Repair Shops, NEC
2012	ELITE AUTO REPAIR	General Automotive Repair Shops
2012	T & L MUFFLER & BRAKE	Automotive Repair Shops, NEC
2012	T & L TRANSMISSIONS	Automotive Transmission Repair Shops
2013	T & L MUFFLER & BRAKE	Automotive Repair Shops, NEC
2013	T & L TRANSMISSIONS	Automotive Transmission Repair Shops
2014	T & L TRANSMISSIONS	Automotive Transmission Repair Shops
2014	T & L MUFFLER & BRAKE	Automotive Repair Shops, NEC

**K64**  
**SW**  
 < 1/8  
 0.123 mi.  
 649 ft.

**T & L MUFFLERS & BRAKES**  
**1007 DECOTO RD**  
**UNION CITY, CA 94587**  
**Site 3 of 3 in cluster K**

**RCRA-SQG** **1000121698**  
**FINDS** **CAD981443492**  
**ECHO**  
**HAZNET**

**Relative:**  
**Lower**  
**Actual:**  
**63 ft.**

RCRA-SQG:  
 Date form received by agency: 09/01/1996  
 Facility name: T & L MUFFLERS & BRAKES  
 Facility address: 1007 DECOTO RD  
 UNION CITY, CA 94587  
 EPA ID: CAD981443492  
 Contact: Not reported  
 Contact address: Not reported  
 Not reported  
 Contact country: US  
 Contact telephone: Not reported  
 Contact email: Not reported  
 EPA Region: 09  
 Classification: Small Small Quantity Generator  
 Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:  
 Owner/operator name: NOT REQUIRED  
 Owner/operator address: NOT REQUIRED  
 NOT REQUIRED, ME 99999  
 Owner/operator country: Not reported  
 Owner/operator telephone: 415-555-1212  
 Owner/operator email: Not reported  
 Owner/operator fax: Not reported  
 Owner/operator extension: Not reported  
 Legal status: Private

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**T & L MUFLERS & BRAKES (Continued)**

**1000121698**

Owner/Operator Type: Operator  
Owner/Op start date: Not reported  
Owner/Op end date: Not reported

Owner/operator name: TOM GOMEZ  
Owner/operator address: NOT REQUIRED  
NOT REQUIRED, ME 99999

Owner/operator country: Not reported  
Owner/operator telephone: 415-555-1212  
Owner/operator email: Not reported  
Owner/operator fax: Not reported  
Owner/operator extension: Not reported  
Legal status: Private  
Owner/Operator Type: Owner  
Owner/Op start date: Not reported  
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): No  
Recycler of hazardous waste: No  
Transporter of hazardous waste: No  
Treater, storer or disposer of HW: No  
Underground injection activity: No  
On-site burner exemption: No  
Furnace exemption: No  
Used oil fuel burner: No  
Used oil processor: No  
User oil refiner: No  
Used oil fuel marketer to burner: No  
Used oil Specification marketer: No  
Used oil transfer facility: No  
Used oil transporter: No

Historical Generators:

Date form received by agency: 09/10/1986  
Site name: T & L MUFLERS & BRAKES  
Classification: Large Quantity Generator

Violation Status: No violations found

FINDS:

Registry ID: 110002708142

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

STATE MASTER

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**T & L MUFFLERS & BRAKES (Continued)**

**1000121698**

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

**ECHO:**

Envid: 1000121698  
Registry ID: 110002708142  
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110002708142>

**HAZNET:**

Site Name: T & L MUFFLERS & BRAKES  
Year: 2017  
GEPaid: CAD981443492  
Contact: TOM GOMER  
Telephone: 5104898756  
Mailing Name: Not reported  
Mailing Address: 1007 DECOTO RD  
Mailing City,St,Zip: UNION CITY, CA 945870000  
Gen County: Alameda  
TSD EPA ID: CAD980887418  
TSD County: Alameda  
Tons: 0.417  
CA Waste Code: 133-Aqueous solution with total organic residues 10 percent or more  
Method: H141-Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)  
Facility County: Alameda

Site Name: T & L MUFFLERS & BRAKES  
Year: 2017  
GEPaid: CAD981443492  
Contact: TOM GOMER  
Telephone: 5104898756  
Mailing Name: Not reported  
Mailing Address: 1007 DECOTO RD  
Mailing City,St,Zip: UNION CITY, CA 945870000  
Gen County: Alameda  
TSD EPA ID: AZR000003681  
TSD County: 99  
Tons: 0.15  
CA Waste Code: 223-Unspecified oil-containing waste  
Method: H039-Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect  
Facility County: Alameda

Site Name: T & L MUFFLERS & BRAKES  
Year: 2017  
GEPaid: CAD981443492  
Contact: TOM GOMER  
Telephone: 5104898756  
Mailing Name: Not reported  
Mailing Address: 1007 DECOTO RD  
Mailing City,St,Zip: UNION CITY, CA 945870000  
Gen County: Alameda  
TSD EPA ID: CA0000084517  
TSD County: Sacramento  
Tons: 0.966

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**T & L MUFFLERS & BRAKES (Continued)**

**1000121698**

CA Waste Code: 134-Aqueous solution with total organic residues less than 10 percent  
Method: H141-Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery  
(H010-H129) Or (H131-H135)  
Facility County: Alameda

Site Name: T & L MUFFLERS & BRAKES  
Year: 2016  
GEPaid: CAD981443492  
Contact: TOM GOMER  
Telephone: 5104898756  
Mailing Name: Not reported  
Mailing Address: 1007 DECOTO RD  
Mailing City,St,Zip: UNION CITY, CA 945870000  
Gen County: Alameda  
TSD EPA ID: CA0000084517  
TSD County: Sacramento  
Tons: 0.7854  
CA Waste Code: 134-  
Method: H141-  
Facility County: Alameda

Site Name: T & L MUFFLERS & BRAKES  
Year: 2016  
GEPaid: CAD981443492  
Contact: TOM GOMER  
Telephone: 5104898756  
Mailing Name: Not reported  
Mailing Address: 1007 DECOTO RD  
Mailing City,St,Zip: UNION CITY, CA 945870000  
Gen County: Alameda  
TSD EPA ID: CAD980887418  
TSD County: Alameda  
Tons: 0.417  
CA Waste Code: 133-  
Method: H141-  
Facility County: Alameda

[Click this hyperlink](#) while viewing on your computer to access  
19 additional CA\_HAZNET: record(s) in the EDR Site Report.

**I65**  
**SE**  
**< 1/8**  
**0.123 mi.**  
**651 ft.**

**MANUEL C JARDIM, INC**  
**34201 ZWISSIG WAY**  
**UNION CITY, CA 94587**  
**Site 4 of 5 in cluster I**

**SWEEPS UST** **S106929044**  
**N/A**

**Relative:**  
**Lower**  
**Actual:**  
**55 ft.**

SWEEPS UST:  
Status: Active  
Comp Number: 100017  
Number: 1  
Board Of Equalization: Not reported  
Referral Date: 02-20-91  
Action Date: 02-20-91  
Created Date: 02-20-91  
Owner Tank Id: Not reported  
SWRCB Tank Id: 01-011-100017-000001  
Tank Status: A  
Capacity: 10000

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MANUEL C JARDIM, INC (Continued)**

**S106929044**

Active Date: 02-20-91  
Tank Use: M.V. FUEL  
STG: P  
Content: DIESEL  
Number Of Tanks: 2  
  
Status: Active  
Comp Number: 100017  
Number: 1  
Board Of Equalization: Not reported  
Referral Date: 02-20-91  
Action Date: 02-20-91  
Created Date: 02-20-91  
Owner Tank Id: Not reported  
SWRCB Tank Id: 01-011-100017-000002  
Tank Status: A  
Capacity: 10000  
Active Date: 02-20-91  
Tank Use: M.V. FUEL  
STG: P  
Content: LEADED  
Number Of Tanks: Not reported

**I66  
SE  
< 1/8  
0.123 mi.  
652 ft.**

**BRUCE PAINTING INC  
34203 ZWISSIG WAY  
UNION CITY, CA 94587  
Site 5 of 5 in cluster I**

**RCRA-SQG 1000168470  
FINDS CAD982344988  
ECHO  
HAZNET**

**Relative:  
Lower  
Actual:  
55 ft.**

RCRA-SQG:  
Date form received by agency: 01/15/1988  
Facility name: BRUCE PAINTING INC  
Facility address: 34203 ZWISSIG WAY  
UNION CITY, CA 94587  
EPA ID: CAD982344988  
Contact: ENVIRONMENTAL MANAGER  
Contact address: 34203 ZWISSIG WAY  
UNION CITY, CA 94587  
Contact country: US  
Contact telephone: 415-791-1500  
Contact email: Not reported  
EPA Region: 09  
Classification: Small Small Quantity Generator  
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:  
Owner/operator name: BRUCE PAINTING INC  
Owner/operator address: NOT REQUIRED  
NOT REQUIRED, ME 99999  
Owner/operator country: Not reported  
Owner/operator telephone: 415-555-1212  
Owner/operator email: Not reported  
Owner/operator fax: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**BRUCE PAINTING INC (Continued)**

**1000168470**

Owner/operator extension: Not reported  
Legal status: Private  
Owner/Operator Type: Owner  
Owner/Op start date: Not reported  
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED  
Owner/operator address: NOT REQUIRED  
NOT REQUIRED, ME 99999

Owner/operator country: Not reported  
Owner/operator telephone: 415-555-1212  
Owner/operator email: Not reported  
Owner/operator fax: Not reported  
Owner/operator extension: Not reported  
Legal status: Private  
Owner/Operator Type: Operator  
Owner/Op start date: Not reported  
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): No  
Recycler of hazardous waste: No  
Transporter of hazardous waste: No  
Treater, storer or disposer of HW: No  
Underground injection activity: No  
On-site burner exemption: No  
Furnace exemption: No  
Used oil fuel burner: No  
Used oil processor: No  
User oil refiner: No  
Used oil fuel marketer to burner: No  
Used oil Specification marketer: No  
Used oil transfer facility: No  
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110002797279

Environmental Interest/Information System

California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**BRUCE PAINTING INC (Continued)**

**1000168470**

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1000168470  
Registry ID: 110002797279  
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110002797279>

HAZNET:

Site Name: BRUCE PAINTING INC  
Year: 1996  
GEPaid: CAD982344988  
Contact: TROY ANDREWS, PRESIDENT  
Telephone: 5107911500  
Mailing Name: Not reported  
Mailing Address: 34203 ZWISSIG WAY  
Mailing City,St,Zip: UNION CITY, CA 945870000  
Gen County: Not reported  
TSD EPA ID: CAD009452657  
TSD County: Not reported  
Tons: .2293  
CA Waste Code: 291-  
Method: R01-  
Facility County: 1

Site Name: BRUCE PAINTING INC  
Year: 1996  
GEPaid: CAD982344988  
Contact: TROY ANDREWS, PRESIDENT  
Telephone: 5107911500  
Mailing Name: Not reported  
Mailing Address: 34203 ZWISSIG WAY  
Mailing City,St,Zip: UNION CITY, CA 945870000  
Gen County: Not reported  
TSD EPA ID: CAD009452657  
TSD County: Not reported  
Tons: .1251  
CA Waste Code: 214-  
Method: R01-  
Facility County: 1

Site Name: BRUCE PAINTING INC  
Year: 1994  
GEPaid: CAD982344988  
Contact: TROY ANDREWS, PRESIDENT  
Telephone: 5107911500  
Mailing Name: Not reported  
Mailing Address: 34203 ZWISSIG WAY  
Mailing City,St,Zip: UNION CITY, CA 945870000  
Gen County: Not reported  
TSD EPA ID: CAD009452657  
TSD County: Not reported  
Tons: .2293  
CA Waste Code: 214-  
Method: R01-

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**BRUCE PAINTING INC (Continued)**

1000168470

Facility County: 1

L67  
ESE  
1/8-1/4  
0.135 mi.  
715 ft.

**CONKLIN & CONKLIN, INC**  
34201 7TH ST  
UNION CITY, CA 94587

**CERS HAZ WASTE** S121772326  
**CERS** N/A

**Site 1 of 2 in cluster L**

**Relative:**  
**Lower**  
**Actual:**  
**57 ft.**

CERS HAZ WASTE:  
Site ID: 390479  
CERS ID: 10003570  
CERS Description: Hazardous Waste Generator

Violations:

Site ID: 390479  
Site Name: Conklin & Conklin, Inc  
Violation Date: 08-07-2014  
Citation: 40 CFR 1 265.173 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.173  
Violation Description: Failure to properly close hazardous waste containers when not in active use.  
Violation Notes: Returned to compliance on 08/07/2014.  
Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Site ID: 390479  
Site Name: Conklin & Conklin, Inc  
Violation Date: 06-28-2018  
Citation: HSC 6.95 25508.2 - California Health and Safety Code, Chapter 6.95, Section(s) 25508.2  
Violation Description: Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.  
Violation Notes: Not reported  
Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 390479  
Site Name: Conklin & Conklin, Inc  
Violation Date: 08-07-2014  
Citation: 22 CCR 12 66262.23(a)(4) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.23(a)(4)  
Violation Description: Failure to send hazardous waste manifest copies to DTSC.  
Violation Notes: Returned to compliance on 11/13/2015.  
Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Evaluation:

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 06-12-2018  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Not reported  
Eval Division: Union City Environmental Programs  
Eval Program: HMRRP

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CONKLIN & CONKLIN, INC (Continued)**

**S121772326**

Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 08-07-2014  
Violations Found: No  
Eval Type: Routine done by local agency  
Eval Notes: Not reported  
Eval Division: Union City Environmental Programs  
Eval Program: HMRRP  
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 06-12-2018  
Violations Found: No  
Eval Type: Routine done by local agency  
Eval Notes: Electronic Signature Not Captured  
Eval Division: Union City Environmental Programs  
Eval Program: HW  
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 08-07-2014  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Not reported  
Eval Division: Union City Environmental Programs  
Eval Program: HW  
Eval Source: CERS

Enforcement Action:  
Site ID: 390479  
Site Name: Conklin & Conklin, Inc  
Site Address: 34201 7TH ST  
Site City: UNION CITY  
Site Zip: 94587  
Enf Action Date: 08-07-2014  
Enf Action Type: Notice of Violation (Unified Program)  
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection  
Enf Action Notes: Not reported  
Enf Action Division: Union City Environmental Programs  
Enf Action Program: HW  
Enf Action Source: CERS

Coordinates:  
Site ID: 390479  
Facility Name: Conklin & Conklin, Inc  
Env Int Type Code: HMBP  
Program ID: 10003570  
Coord Name: Not reported  
Ref Point Type Desc: Unknown  
Latitude: 37.594622  
Longitude: -122.011601

Affiliation:  
Affiliation Type Desc: Environmental Contact  
Entity Name: JAMES CONKLIN

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CONKLIN & CONKLIN, INC (Continued)**

**S121772326**

Entity Title: Not reported  
Affiliation Address: 34201 SEVENTH ST.  
Affiliation City: UNION CITY  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner  
Entity Name: JAMES E CONKLIN  
Entity Title: Not reported  
Affiliation Address: 3630 MCNULTY WAY  
Affiliation City: REDWOOD CITY  
Affiliation State: CA  
Affiliation Country: United States  
Affiliation Zip: 94061  
Affiliation Phone: (650) 365-0527

Affiliation Type Desc: Operator  
Entity Name: CONKLIN & CONKLIN INC.  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: (510) 489-5500

Affiliation Type Desc: Parent Corporation  
Entity Name: Conklin & Conklin, Inc.  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Document Preparer  
Entity Name: JAMES CONKLIN  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address  
Entity Name: Mailing Address  
Entity Title: Not reported  
Affiliation Address: 34201 SEVENTH ST.  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CONKLIN & CONKLIN, INC (Continued)**

**S121772326**

Affiliation Type Desc: Identification Signer  
Entity Name: JAMES CONKLIN  
Entity Title: PRESIDENT  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: CUPA District  
Entity Name: Union City Environmental Programs  
Entity Title: Not reported  
Affiliation Address: 34009 Alvarado-Niles Road  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: (510) 675-5360

Affiliation Type Desc: Property Owner  
Entity Name: JAMES CONKLIN  
Entity Title: Not reported  
Affiliation Address: 3630 MCNULTY WAY  
Affiliation City: REDWOOD CITY  
Affiliation State: CA  
Affiliation Country: United States  
Affiliation Zip: 94061  
Affiliation Phone: (650) 365-0527

**CERS TANKS:**

Site ID: 390479  
CERS ID: 10003570  
Site Name: CONKLIN & CONKLIN, INC  
CERS Description: Chemical Storage Facilities

**Violations:**

Site ID: 390479  
Site Name: Conklin & Conklin, Inc  
Violation Date: 08-07-2014  
Citation: 40 CFR 1 265.173 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.173

Violation Description: Failure to properly close hazardous waste containers when not in active use.

Violation Notes: Returned to compliance on 08/07/2014.

Violation Division: Union City Environmental Programs

Violation Program: HW

Violation Source: CERS

Site ID: 390479  
Site Name: Conklin & Conklin, Inc  
Violation Date: 06-28-2018  
Citation: HSC 6.95 25508.2 - California Health and Safety Code, Chapter 6.95, Section(s) 25508.2

Violation Description: Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CONKLIN & CONKLIN, INC (Continued)**

**S121772326**

Violation Notes: date.  
Not reported  
Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 390479  
Site Name: Conklin & Conklin, Inc  
Violation Date: 08-07-2014  
Citation: 22 CCR 12 66262.23(a)(4) - California Code of Regulations, Title 22,  
Chapter 12, Section(s) 66262.23(a)(4)  
Violation Description: Failure to send hazardous waste manifest copies to DTSC.  
Violation Notes: Returned to compliance on 11/13/2015.  
Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Evaluation:  
Eval General Type: Compliance Evaluation Inspection  
Eval Date: 06-12-2018  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Not reported  
Eval Division: Union City Environmental Programs  
Eval Program: HMRRP  
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 08-07-2014  
Violations Found: No  
Eval Type: Routine done by local agency  
Eval Notes: Not reported  
Eval Division: Union City Environmental Programs  
Eval Program: HMRRP  
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 06-12-2018  
Violations Found: No  
Eval Type: Routine done by local agency  
Eval Notes: Electronic Signature Not Captured  
Eval Division: Union City Environmental Programs  
Eval Program: HW  
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 08-07-2014  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Not reported  
Eval Division: Union City Environmental Programs  
Eval Program: HW  
Eval Source: CERS

Enforcement Action:  
Site ID: 390479

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CONKLIN & CONKLIN, INC (Continued)**

**S121772326**

Site Name: Conklin & Conklin, Inc  
Site Address: 34201 7TH ST  
Site City: UNION CITY  
Site Zip: 94587  
Enf Action Date: 08-07-2014  
Enf Action Type: Notice of Violation (Unified Program)  
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection  
Enf Action Notes: Not reported  
Enf Action Division: Union City Environmental Programs  
Enf Action Program: HW  
Enf Action Source: CERS

Coordinates:

Site ID: 390479  
Facility Name: Conklin & Conklin, Inc  
Env Int Type Code: HMBP  
Program ID: 10003570  
Coord Name: Not reported  
Ref Point Type Desc: Unknown  
Latitude: 37.594622  
Longitude: -122.011601

Affiliation:

Affiliation Type Desc: Environmental Contact  
Entity Name: JAMES CONKLIN  
Entity Title: Not reported  
Affiliation Address: 34201 SEVENTH ST.  
Affiliation City: UNION CITY  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner  
Entity Name: JAMES E CONKLIN  
Entity Title: Not reported  
Affiliation Address: 3630 MCNULTY WAY  
Affiliation City: REDWOOD CITY  
Affiliation State: CA  
Affiliation Country: United States  
Affiliation Zip: 94061  
Affiliation Phone: (650) 365-0527

Affiliation Type Desc: Operator  
Entity Name: CONKLIN & CONKLIN INC.  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: (510) 489-5500

Affiliation Type Desc: Parent Corporation  
Entity Name: Conklin & Conklin, Inc.  
Entity Title: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CONKLIN & CONKLIN, INC (Continued)**

**S121772326**

Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Document Preparer  
Entity Name: JAMES CONKLIN  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address  
Entity Name: Mailing Address  
Entity Title: Not reported  
Affiliation Address: 34201 SEVENTH ST.  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: Not reported

Affiliation Type Desc: Identification Signer  
Entity Name: JAMES CONKLIN  
Entity Title: PRESIDENT  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: CUPA District  
Entity Name: Union City Environmental Programs  
Entity Title: Not reported  
Affiliation Address: 34009 Alvarado-Niles Road  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: (510) 675-5360

Affiliation Type Desc: Property Owner  
Entity Name: JAMES CONKLIN  
Entity Title: Not reported  
Affiliation Address: 3630 MCNULTY WAY  
Affiliation City: REDWOOD CITY  
Affiliation State: CA  
Affiliation Country: United States  
Affiliation Zip: 94061  
Affiliation Phone: (650) 365-0527



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

L68  
ESE  
1/8-1/4  
0.141 mi.  
743 ft.

CASCADE STEEL COMPANY  
34200 7TH ST  
UNION CITY, CA 94587  
Site 2 of 2 in cluster L

LUST S102426391  
HIST CORTESE N/A  
CERS

Relative:  
Lower  
Actual:  
57 ft.

LUST:  
Lead Agency: ALAMEDA COUNTY WATER DISTRICT  
Case Type: LUST Cleanup Site  
Geo Track: [http://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=T0600100264](http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600100264)  
Global Id: T0600100264  
Latitude: 37.5963048  
Longitude: -122.0133473  
Status: Completed - Case Closed  
Status Date: 05/06/1991  
Case Worker: Not reported  
RB Case Number: 01-0284  
Local Agency: Not reported  
File Location: Not reported  
Local Case Number: 0288  
Potential Media Affect: Soil  
Potential Contaminants of Concern: Gasoline  
Site History: Not reported

LUST:  
Global Id: T0600100264  
Contact Type: Regional Board Caseworker  
Contact Name: Regional Water Board  
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)  
Address: 1515 CLAY ST SUITE 1400  
City: OAKLAND  
Email: Not reported  
Phone Number: Not reported

LUST:  
Global Id: T0600100264  
Action Type: Other  
Date: 06/11/1986  
Action: Leak Reported

Global Id: T0600100264  
Action Type: Other  
Date: 06/11/1986  
Action: Leak Discovery

Global Id: T0600100264  
Action Type: Other  
Date: 06/11/1986  
Action: Leak Stopped

Global Id: T0600100264  
Action Type: RESPONSE  
Date: 04/02/1991  
Action: Correspondence

LUST:  
Global Id: T0600100264  
Status: Completed - Case Closed  
Status Date: 05/06/1991

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CASCADE STEEL COMPANY (Continued)**

**S102426391**

Global Id: T0600100264  
Status: Open - Case Begin Date  
Status Date: 06/11/1986

Global Id: T0600100264  
Status: Open - Site Assessment  
Status Date: 09/05/1990

**LUST REG 2:**

Region: 2  
Facility Id: 01-0284  
Facility Status: Case Closed  
Case Number: 0288  
How Discovered: Tank Closure  
Leak Cause: Structure Failure  
Leak Source: Tank  
Date Leak Confirmed: Not reported  
Oversight Program: LUST  
Prelim. Site Assessment Workplan Submitted: Not reported  
Preliminary Site Assessment Began: 9/5/1990  
Pollution Characterization Began: Not reported  
Pollution Remediation Plan Submitted: Not reported  
Date Remediation Action Underway: Not reported  
Date Post Remedial Action Monitoring Began: Not reported

**HIST CORTESE:**

Region: CORTESE  
Facility County Code: 1  
Reg By: LTNKA  
Reg Id: 01-0284

**CERS TANKS:**

Site ID: 196108  
CERS ID: T0600100264  
Site Name: CASCADE STEEL COMPANY  
CERS Description: Leaking Underground Storage Tank Cleanup Site

**Affiliation:**

Affiliation Type Desc: Regional Board Caseworker  
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)  
Entity Title: Not reported  
Affiliation Address: 1515 CLAY ST SUITE 1400  
Affiliation City: OAKLAND  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

69  
SE  
1/8-1/4  
0.155 mi.  
816 ft.

PG&E TRANSMISSION RIGHT OF WAY - UNION CITY  
1 ZWISSIG WAY  
UNION CITY, CA 94587

CPS-SLIC  
DEED  
CERS  
S113482421  
N/A

Relative:  
Lower  
Actual:  
54 ft.

CPS-SLIC:  
Site Name: PG&E TRANSMISSION RIGHT OF WAY - UNION CITY  
Region: STATE  
Facility Status: **Completed - Case Closed**  
Status Date: 04/11/2013  
Global Id: T10000004691  
Lead Agency: SAN FRANCISCO BAY RWQCB (REGION 2)  
Lead Agency Case Number: Not reported  
Latitude: 37.5926174  
Longitude: -122.012344  
Case Type: Cleanup Program Site  
Case Worker: MB  
Local Agency: Not reported  
RB Case Number: Not reported  
File Location: Regional Board  
Potential Media Affected: Not reported  
Potential Contaminants of Concern: Arsenic, Lead, Nickel, Other Metal  
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

DEED:

Envirostor ID: T10000004691  
Area: Not reported  
Sub Area: Not reported  
Site Type: SLIC  
Status: COMPLETED - CASE CLOSED  
Agency: SWRCB  
Covenant Uploaded: Y  
Deed Date(s): 10/02/2013  
File Name: Geotracker Land Use/Deed Restrictions

CERS TANKS:

Site ID: 225430  
CERS ID: T10000004691  
Site Name: PG&E TRANSMISSION RIGHT OF WAY - UNION CITY  
CERS Description: Cleanup Program Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker  
Entity Name: MARGARETE BETH - SAN FRANCISCO BAY RWQCB (REGION 2)  
Entity Title: Not reported  
Affiliation Address: 1515 Clay Street, 14th Floor  
Affiliation City: OAKLAND  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: 5106222338

MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Site

Database(s)

EDR ID Number  
EPA ID Number

**M70**  
**ESE**  
**1/8-1/4**  
**0.196 mi.**  
**1033 ft.**

**SHEEDY HOIST**  
**34301 7TH ST**  
**UNION CITY, CA 94587**

**CERS HAZ WASTE**  
**HAZNET**  
**CERS**

**S113080174**  
**N/A**

**Site 1 of 2 in cluster M**

**Relative:**  
**Lower**  
**Actual:**  
**56 ft.**

CERS HAZ WASTE:  
Site ID: 402039  
CERS ID: 10003708  
CERS Description: Hazardous Waste Generator

Violations:

Site ID: 402039  
Site Name: Sheedy Hoist  
Violation Date: 07-31-2014  
Citation: 22 CCR 16 66266.130 - California Code of Regulations, Title 22, Chapter 16, Section(s) 66266.130  
Violation Description: Failure to properly handle, manage, label, and recycle used oil and fuel filters.  
Violation Notes: Returned to compliance on 12/03/2014.  
Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Site ID: 402039  
Site Name: Sheedy Hoist  
Violation Date: 08-16-2018  
Citation: 22 CCR 12 66262.12 - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.12  
Violation Description: Failure to obtain an Identification Number prior to treating, storing, disposing of, transporting or offering for transportation any hazardous waste.  
Violation Notes: Returned to compliance on 09/11/2018. OBSERVATION: The generator is using an inactive EPA ID number to manage hazardous waste. A hazardous waste generator shall not treat, store, dispose of, transport or offer for transportation, hazardous waste without an active EPA ID number. CORRECTIVE ACTION: Submit documentation to the CUPA demonstrating that you have obtained/reactivated an EPA ID number.  
Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Site ID: 402039  
Site Name: Sheedy Hoist  
Violation Date: 07-31-2014  
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)  
Violation Description: Failure to establish and electronically submit an adequate emergency response plan and procedures for a release or threatened release of a hazardous material.  
Violation Notes: Returned to compliance on 12/03/2014.  
Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 402039  
Site Name: Sheedy Hoist  
Violation Date: 08-16-2018  
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SHEEDY HOIST (Continued)**

**S113080174**

Violation Description: Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.

Violation Notes: Returned to compliance on 08/29/2018. OBSERVATION: The business failed to complete and electronically submit chemical inventory information for all reportable hazardous materials on site at or above reportable quantities. CORRECTIVE ACTION: Complete and electronically submit the chemical inventory information for all reportable hazardous materials on site at or above reportable quantities.

Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 402039  
Site Name: Sheedy Hoist  
Violation Date: 08-16-2018  
Citation: HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple

Violation Description: Business Plan Program - Operations/Maintenance - General  
Violation Notes: Returned to compliance on 08/29/2018. OBSERVATION: The business failed to properly maintain declared emergency equipment: First aid kit and eye wash solution. CORRECTIVE ACTION: Ensure that all emergency response equipment is in good working order and not expired.

Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 402039  
Site Name: Sheedy Hoist  
Violation Date: 07-31-2014  
Citation: 22 CCR 15 66265.16 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.16

Violation Description: Failure to provide employees within the first six months after the date of their employment, or assignment to the facility, or to work unsupervised, or to a new position at a facility with hazardous waste training to ensure employees are competent in the following areas: hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed, emergency response and emergency equipment, and procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment. In addition, the owner/operator shall ensure facility personnel take part in an annual review of the initial training and training records training records on current personnel shall be kept until closure of the facility. Training records on former employees shall be kept for at least three years from the date the employee last worked at the facility. The records shall include the following: the job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job; a written job description for each position, duties of facility personnel assigned to each position, and a written description of the type and amount of both introductory and continuing training that will be given to each person filling a position.

Violation Notes: Returned to compliance on 12/03/2014.  
Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SHEEDY HOIST (Continued)**

**S113080174**

Site ID: 402039  
Site Name: Sheedy Hoist  
Violation Date: 07-31-2014  
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)  
Violation Description: Failure to establish and electronically submit an adequate training program in safety procedures in the event of a release or threatened release of a hazardous material.  
Violation Notes: Returned to compliance on 12/03/2014.  
Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 402039  
Site Name: Sheedy Hoist  
Violation Date: 07-31-2014  
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)  
Violation Description: Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.  
Violation Notes: Returned to compliance on 07/31/2014.  
Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 402039  
Site Name: Sheedy Hoist  
Violation Date: 08-16-2018  
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)  
Violation Description: Failure to complete and electronically submit the Business Activities Page and/or Business Owner Operator Identification Page.  
Violation Notes: Returned to compliance on 08/29/2018. OBSERVATION: The business failed to update business plan within 30 days when one of the following occurs: Personnel change - Primary and secondary emergency contacts and environmental contacts are incorrect. CORRECTIVE ACTION: Update all submittal elements effected by the change(s) and electronically submit the update within 30 days.  
Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 402039  
Site Name: Sheedy Hoist  
Violation Date: 07-31-2014  
Citation: 22 CCR 12 66262.34(d) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(d)  
Violation Description: Failure to dispose of hazardous waste within 180 days (or 270 if waste is transported over 200 miles) for the generator who generates less than 1000 kilogram per month, but more than 100 kilograms per month.  
Violation Notes: Returned to compliance on 12/03/2014.  
Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SHEEDY HOIST (Continued)**

**S113080174**

Evaluation:

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 07-31-2014  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Not reported  
Eval Division: Union City Environmental Programs  
Eval Program: HMRRP  
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 07-31-2014  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Not reported  
Eval Division: Union City Environmental Programs  
Eval Program: HW  
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 08-14-2018  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Electronic signature not captured  
Eval Division: Union City Environmental Programs  
Eval Program: HMRRP  
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 08-14-2018  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Electronic signature not captured  
Eval Division: Union City Environmental Programs  
Eval Program: HW  
Eval Source: CERS

Enforcement Action:

Site ID: 402039  
Site Name: Sheedy Hoist  
Site Address: 34301 7TH ST  
Site City: UNION CITY  
Site Zip: 94587  
Enf Action Date: 07-31-2014  
Enf Action Type: Notice of Violation (Unified Program)  
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection  
Enf Action Notes: Not reported  
Enf Action Division: Union City Environmental Programs  
Enf Action Program: HMRRP  
Enf Action Source: CERS

Site ID: 402039  
Site Name: Sheedy Hoist  
Site Address: 34301 7TH ST  
Site City: UNION CITY  
Site Zip: 94587

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SHEEDY HOIST (Continued)**

**S113080174**

Enf Action Date: 07-31-2014  
Enf Action Type: Notice of Violation (Unified Program)  
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection  
Enf Action Notes: Not reported  
Enf Action Division: Union City Environmental Programs  
Enf Action Program: HW  
Enf Action Source: CERS

Coordinates:

Site ID: 402039  
Facility Name: Sheedy Hoist  
Env Int Type Code: HMBP  
Program ID: 10003708  
Coord Name: Not reported  
Ref Point Type Desc: Unknown  
Latitude: 37.593071  
Longitude: -122.010643

Affiliation:

Affiliation Type Desc: Identification Signer  
Entity Name: Dominic DeMartini  
Entity Title: Director of Safety and Risk Mgr.  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Property Owner  
Entity Name: 34301 Seventh Street Partnership  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: San Francisco  
Affiliation State: CA  
Affiliation Country: United States  
Affiliation Zip: 94107  
Affiliation Phone: (415) 648-7171

Affiliation Type Desc: Legal Owner  
Entity Name: Richard Battaini  
Entity Title: Not reported  
Affiliation Address: 1215 Michigan Street  
Affiliation City: San Francisco,  
Affiliation State: CA  
Affiliation Country: United States  
Affiliation Zip: 94107  
Affiliation Phone: (415) 648-7171

Affiliation Type Desc: Operator  
Entity Name: Cambiz Gholamshahi  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SHEEDY HOIST (Continued)**

**S113080174**

Affiliation Zip: Not reported  
Affiliation Phone: (510) 691-1348

Affiliation Type Desc: Environmental Contact  
Entity Name: Dominic DeMartini  
Entity Title: Not reported  
Affiliation Address: 1215 Michigan st.  
Affiliation City: San Francisco  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94107  
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address  
Entity Name: Mailing Address  
Entity Title: Not reported  
Affiliation Address: 34301 7th Avenue  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: Not reported

Affiliation Type Desc: CUPA District  
Entity Name: Union City Environmental Programs  
Entity Title: Not reported  
Affiliation Address: 34009 Alvarado-Niles Road  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: (510) 675-5360

Affiliation Type Desc: Document Preparer  
Entity Name: Dominic DeMartini  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Parent Corporation  
Entity Name: Sheedy Hoist Co.  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

HAZNET:  
Site Name: SHEEDY HOIST  
Year: 2015

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SHEEDY HOIST (Continued)**

**S113080174**

GEPaid: CAL000145898  
Contact: LORI MACARTNEY  
Telephone: 5104417300  
Mailing Name: Not reported  
Mailing Address: 34301 7TH ST  
Mailing City,St,Zip: UNION CITY, CA 945873653  
Gen County: Alameda  
TSD EPA ID: CAD980887418  
TSD County: Alameda  
Tons: 2.4186  
CA Waste Code: 222-  
Method: H141-  
Facility County: Alameda

Site Name: SHEEDY HOIST  
Year: 2012  
GEPaid: CAL000145898  
Contact: LORI MACARTNEY  
Telephone: 5104417300  
Mailing Name: Not reported  
Mailing Address: 34301 7TH ST  
Mailing City,St,Zip: UNION CITY, CA 945873653  
Gen County: Alameda  
TSD EPA ID: CAD980887418  
TSD County: Alameda  
Tons: 4.2534  
CA Waste Code: -  
Method: H135-  
Facility County: Alameda

Site Name: SHEEDY HOIST  
Year: 2009  
GEPaid: CAL000145898  
Contact: LORI MACARTNEY  
Telephone: 5104417300  
Mailing Name: Not reported  
Mailing Address: 34301 7TH ST  
Mailing City,St,Zip: UNION CITY, CA 945873653  
Gen County: Not reported  
TSD EPA ID: CAD980887418  
TSD County: Not reported  
Tons: 3.0441  
CA Waste Code: 223-  
Method: H135-  
Facility County: Alameda

Site Name: SHEEDY HOIST  
Year: 2007  
GEPaid: CAL000145898  
Contact: JAME BUTLER, GEN MGR  
Telephone: 5104417300  
Mailing Name: Not reported  
Mailing Address: PO BOX 77004  
Mailing City,St,Zip: SAN FRANCISCO, CA 941070000  
Gen County: Not reported  
TSD EPA ID: TXD077603371  
TSD County: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SHEEDY HOIST (Continued)**

**S113080174**

Tons: 0.1  
CA Waste Code: 213-  
Method: H061-  
Facility County: Alameda

Site Name: SHEEDY HOIST  
Year: 2006  
GEPaid: CAL000145898  
Contact: DAVID PASKI VP GEN MGR  
Telephone: 5104417300  
Mailing Name: Not reported  
Mailing Address: PO BOX 77004  
Mailing City,St,Zip: SAN FRANCISCO, CA 941070000  
Gen County: Not reported  
TSD EPA ID: CAD053044053  
TSD County: Not reported  
Tons: 0.09  
CA Waste Code: 134-  
Method: H01-  
Facility County: Alameda

[Click this hyperlink](#) while viewing on your computer to access 12 additional CA\_HAZNET: record(s) in the EDR Site Report.

**CERS TANKS:**

Site ID: 402039  
CERS ID: 10003708  
Site Name: SHEEDY HOIST  
CERS Description: Chemical Storage Facilities

**Violations:**

Site ID: 402039  
Site Name: Sheedy Hoist  
Violation Date: 07-31-2014  
Citation: 22 CCR 16 66266.130 - California Code of Regulations, Title 22, Chapter 16, Section(s) 66266.130  
Violation Description: Failure to properly handle, manage, label, and recycle used oil and fuel filters.  
Violation Notes: Returned to compliance on 12/03/2014.  
Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Site ID: 402039  
Site Name: Sheedy Hoist  
Violation Date: 08-16-2018  
Citation: 22 CCR 12 66262.12 - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.12  
Violation Description: Failure to obtain an Identification Number prior to treating, storing, disposing of, transporting or offering for transportation any hazardous waste.  
Violation Notes: Returned to compliance on 09/11/2018. OBSERVATION: The generator is using an inactive EPA ID number to manage hazardous waste. A hazardous waste generator shall not treat, store, dispose of, transport or offer for transportation, hazardous waste without an active EPA ID number. CORRECTIVE ACTION: Submit documentation to the CUPA demonstrating that you have obtained/reactivated an EPA ID number.

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SHEEDY HOIST (Continued)**

**S113080174**

Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Site ID: 402039  
Site Name: Sheedy Hoist  
Violation Date: 07-31-2014  
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)  
Violation Description: Failure to establish and electronically submit an adequate emergency response plan and procedures for a release or threatened release of a hazardous material.  
Violation Notes: Returned to compliance on 12/03/2014.  
Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 402039  
Site Name: Sheedy Hoist  
Violation Date: 08-16-2018  
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)  
Violation Description: Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.  
Violation Notes: Returned to compliance on 08/29/2018. OBSERVATION: The business failed to complete and electronically submit chemical inventory information for all reportable hazardous materials on site at or above reportable quantities. CORRECTIVE ACTION: Complete and electronically submit the chemical inventory information for all reportable hazardous materials on site at or above reportable quantities.  
Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 402039  
Site Name: Sheedy Hoist  
Violation Date: 08-16-2018  
Citation: HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple  
Violation Description: Business Plan Program - Operations/Maintenance - General  
Violation Notes: Returned to compliance on 08/29/2018. OBSERVATION: The business failed to properly maintain declared emergency equipment: First aid kit and eye wash solution. CORRECTIVE ACTION: Ensure that all emergency response equipment is in good working order and not expired.  
Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 402039  
Site Name: Sheedy Hoist  
Violation Date: 07-31-2014  
Citation: 22 CCR 15 66265.16 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.16  
Violation Description: Failure to provide employees within the first six months after the date of their employment, or assignment to the facility, or to work unsupervised, or to a new position at a facility with hazardous waste

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SHEEDY HOIST (Continued)**

**S113080174**

training to ensure employees are competent in the following areas: hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed, emergency response and emergency equipment, and procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment. In addition, the owner/operator shall ensure facility personnel take part in an annual review of the initial training and training records training records on current personnel shall be kept until closure of the facility. Training records on former employees shall be kept for at least three years from the date the employee last worked at the facility. The records shall include the following: the job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job; a written job description for each position, duties of facility personnel assigned to each position, and a written description of the type and amount of both introductory and continuing training that will be given to each person filling a position.

Violation Notes: Returned to compliance on 12/03/2014.  
Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Site ID: 402039  
Site Name: Sheedy Hoist  
Violation Date: 07-31-2014  
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)

Violation Description: Failure to establish and electronically submit an adequate training program in safety procedures in the event of a release or threatened release of a hazardous material.

Violation Notes: Returned to compliance on 12/03/2014.  
Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 402039  
Site Name: Sheedy Hoist  
Violation Date: 07-31-2014  
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)

Violation Description: Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.

Violation Notes: Returned to compliance on 07/31/2014.  
Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 402039  
Site Name: Sheedy Hoist  
Violation Date: 08-16-2018  
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)

Violation Description: Failure to complete and electronically submit the Business Activities Page and/or Business Owner Operator Identification Page.

Violation Notes: Returned to compliance on 08/29/2018. OBSERVATION: The business failed to update business plan within 30 days when one of the following

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SHEEDY HOIST (Continued)**

**S113080174**

occurs: Personnel change - Primary and secondary emergency contacts and environmental contacts are incorrect. CORRECTIVE ACTION: Update all submittal elements effected by the change(s) and electronically submit the update within 30 days.

Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 402039  
Site Name: Sheedy Hoist  
Violation Date: 07-31-2014  
Citation: 22 CCR 12 66262.34(d) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(d)  
Violation Description: Failure to dispose of hazardous waste within 180 days (or 270 if waste is transported over 200 miles) for the generator who generates less than 1000 kilogram per month, but more than 100 kilograms per month.  
Violation Notes: Returned to compliance on 12/03/2014.  
Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Evaluation:  
Eval General Type: Compliance Evaluation Inspection  
Eval Date: 07-31-2014  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Not reported  
Eval Division: Union City Environmental Programs  
Eval Program: HMRRP  
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 07-31-2014  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Not reported  
Eval Division: Union City Environmental Programs  
Eval Program: HW  
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 08-14-2018  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Electronic signature not captured  
Eval Division: Union City Environmental Programs  
Eval Program: HMRRP  
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 08-14-2018  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Electronic signature not captured  
Eval Division: Union City Environmental Programs  
Eval Program: HW  
Eval Source: CERS

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SHEEDY HOIST (Continued)**

**S113080174**

Enforcement Action:

Site ID: 402039  
Site Name: Sheedy Hoist  
Site Address: 34301 7TH ST  
Site City: UNION CITY  
Site Zip: 94587  
Enf Action Date: 07-31-2014  
Enf Action Type: Notice of Violation (Unified Program)  
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection  
Enf Action Notes: Not reported  
Enf Action Division: Union City Environmental Programs  
Enf Action Program: HMRRP  
Enf Action Source: CERS

Site ID: 402039  
Site Name: Sheedy Hoist  
Site Address: 34301 7TH ST  
Site City: UNION CITY  
Site Zip: 94587  
Enf Action Date: 07-31-2014  
Enf Action Type: Notice of Violation (Unified Program)  
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection  
Enf Action Notes: Not reported  
Enf Action Division: Union City Environmental Programs  
Enf Action Program: HW  
Enf Action Source: CERS

Coordinates:

Site ID: 402039  
Facility Name: Sheedy Hoist  
Env Int Type Code: HMBP  
Program ID: 10003708  
Coord Name: Not reported  
Ref Point Type Desc: Unknown  
Latitude: 37.593071  
Longitude: -122.010643

Affiliation:

Affiliation Type Desc: Identification Signer  
Entity Name: Dominic DeMartini  
Entity Title: Director of Safety and Risk Mgr.  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Property Owner  
Entity Name: 34301 Seventh Street Partnership  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: San Francisco  
Affiliation State: CA  
Affiliation Country: United States  
Affiliation Zip: 94107

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SHEEDY HOIST (Continued)**

**S113080174**

Affiliation Phone: (415) 648-7171

Affiliation Type Desc: Legal Owner  
Entity Name: Richard Battaini  
Entity Title: Not reported  
Affiliation Address: 1215 Michigan Street  
Affiliation City: San Francisco,  
Affiliation State: CA  
Affiliation Country: United States  
Affiliation Zip: 94107  
Affiliation Phone: (415) 648-7171

Affiliation Type Desc: Operator  
Entity Name: Cambiz Gholamshahi  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: (510) 691-1348

Affiliation Type Desc: Environmental Contact  
Entity Name: Dominic DeMartini  
Entity Title: Not reported  
Affiliation Address: 1215 Michigan st.  
Affiliation City: San Francisco  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94107  
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address  
Entity Name: Mailing Address  
Entity Title: Not reported  
Affiliation Address: 34301 7th Avenue  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: Not reported

Affiliation Type Desc: CUPA District  
Entity Name: Union City Environmental Programs  
Entity Title: Not reported  
Affiliation Address: 34009 Alvarado-Niles Road  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: (510) 675-5360

Affiliation Type Desc: Document Preparer  
Entity Name: Dominic DeMartini  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SHEEDY HOIST (Continued)**

**S113080174**

Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Parent Corporation  
Entity Name: Sheedy Hoist Co.  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

**M71**  
**ESE**  
**1/8-1/4**  
**0.196 mi.**  
**1033 ft.**

**SHEEDY HOIST**  
**34301 7TH ST**  
**UNION CITY, CA 94587**  
**Site 2 of 2 in cluster M**

**RCRA NonGen / NLR** **1024794106**  
**CAL000145898**

**Relative:**  
**Lower**  
**Actual:**  
**56 ft.**

RCRA NonGen / NLR:  
Date form received by agency: 08/06/1997  
Facility name: SHEEDY HOIST  
Facility address: 34301 7TH ST  
UNION CITY, CA 94587-3653  
EPA ID: CAL000145898  
Contact: LORI MACARTNEY  
Contact address: 34301 7TH ST  
UNION CITY, CA 94587  
Contact country: Not reported  
Contact telephone: 510-441-7300  
Contact email: LMACARTNEY@SHEEDYHOIST.COM  
EPA Region: 09  
Classification: Non-Generator  
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:  
Owner/operator name: SHEEDY DRAYAGE  
Owner/operator address: 1215 MICHIGAN ST  
SAN FRANCISCO, CA 94107  
Owner/operator country: Not reported  
Owner/operator telephone: 415-648-7171  
Owner/operator email: Not reported  
Owner/operator fax: Not reported  
Owner/operator extension: Not reported  
Legal status: Other  
Owner/Operator Type: Owner  
Owner/Op start date: Not reported  
Owner/Op end date: Not reported  
Owner/operator name: LORI MACARTNEY  
Owner/operator address: 34301 7TH ST  
UNION CITY, CA 94587  
Owner/operator country: Not reported  
Owner/operator telephone: 510-441-7300

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**SHEEDY HOIST (Continued)**

**1024794106**

Owner/operator email: Not reported  
 Owner/operator fax: Not reported  
 Owner/operator extension: Not reported  
 Legal status: Other  
 Owner/Operator Type: Operator  
 Owner/Op start date: Not reported  
 Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No  
 Mixed waste (haz. and radioactive): No  
 Recycler of hazardous waste: No  
 Transporter of hazardous waste: Yes  
 Treater, storer or disposer of HW: No  
 Underground injection activity: No  
 On-site burner exemption: No  
 Furnace exemption: No  
 Used oil fuel burner: No  
 Used oil processor: No  
 User oil refiner: No  
 Used oil fuel marketer to burner: No  
 Used oil Specification marketer: No  
 Used oil transfer facility: No  
 Used oil transporter: No

Violation Status: No violations found

**N72**  
**WNW**  
**1/8-1/4**  
**0.221 mi.**  
**1168 ft.**

**ESCUTIA'S AUTO**  
**967 H ST**  
**UNION CITY, CA 94587**  
**Site 1 of 5 in cluster N**

**CERS HAZ WASTE** **S123499495**  
**CERS** **N/A**

**Relative:**  
**Higher**  
**Actual:**  
**68 ft.**

CERS HAZ WASTE:  
 Site ID: 114872  
 CERS ID: 10003330  
 CERS Description: Hazardous Waste Generator

Violations:

Site ID: 114872  
 Site Name: Escutia?s Auto  
 Violation Date: 09-29-2016  
 Citation: HSC 6.95 25508.2 - California Health and Safety Code, Chapter 6.95, Section(s) 25508.2  
 Violation Description: Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.  
 Violation Notes: Returned to compliance on 09/29/2016. OBSERVATION: The facility has not annually reviewed and certified that the business plan is complete, accurate, and up-to-date. CERS was last submitted on 6/13/2014. CORRECTIVE ACTION: Review, revise, and certify the business plan electronically in the California Environmental Reporting System (CERS) within 30 days.  
 Violation Division: Union City Environmental Programs  
 Violation Program: HMRRP  
 Violation Source: CERS

Site ID: 114872  
 Site Name: Escutia?s Auto

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ESCUTIA'S AUTO (Continued)**

**S123499495**

Violation Date: 09-29-2016  
Citation: HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple  
Violation Description: Hazardous Waste Generator Program - Training - General  
Violation Notes: Returned to compliance on 08/23/2017. OBSERVATION: This facility's EPA ID number is inactive. A hazardous waste generator shall not treat, store, dispose of, transport or offer for transportation, hazardous waste without an EPA ID number. The EPA ID number has been inactive since CORRECTIVE ACTION: Immediately contact DTSC and reactivate your EPA ID number and submit evidence to the CUPA within 30 days.  
\*\*\*\*\* <http://www.dtsc.ca.gov/IDManifest/>  
Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Evaluation:  
Eval General Type: Compliance Evaluation Inspection  
Eval Date: 09-29-2016  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Routine inspection, met with Gabe Escutia, Owner. CERS was last updated 6/13/2014  
Eval Division: Union City Environmental Programs  
Eval Program: HMRRP  
Eval Source: CERS  
  
Eval General Type: Compliance Evaluation Inspection  
Eval Date: 09-29-2016  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Routine inspection of the facility. Met with Gabe Escutia, Owner EPA ID: CAL000148463 Name: ESCUTIA'S AUTO REPAIR Status: INACTIVE Inactive Date: 2008-06-30 Contact: FROYLAN ESCUTIA County: ALAMEDA Record Entered: 1994-10-24 Last updated: 2009-04-23 Since this facility generates more than 100 kg of waste per month, it will be considered a Small Quantity Generator instead of a Conditionally Exempt Small Quantity Generator.  
Eval Division: Union City Environmental Programs  
Eval Program: HW  
Eval Source: CERS

Enforcement Action:  
Site ID: 114872  
Site Name: Escutia's Auto  
Site Address: 967 H ST  
Site City: UNION CITY  
Site Zip: 94587  
Enf Action Date: 09-29-2016  
Enf Action Type: Notice of Violation (Unified Program)  
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection  
Enf Action Notes: Not reported  
Enf Action Division: Union City Environmental Programs  
Enf Action Program: HMRRP  
Enf Action Source: CERS

Site ID: 114872

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ESCUTIA'S AUTO (Continued)**

**S123499495**

Site Name: Escutia?s Auto  
Site Address: 967 H ST  
Site City: UNION CITY  
Site Zip: 94587  
Enf Action Date: 09-29-2016  
Enf Action Type: Notice of Violation (Unified Program)  
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection  
Enf Action Notes: Not reported  
Enf Action Division: Union City Environmental Programs  
Enf Action Program: HW  
Enf Action Source: CERS

Coordinates:  
Site ID: 114872  
Facility Name: Escutia?s Auto  
Env Int Type Code: HWG  
Program ID: 10003330  
Coord Name: Not reported  
Ref Point Type Desc: Unknown  
Latitude: 37.597187  
Longitude: -122.021957

Affiliation:  
Affiliation Type Desc: Environmental Contact  
Entity Name: Gabriel Escutia  
Entity Title: Not reported  
Affiliation Address: 967 H Street  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: Not reported

Affiliation Type Desc: Operator  
Entity Name: Gabriel Escutia  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: (510) 489-7890

Affiliation Type Desc: Facility Mailing Address  
Entity Name: Mailing Address  
Entity Title: Not reported  
Affiliation Address: 967 H Street  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: Not reported

Affiliation Type Desc: Identification Signer  
Entity Name: Gabriel Escutia  
Entity Title: Manager

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ESCUTIA'S AUTO (Continued)**

**S123499495**

Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Document Preparer  
Entity Name: same  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner  
Entity Name: Sohia Escutia  
Entity Title: Not reported  
Affiliation Address: 967 H Street  
Affiliation City: Union city  
Affiliation State: CA  
Affiliation Country: United States  
Affiliation Zip: 94587  
Affiliation Phone: (510) 489-7890

Affiliation Type Desc: Parent Corporation  
Entity Name: Escutia?s Auto  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Property Owner  
Entity Name: Sophia Escutia  
Entity Title: Not reported  
Affiliation Address: 967 H Street  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: United States  
Affiliation Zip: 94587  
Affiliation Phone: (510) 489-7890

Affiliation Type Desc: CUPA District  
Entity Name: Union City Environmental Programs  
Entity Title: Not reported  
Affiliation Address: 34009 Alvarado-Niles Road  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: (510) 675-5360

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ESCUTIA?S AUTO (Continued)**

**S123499495**

CERS TANKS:

Site ID: 114872  
CERS ID: 10003330  
Site Name: ESCUTIA?S AUTO  
CERS Description: Chemical Storage Facilities

Violations:

Site ID: 114872  
Site Name: Escutia?s Auto  
Violation Date: 09-29-2016  
Citation: HSC 6.95 25508.2 - California Health and Safety Code, Chapter 6.95, Section(s) 25508.2

Violation Description: Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.

Violation Notes: Returned to compliance on 09/29/2016. OBSERVATION: The facility has not annually reviewed and certified that the business plan is complete, accurate, and up-to-date. CERS was last submitted on 6/13/2014. CORRECTIVE ACTION: Review, revise, and certify the business plan electronically in the California Environmental Reporting System (CERS) within 30 days.

Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 114872  
Site Name: Escutia?s Auto  
Violation Date: 09-29-2016  
Citation: HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple

Violation Description: Hazardous Waste Generator Program - Training - General  
Violation Notes: Returned to compliance on 08/23/2017. OBSERVATION: This facility?s EPA ID number is inactive. A hazardous waste generator shall not treat, store, dispose of, transport or offer for transportation, hazardous waste without an EPA ID number. The EPA ID number has been inactive since CORRECTIVE ACTION: Immediately contact DTSC and reactivate your EPA ID number and submit evidence to the CUPA within 30 days.  
\*\*\*\*\* <http://www.dtsc.ca.gov/IDManifest/>

Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Evaluation:

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 09-29-2016  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Routine inspection, met with Gabe Escutia, Owner. CERS was last updated 6/13/2014

Eval Division: Union City Environmental Programs  
Eval Program: HMRRP  
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 09-29-2016  
Violations Found: Yes  
Eval Type: Routine done by local agency

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ESCUTIA'S AUTO (Continued)**

**S123499495**

Eval Notes: Routine inspection of the facility. Met with Gabe Escutia, Owner EPA ID: CAL000148463 Name: ESCUTIA'S AUTO REPAIR Status: INACTIVE Inactive Date: 2008-06-30 Contact: FROYLAN ESCUTIA County: ALAMEDA Record Entered: 1994-10-24 Last updated: 2009-04-23 Since this facility generates more than 100 kg of waste per month, it will be considered a Small Quantity Geenrator instead of a Conditionally Exempt Small Quantity Generator.

Eval Division: Union City Environmental Programs  
Eval Program: HW  
Eval Source: CERS

Enforcement Action:  
Site ID: 114872  
Site Name: Escutia?s Auto  
Site Address: 967 H ST  
Site City: UNION CITY  
Site Zip: 94587  
Enf Action Date: 09-29-2016  
Enf Action Type: Notice of Violation (Unified Program)  
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection  
Enf Action Notes: Not reported  
Enf Action Division: Union City Environmental Programs  
Enf Action Program: HMRRP  
Enf Action Source: CERS

Site ID: 114872  
Site Name: Escutia?s Auto  
Site Address: 967 H ST  
Site City: UNION CITY  
Site Zip: 94587  
Enf Action Date: 09-29-2016  
Enf Action Type: Notice of Violation (Unified Program)  
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection  
Enf Action Notes: Not reported  
Enf Action Division: Union City Environmental Programs  
Enf Action Program: HW  
Enf Action Source: CERS

Coordinates:  
Site ID: 114872  
Facility Name: Escutia?s Auto  
Env Int Type Code: HWG  
Program ID: 10003330  
Coord Name: Not reported  
Ref Point Type Desc: Unknown  
Latitude: 37.597187  
Longitude: -122.021957

Affiliation:  
Affiliation Type Desc: Environmental Contact  
Entity Name: Gabriel Escutia  
Entity Title: Not reported  
Affiliation Address: 967 H Street  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ESCUTIA'S AUTO (Continued)**

**S123499495**

Affiliation Zip: 94587  
Affiliation Phone: Not reported

Affiliation Type Desc: Operator  
Entity Name: Gabriel Escutia  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: (510) 489-7890

Affiliation Type Desc: Facility Mailing Address  
Entity Name: Mailing Address  
Entity Title: Not reported  
Affiliation Address: 967 H Street  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: Not reported

Affiliation Type Desc: Identification Signer  
Entity Name: Gabriel Escutia  
Entity Title: Manager  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Document Preparer  
Entity Name: same  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner  
Entity Name: Sofia Escutia  
Entity Title: Not reported  
Affiliation Address: 967 H Street  
Affiliation City: Union city  
Affiliation State: CA  
Affiliation Country: United States  
Affiliation Zip: 94587  
Affiliation Phone: (510) 489-7890

Affiliation Type Desc: Parent Corporation  
Entity Name: Escutia's Auto  
Entity Title: Not reported  
Affiliation Address: Not reported



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ESCUZIA'S AUTO (Continued)**

**S123499495**

Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Property Owner  
Entity Name: Sophia Escutia  
Entity Title: Not reported  
Affiliation Address: 967 H Street  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: United States  
Affiliation Zip: 94587  
Affiliation Phone: (510) 489-7890

Affiliation Type Desc: CUPA District  
Entity Name: Union City Environmental Programs  
Entity Title: Not reported  
Affiliation Address: 34009 Alvarado-Niles Road  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: (510) 675-5360

**N73  
WNW  
1/8-1/4  
0.221 mi.  
1168 ft.**

**ESCUZIA'S AUTO REPAIR  
967 H ST  
UNION CITY, CA 94587  
Site 2 of 5 in cluster N**

**RCRA NonGen / NLR 1024794482  
CAL000148463**

**Relative:  
Higher  
Actual:  
68 ft.**

RCRA NonGen / NLR:  
Date form received by agency: 10/24/1994  
Facility name: ESCUTIA'S AUTO REPAIR  
Facility address: 967 H ST  
UNION CITY, CA 94587-0000  
EPA ID: CAL000148463  
Contact: GABRIEL ESCUTIA  
Contact address: 967 H ST  
UNION CITY, CA 94587-3364  
Contact country: Not reported  
Contact telephone: 510-489-7890  
Contact email: ESCUTIAAUTOREPAIR@HOTMAIL.COM  
EPA Region: 09  
Classification: Non-Generator  
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:  
Owner/operator name: FROYLAN ESCUTIA  
Owner/operator address: 967 H ST  
UNION CITY, CA 94587  
Owner/operator country: Not reported  
Owner/operator telephone: 510-489-7890  
Owner/operator email: Not reported  
Owner/operator fax: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ESCUTIA'S AUTO REPAIR (Continued)**

**1024794482**

Owner/operator extension: Not reported  
Legal status: Other  
Owner/Operator Type: Owner  
Owner/Op start date: Not reported  
Owner/Op end date: Not reported  
  
Owner/operator name: GABRIEL ESCUTIA  
Owner/operator address: 967 H ST  
UNION CITY, CA 94587  
  
Owner/operator country: Not reported  
Owner/operator telephone: 510-489-7890  
Owner/operator email: Not reported  
Owner/operator fax: Not reported  
Owner/operator extension: Not reported  
Legal status: Other  
Owner/Operator Type: Operator  
Owner/Op start date: Not reported  
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): No  
Recycler of hazardous waste: No  
Transporter of hazardous waste: Yes  
Treater, storer or disposer of HW: No  
Underground injection activity: No  
On-site burner exemption: No  
Furnace exemption: No  
Used oil fuel burner: No  
Used oil processor: No  
User oil refiner: No  
Used oil fuel marketer to burner: No  
Used oil Specification marketer: No  
Used oil transfer facility: No  
Used oil transporter: No

Violation Status: No violations found

**N74**  
**WNW**  
**1/8-1/4**  
**0.221 mi.**  
**1168 ft.**

**SCHANER LIBERTY STATION**  
**967 H ST**  
**UNION CITY, CA 94587**  
**Site 3 of 5 in cluster N**

**SWEEPS UST** **U001598741**  
**HIST UST** **N/A**

**Relative:**  
**Higher**

**Actual:**  
**68 ft.**  
SWEEPS UST:  
Status: Active  
Comp Number: 51797  
Number: 9  
Board Of Equalization: 44-001425  
Referral Date: 07-01-85  
Action Date: Not reported  
Created Date: 02-29-88  
Owner Tank Id: 1U  
SWRCB Tank Id: 01-011-051797-000001  
Tank Status: A  
Capacity: 4000  
Active Date: 07-01-85  
Tank Use: M.V. FUEL

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SCHANER LIBERTY STATION (Continued)**

**U001598741**

STG: P  
Content: REG UNLEADED  
Number Of Tanks: 2  
  
Status: Active  
Comp Number: 51797  
Number: 9  
Board Of Equalization: 44-001425  
Referral Date: 07-01-85  
Action Date: Not reported  
Created Date: 02-29-88  
Owner Tank Id: 2P  
SWRCB Tank Id: 01-011-051797-000002  
Tank Status: A  
Capacity: 4000  
Active Date: 07-01-85  
Tank Use: M.V. FUEL  
STG: P  
Content: REG UNLEADED  
Number Of Tanks: Not reported

**HIST UST:**

File Number: 00035E99  
URL: <http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00035E99.pdf>  
Region: STATE  
Facility ID: 00000051797  
Facility Type: Gas Station  
Other Type: Not reported  
Contact Name: C. SCHAUER  
Telephone: 4154897890  
Owner Name: CLARENCE G. SCHAUER  
Owner Address: 21120 DAWE AVE.  
Owner City,St,Zip: CASTRO VALLEY, CA 94546  
Total Tanks: 0002

Tank Num: 001  
Container Num: 1U  
Year Installed: 1950  
Tank Capacity: 00004000  
Tank Used for: PRODUCT  
Type of Fuel: UNLEADED  
Container Construction Thickness: Not reported  
Leak Detection: None

Tank Num: 002  
Container Num: 2P  
Year Installed: 1950  
Tank Capacity: 00004000  
Tank Used for: PRODUCT  
Type of Fuel: PREMIUM  
Container Construction Thickness: Not reported  
Leak Detection: None

Click here for Geo Tracker PDF:

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**N75**  
**WNW**  
**1/8-1/4**  
**0.221 mi.**  
**1168 ft.**

**LIBERTY STATION (ESCUTIA'S AUTO RPR)**  
**967 H STREET**  
**UNION CITY, CA 94587**

**LUST** **S106229845**  
**N/A**

**Site 4 of 5 in cluster N**

**Relative:**  
**Higher**  
**Actual:**  
**68 ft.**

**LUST REG 2:**  
 Region: 2  
 Facility Id: 01-0904  
 Facility Status: Remediation Plan  
 Case Number: 0146  
 How Discovered: Tank Closure  
 Leak Cause: Structure Failure  
 Leak Source: Tank  
 Date Leak Confirmed: Not reported  
 Oversight Program: LUST  
 Prelim. Site Assessment Wokplan Submitted: 9/16/1986  
 Preliminary Site Assessment Began: 4/4/1995  
 Pollution Characterization Began: 6/13/1995  
 Pollution Remediation Plan Submitted: 1/20/1998  
 Date Remediation Action Underway: Not reported  
 Date Post Remedial Action Monitoring Began: Not reported

**N76**  
**WNW**  
**1/8-1/4**  
**0.221 mi.**  
**1168 ft.**

**LIBERTY STATION ESCUTIA'S**  
**967 H**  
**UNION CITY, CA 94587**

**LUST** **S101293899**  
**HIST CORTESE** **N/A**  
**CERS**

**Site 5 of 5 in cluster N**

**Relative:**  
**Higher**  
**Actual:**  
**68 ft.**

**LUST:**  
 Lead Agency: SAN FRANCISCO BAY RWQCB (REGION 2)  
 Case Type: LUST Cleanup Site  
 Geo Track: [http://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=T0600100831](http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600100831)  
 Global Id: T0600100831  
 Latitude: 37.597186  
 Longitude: -122.021961  
 Status: Open - Remediation  
 Status Date: 09/15/2013  
 Case Worker: EC  
 RB Case Number: 01-0904  
 Local Agency: ALAMEDA COUNTY WATER DISTRICT  
 File Location: Not reported  
 Local Case Number: TT0146  
 Potential Media Affect: Other Groundwater (uses other than drinking water)  
 Potential Contaminants of Concern: Gasoline  
 Site History: The subject property (Site) is located on the northeast corner of H and 10th streets, and is occupied by Escutias Auto Repair. Two (2) 4,000-gallon single-walled underground storage tanks (USTs) for leaded and unleaded gasoline were removed from the site on March 25, 1993. Sampling results during tank removal indicated that the subsurface was impacted by petroleum hydrocarbons. Based on field observations, impacted soil was over-excavated beneath the tanks and product piping. Two 4,000-gallon single walled underground storage tanks (USTs) were previously located at the Site and were removed in March 1993. A total of approximately 200 cubic yards of excavated soil was removed to a class III landfill. Groundwater was not encountered during the tank removal or over-excavation. Well MW-2 was advanced through the backfill material of the former UST excavation. Samples collected from 25 feet bgs to 45 feet bgs reported concentrations of 2,200 mg/kg to 3,500 mg/kg of total extractable

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**LIBERTY STATION ESCUTIA'S (Continued)**

**S101293899**

hydrocarbons as gasoline (TPHg) in MW-2. In addition, samples collected between 40 feet bgs to 45 feet bgs reported 29 mg/kg to 76 mg/kg of benzene in MW-2, and 0.037 mg/kg to 1.8 mg/kg in MW-3, respectively.

LUST:

Global Id: T0600100831  
Contact Type: Local Agency Caseworker  
Contact Name: EILEEN CHEN  
Organization Name: ALAMEDA COUNTY WATER DISTRICT  
Address: 43885 SOUTH GRIMMER BLVD.  
City: FREMONT  
Email: eileen.chen@acwd.com  
Phone Number: Not reported

Global Id: T0600100831  
Contact Type: Regional Board Caseworker  
Contact Name: SIMERPREET MATHARU  
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)  
Address: 151 clay atreet  
City: OAKLAND  
Email: simerpreet.matharu@waterboards.ca.gov  
Phone Number: 5106222339

LUST:

Global Id: T0600100831  
Action Type: Other  
Date: 06/28/1984  
Action: Leak Reported

Global Id: T0600100831  
Action Type: ENFORCEMENT  
Date: 11/20/2007  
Action: Technical Correspondence / Assistance / Other

Global Id: T0600100831  
Action Type: RESPONSE  
Date: 12/29/2017  
Action: Sensitive Receptor Survey Report

Global Id: T0600100831  
Action Type: RESPONSE  
Date: 06/08/2017  
Action: Clean Up Fund - 5-Year Review Summary

Global Id: T0600100831  
Action Type: RESPONSE  
Date: 08/31/2018  
Action: Well Destruction Report

Global Id: T0600100831  
Action Type: RESPONSE  
Date: 11/24/2015  
Action: Other Workplan - Regulator Responded

Global Id: T0600100831  
Action Type: RESPONSE

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**LIBERTY STATION ESCUTIA'S (Continued)**

**S101293899**

Date: 01/29/2016  
Action: Other Workplan - Regulator Responded

Global Id: T0600100831  
Action Type: RESPONSE  
Date: 06/20/2016  
Action: Request for Closure - Regulator Responded

Global Id: T0600100831  
Action Type: RESPONSE  
Date: 10/19/2016  
Action: Preliminary Site Assessment Workplan - Addendum - Regulator Responded

Global Id: T0600100831  
Action Type: ENFORCEMENT  
Date: 07/30/2009  
Action: Technical Correspondence / Assistance / Other

Global Id: T0600100831  
Action Type: ENFORCEMENT  
Date: 06/03/2010  
Action: Technical Correspondence / Assistance / Other

Global Id: T0600100831  
Action Type: ENFORCEMENT  
Date: 08/02/2013  
Action: Technical Correspondence / Assistance / Other

Global Id: T0600100831  
Action Type: ENFORCEMENT  
Date: 09/08/2017  
Action: 13267 Requirement

Global Id: T0600100831  
Action Type: ENFORCEMENT  
Date: 08/06/2012  
Action: Technical Correspondence / Assistance / Other

Global Id: T0600100831  
Action Type: ENFORCEMENT  
Date: 06/25/2014  
Action: File review

Global Id: T0600100831  
Action Type: ENFORCEMENT  
Date: 05/10/2018  
Action: 13267 Requirement

Global Id: T0600100831  
Action Type: ENFORCEMENT  
Date: 03/01/2018  
Action: Notification - Fee Title Owners Notice

Global Id: T0600100831  
Action Type: Other  
Date: 06/28/1984  
Action: Leak Discovery

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**LIBERTY STATION ESCUTIA'S (Continued)**

**S101293899**

Global Id: T0600100831  
Action Type: ENFORCEMENT  
Date: 06/26/2014  
Action: Technical Correspondence / Assistance / Other

Global Id: T0600100831  
Action Type: Other  
Date: 06/28/1984  
Action: Leak Stopped

**LUST:**

Global Id: T0600100831  
Status: Open - Case Begin Date  
Status Date: 06/28/1984

Global Id: T0600100831  
Status: Open - Remediation  
Status Date: 01/20/1998

Global Id: T0600100831  
Status: Open - Remediation  
Status Date: 09/15/2013

Global Id: T0600100831  
Status: Open - Site Assessment  
Status Date: 09/16/1986

Global Id: T0600100831  
Status: Open - Site Assessment  
Status Date: 04/04/1995

Global Id: T0600100831  
Status: Open - Site Assessment  
Status Date: 06/13/1995

**HIST CORTESE:**

Region: CORTESE  
Facility County Code: 1  
Reg By: LTNKA  
Reg Id: 01-0904

**CERS TANKS:**

Site ID: 244356  
CERS ID: T0600100831  
Site Name: FORMER LIBERTY STATION  
CERS Description: Leaking Underground Storage Tank Cleanup Site

**Affiliation:**

Affiliation Type Desc: Local Agency Caseworker  
Entity Name: EILEEN CHEN - ALAMEDA COUNTY WATER DISTRICT  
Entity Title: Not reported  
Affiliation Address: 43885 SOUTH GRIMMER BLVD.  
Affiliation City: FREMONT  
Affiliation State: CA  
Affiliation Country: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**LIBERTY STATION ESCUTIA'S (Continued)**

**S101293899**

Affiliation Zip: Not reported  
Affiliation Phone: Not reported  
  
Affiliation Type Desc: Regional Board Caseworker  
Entity Name: RALPH LAMBERT - SAN FRANCISCO BAY RWQCB (REGION 2)  
Entity Title: Not reported  
Affiliation Address: 1515 CLAY ST. SUITE 1500  
Affiliation City: OAKLAND  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

**O77**  
**SE**  
**1/4-1/2**  
**0.269 mi.**  
**1418 ft.**

**C P INORGANICS**  
**34400 ZWISSIG WAY**  
**UNION CITY, CA 94587**  
  
**Site 1 of 3 in cluster O**

**CHMIRS** **S105663376**  
**EMI** **N/A**  
**ICE**  
**HWP**

**Relative:**  
**Lower**  
  
**Actual:**  
**49 ft.**

CHMIRS:  
OES Incident Number: 9-0278  
OES notification: 01/20/1999  
OES Date: Not reported  
OES Time: Not reported  
**Date Completed: Not reported**  
Property Use: Not reported  
Agency Id Number: Not reported  
Agency Incident Number: Not reported  
Time Notified: Not reported  
Time Completed: Not reported  
Surrounding Area: Not reported  
Estimated Temperature: Not reported  
Property Management: Not reported  
More Than Two Substances Involved?: Not reported  
Resp Agncy Personel # Of Decontaminated: Not reported  
Responding Agency Personel # Of Injuries: Not reported  
Responding Agency Personel # Of Fatalities: Not reported  
Others Number Of Decontaminated: Not reported  
Others Number Of Injuries: Not reported  
Others Number Of Fatalities: Not reported  
Vehicle Make/year: Not reported  
Vehicle License Number: Not reported  
Vehicle State: Not reported  
Vehicle Id Number: Not reported  
CA DOT PUC/ICC Number: Not reported  
Company Name: Not reported  
Reporting Officer Name/ID: Not reported  
Report Date: Not reported  
Facility Telephone: Not reported  
Waterway Involved: No  
Waterway: Not reported  
Spill Site: Not reported  
Cleanup By: none  
Containment: Not reported  
What Happened: Not reported  
Type: Not reported  
Measure: Not reported



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**C P INORGANICS (Continued)**

**S105663376**

Other: Not reported  
Date/Time: Not reported  
Year: 1999  
Agency: Phibro-Tech  
Incident Date: 1/19/199912:00:00 AM  
Admin Agency: Union City Fire Department  
Amount: Not reported  
Contained: Yes  
Site Type: Other  
E Date: Not reported  
Substance: ammonia, 21 ppm solution  
Unknown: 0  
Substance #2: Not reported  
Substance #3: Not reported  
Evacuations: 0  
Number of Injuries: 0  
Number of Fatalities: 0  
#1 Pipeline: Not reported  
#2 Pipeline: Not reported  
#3 Pipeline: Not reported  
#1 Vessel >= 300 Tons: Not reported  
#2 Vessel >= 300 Tons: Not reported  
#3 Vessel >= 300 Tons: Not reported  
Evacs: Not reported  
Injuries: Not reported  
Fatales: Not reported  
Comments: Not reported  
Description: Small amount released - final calculations are not available. It was released from a loose valve stem packing.

**EMI:**

Year: 1987  
County Code: 1  
Air Basin: SF  
Facility ID: 1865  
Air District Name: BA  
SIC Code: 2819  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 1  
Reactive Organic Gases Tons/Yr: 1  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 1990  
County Code: 1  
Air Basin: SF  
Facility ID: 1865  
Air District Name: BA  
SIC Code: 2819  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**C P INORGANICS (Continued)**

**S105663376**

Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 1  
Reactive Organic Gases Tons/Yr: 1  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 1996  
County Code: 1  
Air Basin: SF  
Facility ID: 9419  
Air District Name: BA  
SIC Code: 2819  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0  
Reactive Organic Gases Tons/Yr: 0  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 1997  
County Code: 1  
Air Basin: SF  
Facility ID: 9419  
Air District Name: BA  
SIC Code: 2819  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0  
Reactive Organic Gases Tons/Yr: 0  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 1998  
County Code: 1  
Air Basin: SF  
Facility ID: 9419  
Air District Name: BA  
SIC Code: 2819  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0  
Reactive Organic Gases Tons/Yr: 0  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**C P INORGANICS (Continued)**

**S105663376**

Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smlr Tons/Yr:0  
  
Year: 1999  
County Code: 1  
Air Basin: SF  
Facility ID: 9419  
Air District Name: BA  
SIC Code: 2819  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0  
Reactive Organic Gases Tons/Yr: 0  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 1  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2000  
County Code: 1  
Air Basin: SF  
Facility ID: 9419  
Air District Name: BA  
SIC Code: 2819  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0  
Reactive Organic Gases Tons/Yr: 0  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 1  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2001  
County Code: 1  
Air Basin: SF  
Facility ID: 9419  
Air District Name: BA  
SIC Code: 2819  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0  
Reactive Organic Gases Tons/Yr: 0  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

ICE:  
Envirostor ID: 3001937  
EPA ID: CAD981160948

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**C P INORGANICS (Continued)**

**S105663376**

Site Type: INSPECTION  
Facility Status: No Action

Enforcement:  
Action Type: Consent Order with Enforcement and Settlement - Federal CA/FO (385)  
Action Date: 01/14/2000

Action Type: Consent Order with Enforcement and Settlement - Federal CA/FO (385)  
Action Date: 05/21/2002

Inspection:  
Action Type: Compliance Evaluation Inspection - Treatment, Storage and Disposal  
Action Date: 10/27/1993  
Violation Class: No Violations  
RTC Date: Not reported

Action Type: Compliance Evaluation Inspection - Treatment, Storage and Disposal  
Action Date: 06/19/2000  
Violation Class: Class 1, Class 2  
RTC Date: 08/08/2001

Action Type: Compliance Evaluation Inspection - Treatment, Storage and Disposal  
Action Date: 04/23/2003  
Violation Class: No Violations  
RTC Date: Not reported

Action Type: Follow-up Inspection - Treatment, Storage and Disposal  
Action Date: 06/26/2001  
Violation Class: Class 1, Class 2, Minor  
RTC Date: 08/08/2001

Action Type: Compliance Evaluation Inspection  
Action Date: 09/16/1998  
Violation Class: Class 1, Class 2, Minor  
RTC Date: 01/07/2000

Action Type: Compliance Evaluation Inspection - Treatment, Storage and Disposal  
Action Date: 05/22/2002  
Violation Class: No Violations  
RTC Date: Not reported

Action Type: Financial Records Review - Post-Closure  
Action Date: 04/14/2003  
Violation Class: No Violations  
RTC Date: Not reported

HWP:  
EPA Id: CAD981160948  
Cleanup Status: CLOSED  
Latitude: 37.59108  
Longitude: -122.0113  
Facility Type: Historical - Non-Operating  
Facility Size: Not reported  
Team: MICHAEL CHOE  
Supervisor: Not reported  
Site Code: 200396

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**C P INORGANICS (Continued)**

**S105663376**

Assembly District: 20  
Senate District: 10  
Public Information Officer: Not reported  
Public Information Officer: Not reported

Activities:

EPA Id: CAD981160948  
Facility Type: Historical - Non-Operating  
Unit Names: CONTAIN1, TANKSTR1, TANKTRT1  
Event Description: New Operating Permit - TECHNICAL COMPLETE LETTER  
Actual Date: 06/24/1996

EPA Id: CAD981160948  
Facility Type: Historical - Non-Operating  
Unit Names: CONTAIN1, TANKSTR1, TANKTRT1  
Event Description: New Operating Permit - APPLICATION PART B RECEIVED  
Actual Date: 06/01/1986

EPA Id: CAD981160948  
Facility Type: Historical - Non-Operating  
Unit Names: CONTAIN1, STCONTAIN1 (GPRA Unit), TANKSTR1, TANKTRT1  
Event Description: New Operating Permit - FINAL PERMIT - WITHDRAWAL REQUEST ACKNOWLEDGED  
Actual Date: 12/05/2001

EPA Id: CAD981160948  
Facility Type: Historical - Non-Operating  
Unit Names: CONTAIN1, STCONTAIN1 (GPRA Unit), TANKSTR1, TANKTRT1  
Event Description: New Operating Permit - APPLICATION PART A RECEIVED  
Actual Date: 05/09/1986

Closure:

EPA Id: CAD981160948  
Facility Type: Historical - Non-Operating  
Unit Names: CONTAIN1, STCONTAIN1 (GPRA Unit), TANKSTR1, TANKTRT1  
Event Description: Closure Final - PUBLIC COMMENT (END)  
Actual Date: 02/06/2003

EPA Id: CAD981160948  
Facility Type: Historical - Non-Operating  
Unit Names: Not reported  
Event Description: Closure - ISSUE CLOSURE VERIFICATION  
Actual Date: 12/30/2003

EPA Id: CAD981160948  
Facility Type: Historical - Non-Operating  
Unit Names: Not reported  
Event Description: Closure - CLOSURE NOTICE RECEIVED  
Actual Date: 12/05/2001

EPA Id: CAD981160948  
Facility Type: Historical - Non-Operating  
Unit Names: Not reported  
Event Description: Closure - CLOSURE PLAN APPROVED  
Actual Date: 02/28/2003

EPA Id: CAD981160948  
Facility Type: Historical - Non-Operating

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**C P INORGANICS (Continued)**

**S105663376**

Unit Names:	Not reported
Event Description:	Closure - 2ND NOTICE OF DEFICIENCY ISSUED
Actual Date:	03/15/2002
EPA Id:	CAD981160948
Facility Type:	Historical - Non-Operating
Unit Names:	Not reported
Event Description:	Closure - PUBLIC COMMENT (BEGIN)
Actual Date:	01/07/2003
EPA Id:	CAD981160948
Facility Type:	Historical - Non-Operating
Unit Names:	Not reported
Event Description:	Closure - RECEIVE CLOSURE CERTIFICATION
Actual Date:	10/31/2012
EPA Id:	CAD981160948
Facility Type:	Historical - Non-Operating
Unit Names:	CONTAIN1, STCONTAIN1 (GPRA Unit), TANKSTR1, TANKTRT1
Event Description:	Closure Final - CLOSURE PLAN APPROVED
Actual Date:	02/28/2003
EPA Id:	CAD981160948
Facility Type:	Historical - Non-Operating
Unit Names:	Not reported
Event Description:	Closure - RESPONSE TO 2ND NOD RECEIVED
Actual Date:	04/15/2002
EPA Id:	CAD981160948
Facility Type:	Historical - Non-Operating
Unit Names:	Not reported
Event Description:	Closure - ISSUE CLOSURE VERIFICATION
Actual Date:	01/07/2004
EPA Id:	CAD981160948
Facility Type:	Historical - Non-Operating
Unit Names:	CONTAIN1, STCONTAIN1 (GPRA Unit), TANKSTR1, TANKTRT1
Event Description:	Closure Final - ISSUE CLOSURE VERIFICATION
Actual Date:	01/07/2004
EPA Id:	CAD981160948
Facility Type:	Historical - Non-Operating
Unit Names:	CONTAIN1, STCONTAIN1 (GPRA Unit), TANKSTR1, TANKTRT1
Event Description:	Closure Final - PUBLIC COMMENT (BEGIN)
Actual Date:	01/07/2003
EPA Id:	CAD981160948
Facility Type:	Historical - Non-Operating
Unit Names:	CONTAIN1, STCONTAIN1 (GPRA Unit), TANKSTR1, TANKTRT1
Event Description:	Closure Final - RECEIVE CLOSURE CERTIFICATION
Actual Date:	10/30/2003
EPA Id:	CAD981160948
Facility Type:	Historical - Non-Operating
Unit Names:	Not reported
Event Description:	Closure - 1ST NOTICE OF DEFICIENCY ISSUED
Actual Date:	12/21/2001

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**C P INORGANICS (Continued)**

**S105663376**

EPA Id: CAD981160948  
 Facility Type: Historical - Non-Operating  
 Unit Names: Not reported  
 Event Description: Closure - RESPONSE TO 1ST NOD RECEIVED  
 Actual Date: 01/31/2002

EPA Id: CAD981160948  
 Facility Type: Historical - Non-Operating  
 Unit Names: Not reported  
 Event Description: Closure - PUBLIC COMMENT (END)  
 Actual Date: 02/06/2003

Alias:

EPA Id: CAD981160948  
 Facility Type: Historical - Non-Operating  
 Alias Type: FRS  
 Alias: 110000483600

EPA Id: CAD981160948  
 Facility Type: Historical - Non-Operating  
 Alias Type: Project Code (Site Code)  
 Alias: 200396

**O78**  
**SE**  
 1/4-1/2  
 0.269 mi.  
 1418 ft.

**PHIBRO-TECH, INC**  
**34400 ZWISSIG WAY**  
**UNION CITY, CA 94587**  
 Site 2 of 3 in cluster O

**ENVIROSTOR** **S118757547**  
**CERS** **N/A**

**Relative:**  
**Lower**  
**Actual:**  
**49 ft.**

ENVIROSTOR:  
 Facility ID: 80001764  
 Status: No Action Required  
 Status Date: 04/06/2009  
 Site Code: 200396  
 Site Type: Corrective Action  
 Site Type Detailed: Corrective Action  
 Acres: 3  
 NPL: NO  
 Regulatory Agencies: SMBRP  
 Lead Agency: SMBRP  
 Program Manager: Not reported  
 Supervisor: Karen Toth  
 Division Branch: Cleanup Berkeley  
 Assembly: 20  
 Senate: 10  
 Special Program: Not reported  
 Restricted Use: NO  
 Site Mgmt Req: NONE SPECIFIED  
 Funding: Not reported  
 Latitude: 37.59108  
 Longitude: -122.0113  
 APN: NONE SPECIFIED  
 Past Use: HAZARDOUS WASTE TREATMENT, METAL RECLAMATION  
 Potential COC: Copper and compounds Nickel Copper and compounds Nickel  
 Confirmed COC: Copper and compounds Nickel Copper and compounds Nickel  
 Potential Description: NMA

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PHIBRO-TECH, INC (Continued)**

**S118757547**

Alias Name: CAD981160948  
Alias Type: EPA Identification Number  
Alias Name: 11000483600  
Alias Type: EPA (FRS #)  
Alias Name: 200396  
Alias Type: Project Code (Site Code)  
Alias Name: 80001764  
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Consent Order  
Completed Date: 06/27/1997  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: RCRA Facility Assessment Report  
Completed Date: 06/30/1992  
Comments: RCRA Facility Assessment Completed 6/30/1992

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: CEQA - Initial Study/ Neg. Declaration  
Completed Date: 03/11/2003  
Comments: CEQA Notice of Determination 3-11-2003

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Consent Order  
Completed Date: 06/27/1997  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: RFI Workplan  
Completed Date: 08/17/2001  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Technical Workplan  
Completed Date: 02/28/2003  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Groundwater Migration Controlled  
Completed Date: 02/03/2012  
Comments: Site was clean closed to residential unrestricted standards.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Human Exposure Controlled  
Completed Date: 02/03/2012  
Comments: Site was clean closed to residential unrestricted standards.



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PHIBRO-TECH, INC (Continued)**

**S118757547**

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Remedy Construction Complete  
Completed Date: 02/03/2012  
Comments: Site was clean closed to residential unrestricted standards.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Remedial Action Completion Report  
Completed Date: 04/04/2008  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Technical Report  
Completed Date: 10/31/2003  
Comments: Not reported

Future Area Name: Not reported  
Future Sub Area Name: Not reported  
Future Document Type: Not reported  
Future Due Date: Not reported  
Schedule Area Name: Not reported  
Schedule Sub Area Name: Not reported  
Schedule Document Type: Not reported  
Schedule Due Date: Not reported  
Schedule Revised Date: Not reported

**CERS TANKS:**

Site ID: 247554  
CERS ID: 80001764  
Site Name: PHIBRO-TECH, INC  
CERS Description: Corrective Action

**Evaluation:**

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 10-27-1993  
Violations Found: No  
Eval Type: DTSC Compliance Evaluation Inspection  
Eval Notes: Compliance Evaluation Inspection - Treatment, Storage and Disposal  
Eval Division: Department of Toxic Substances Control  
Eval Program: DTSC\_ENF  
Eval Source: ENVSTORHAZ

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 06-19-2000  
Violations Found: Yes  
Eval Type: DTSC Compliance Evaluation Inspection  
Eval Notes: Compliance Evaluation Inspection - Treatment, Storage and Disposal  
Return To Compliance: 2001-08-08 00:00:00  
Eval Division: Department of Toxic Substances Control  
Eval Program: DTSC\_ENF  
Eval Source: ENVSTORHAZ

Eval General Type: Compliance Followup Inspection  
Eval Date: 06-26-2001  
Violations Found: Yes

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PHIBRO-TECH, INC (Continued)**

**S118757547**

Eval Type: DTSC Follow-up Inspection  
Eval Notes: Follow-up Inspection - Treatment, Storage and Disposal Return To Compliance: 2001-08-08 00:00:00  
Eval Division: Department of Toxic Substances Control  
Eval Program: DTSC\_ENF  
Eval Source: ENVSTORHAZ

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 04-23-2003  
Violations Found: No  
Eval Type: DTSC Compliance Evaluation Inspection  
Eval Notes: Compliance Evaluation Inspection - Treatment, Storage and Disposal  
Eval Division: Department of Toxic Substances Control  
Eval Program: DTSC\_ENF  
Eval Source: ENVSTORHAZ

Eval General Type: Information Request  
Eval Date: 04-14-2003  
Violations Found: No  
Eval Type: DTSC Financial Records Review  
Eval Notes: Financial Records Review - Post-Closure  
Eval Division: Department of Toxic Substances Control  
Eval Program: DTSC\_ENF  
Eval Source: ENVSTORHAZ

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 05-22-2002  
Violations Found: No  
Eval Type: DTSC Compliance Evaluation Inspection  
Eval Notes: Compliance Evaluation Inspection - Treatment, Storage and Disposal  
Eval Division: Department of Toxic Substances Control  
Eval Program: DTSC\_ENF  
Eval Source: ENVSTORHAZ

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 09-16-1998  
Violations Found: Yes  
Eval Type: Compliance  
Eval Notes: Compliance Evaluation Inspection Return To Compliance: 2000-01-07 00:00:00  
Eval Division: Department of Toxic Substances Control  
Eval Program: DTSC\_ENF  
Eval Source: ENVSTORHAZ

**Enforcement Action:**

Site ID: 247554  
Site Name: PHIBRO-TECH, INC  
Site Address: 34400 ZWISSIG WAY  
Site City: UNION CITY  
Site Zip: 945873638  
Enf Action Date: 01-14-2000  
Enf Action Type: Federal Consent Order with Enforcement and Settlement  
Enf Action Description: Federal Consent Order with Enforcement and Settlement  
Enf Action Notes: Not reported  
Enf Action Division: Department of Toxic Substances Control  
Enf Action Program: DTSC\_ENF  
Enf Action Source: ENVSTORHAZ

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PHIBRO-TECH, INC (Continued)**

**S118757547**

Site ID: 247554  
Site Name: PHIBRO-TECH, INC  
Site Address: 34400 ZWISSIG WAY  
Site City: UNION CITY  
Site Zip: 945873638  
Enf Action Date: 05-21-2002  
Enf Action Type: Federal Consent Order with Enforcement and Settlement  
Enf Action Description: Federal Consent Order with Enforcement and Settlement  
Enf Action Notes: Not reported  
Enf Action Division: Department of Toxic Substances Control  
Enf Action Program: DTSC\_ENF  
Enf Action Source: ENVSTORHAZ

Affiliation:

Affiliation Type Desc: Supervisor  
Entity Name: Karen Toth  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Contact  
Entity Name: MARK ALLING/GENERAL MANAGER  
Entity Title: Not reported  
Affiliation Address: 34400 ZWISSIG WAY  
Affiliation City: SANTA FE SPRINGS  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 906700000  
Affiliation Phone: 5626988036

Affiliation Type Desc: Facility Owner  
Entity Name: PHIBRO-TECH, INC  
Entity Title: Not reported  
Affiliation Address: ONE PARKER PLAZA  
Affiliation City: FORT LEE  
Affiliation State: NJ  
Affiliation Country: Not reported  
Affiliation Zip: 070240000  
Affiliation Phone: 2019446020

Site ID: 247554  
CERS ID: CAD981160948  
Site Name: PHIBRO-TECH, INC  
CERS Description: Hazardous Waste

Evaluation:

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 10-27-1993  
Violations Found: No  
Eval Type: DTSC Compliance Evaluation Inspection  
Eval Notes: Compliance Evaluation Inspection - Treatment, Storage and Disposal  
Eval Division: Department of Toxic Substances Control

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PHIBRO-TECH, INC (Continued)**

**S118757547**

Eval Program: DTSC\_ENF  
Eval Source: ENVSTORHAZ

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 06-19-2000  
Violations Found: Yes  
Eval Type: DTSC Compliance Evaluation Inspection  
Eval Notes: Compliance Evaluation Inspection - Treatment, Storage and Disposal  
Return To Compliance: 2001-08-08 00:00:00

Eval Division: Department of Toxic Substances Control  
Eval Program: DTSC\_ENF  
Eval Source: ENVSTORHAZ

Eval General Type: Compliance Followup Inspection  
Eval Date: 06-26-2001  
Violations Found: Yes  
Eval Type: DTSC Follow-up Inspection  
Eval Notes: Follow-up Inspection - Treatment, Storage and Disposal Return To  
Compliance: 2001-08-08 00:00:00

Eval Division: Department of Toxic Substances Control  
Eval Program: DTSC\_ENF  
Eval Source: ENVSTORHAZ

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 04-23-2003  
Violations Found: No  
Eval Type: DTSC Compliance Evaluation Inspection  
Eval Notes: Compliance Evaluation Inspection - Treatment, Storage and Disposal

Eval Division: Department of Toxic Substances Control  
Eval Program: DTSC\_ENF  
Eval Source: ENVSTORHAZ

Eval General Type: Information Request  
Eval Date: 04-14-2003  
Violations Found: No  
Eval Type: DTSC Financial Records Review  
Eval Notes: Financial Records Review - Post-Closure

Eval Division: Department of Toxic Substances Control  
Eval Program: DTSC\_ENF  
Eval Source: ENVSTORHAZ

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 05-22-2002  
Violations Found: No  
Eval Type: DTSC Compliance Evaluation Inspection  
Eval Notes: Compliance Evaluation Inspection - Treatment, Storage and Disposal

Eval Division: Department of Toxic Substances Control  
Eval Program: DTSC\_ENF  
Eval Source: ENVSTORHAZ

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 09-16-1998  
Violations Found: Yes  
Eval Type: Compliance  
Eval Notes: Compliance Evaluation Inspection Return To Compliance: 2000-01-07  
00:00:00

Eval Division: Department of Toxic Substances Control

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PHIBRO-TECH, INC (Continued)**

**S118757547**

Eval Program: DTSC\_ENF  
Eval Source: ENVSTORHAZ

Enforcement Action:  
Site ID: 247554  
Site Name: PHIBRO-TECH, INC  
Site Address: 34400 ZWISSIG WAY  
Site City: UNION CITY  
Site Zip: 945873638  
Enf Action Date: 01-14-2000  
Enf Action Type: Federal Consent Order with Enforcement and Settlement  
Enf Action Description: Federal Consent Order with Enforcement and Settlement  
Enf Action Notes: Not reported  
Enf Action Division: Department of Toxic Substances Control  
Enf Action Program: DTSC\_ENF  
Enf Action Source: ENVSTORHAZ

Site ID: 247554  
Site Name: PHIBRO-TECH, INC  
Site Address: 34400 ZWISSIG WAY  
Site City: UNION CITY  
Site Zip: 945873638  
Enf Action Date: 05-21-2002  
Enf Action Type: Federal Consent Order with Enforcement and Settlement  
Enf Action Description: Federal Consent Order with Enforcement and Settlement  
Enf Action Notes: Not reported  
Enf Action Division: Department of Toxic Substances Control  
Enf Action Program: DTSC\_ENF  
Enf Action Source: ENVSTORHAZ

Affiliation:  
Affiliation Type Desc: Supervisor  
Entity Name: Karen Toth  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Contact  
Entity Name: MARK ALLING/GENERAL MANAGER  
Entity Title: Not reported  
Affiliation Address: 34400 ZWISSIG WAY  
Affiliation City: SANTA FE SPRINGS  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 906700000  
Affiliation Phone: 5626988036

Affiliation Type Desc: Facility Owner  
Entity Name: PHIBRO-TECH, INC  
Entity Title: Not reported  
Affiliation Address: ONE PARKER PLAZA  
Affiliation City: FORT LEE

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PHIBRO-TECH, INC (Continued)**

**S118757547**

Affiliation State: NJ  
Affiliation Country: Not reported  
Affiliation Zip: 070240000  
Affiliation Phone: 2019446020

**O79**  
**SE**  
**1/4-1/2**  
**0.269 mi.**  
**1418 ft.**

**PHIBRO-TECH, INC.**  
**34400 ZWISSIG WAY**  
**UNION CITY, CA 94587**

**CORRACTS**  
**RCRA-SQG**  
**2020 COR ACTION**  
**ECHO**

**1000258258**  
**CAD981160948**

**Site 3 of 3 in cluster O**

**Relative:**  
**Lower**

**CORRACTS:**

**Actual:**  
**49 ft.**

EPA ID: CAD981160948  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 20120203  
Action: CA750YE - Migration of Contaminated Groundwater under Control, Yes, Migration of Contaminated Groundwater Under Control has been verified  
NAICS Code(s): 325188  
All Other Basic Inorganic Chemical Manufacturing  
Original schedule date: 20120219  
Schedule end date: Not reported

EPA ID: CAD981160948  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 20120203  
Action: CA550RC  
NAICS Code(s): 325188  
All Other Basic Inorganic Chemical Manufacturing  
Original schedule date: 20120219  
Schedule end date: Not reported

EPA ID: CAD981160948  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 20120203  
Action: CA725YE - Current Human Exposures Under Control, Yes, Current Human Exposures Under Control has been verified  
NAICS Code(s): 325188  
All Other Basic Inorganic Chemical Manufacturing  
Original schedule date: 20120219  
Schedule end date: Not reported

EPA ID: CAD981160948  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 20010817  
Action: CA150 - RFI Workplan Approved  
NAICS Code(s): 325188  
All Other Basic Inorganic Chemical Manufacturing  
Original schedule date: Not reported  
Schedule end date: Not reported

**RCRA-SQG:**

Date form received by agency: 05/28/2004

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PHIBRO-TECH, INC. (Continued)**

**1000258258**

Facility name: PHIBRO-TECH, INC.  
Facility address: 34400 ZWISSIG WAY  
UNION CITY, CA 94587  
EPA ID: CAD981160948  
Mailing address: PHIBRO-TECH, INC  
8851 DICE ROAD  
SANTA FE SPRINGS, CA 90670  
Contact: MARTY VOSS  
Contact address: Not reported  
Not reported  
Contact country: US  
Contact telephone: 562-698-8036  
Telephone ext.: 120  
Contact email: MVOSS@PHIBROCHEM.COM  
EPA Region: 09  
Land type: Private  
Classification: Small Small Quantity Generator  
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

**Owner/Operator Summary:**

Owner/operator name: PHIBRO-TECH, INC.  
Owner/operator address: Not reported  
Not reported  
Owner/operator country: US  
Owner/operator telephone: Not reported  
Owner/operator email: Not reported  
Owner/operator fax: Not reported  
Owner/operator extension: Not reported  
Legal status: Private  
Owner/Operator Type: Operator  
Owner/Op start date: 01/01/1988  
Owner/Op end date: Not reported

Owner/operator name: PHIBRO ANIMAL HEALTH  
Owner/operator address: ONE PARKER PLAZA  
FORT LEE, NJ 07024  
Owner/operator country: US  
Owner/operator telephone: Not reported  
Owner/operator email: Not reported  
Owner/operator fax: Not reported  
Owner/operator extension: Not reported  
Legal status: Private  
Owner/Operator Type: Owner  
Owner/Op start date: 01/01/1988  
Owner/Op end date: Not reported

**Handler Activities Summary:**

U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): No  
Recycler of hazardous waste: No  
Transporter of hazardous waste: No  
Treater, storer or disposer of HW: Yes

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PHIBRO-TECH, INC. (Continued)**

**1000258258**

Underground injection activity: No  
On-site burner exemption: No  
Furnace exemption: No  
Used oil fuel burner: No  
Used oil processor: No  
Used oil refiner: No  
Used oil fuel marketer to burner: No  
Used oil Specification marketer: No  
Used oil transfer facility: No  
Used oil transporter: No

Historical Generators:

Date form received by agency: 05/28/2004

Site name: PHIBRO-TECH, INC.  
Classification: Large Quantity Generator

. Waste code: D001  
. Waste name: IGNITABLE WASTE

. Waste code: D002  
. Waste name: CORROSIVE WASTE

. Waste code: D004  
. Waste name: ARSENIC

. Waste code: D007  
. Waste name: CHROMIUM

. Waste code: D009  
. Waste name: MERCURY

Date form received by agency: 02/27/2002

Site name: PHIBRO-TECH, INC. - UNION CITY  
Classification: Large Quantity Generator

. Waste code: 132  
. Waste name: Aqueous solution w/metals (< restricted levels and see waste code 121 for a list of metals)

. Waste code: 135  
. Waste name: Unspecified aqueous solution

. Waste code: 181  
. Waste name: Other inorganic solid waste

. Waste code: 221  
. Waste name: Waste oil and mixed oil

. Waste code: 223  
. Waste name: Unspecified oil-containing waste

. Waste code: 791  
. Waste name: Liquids with pH < 2

. Waste code: 792  
. Waste name: Liquids with pH < 2 with metals



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PHIBRO-TECH, INC. (Continued)**

**1000258258**

- . Waste code: D002
- . Waste name: CORROSIVE WASTE
  
- . Waste code: D004
- . Waste name: ARSENIC
  
- . Waste code: D007
- . Waste name: CHROMIUM
  
- . Waste code: D008
- . Waste name: LEAD
  
- . Waste code: F006
- . Waste name: WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS, EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC, AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.

Date form received by agency: 10/12/2000  
Site name: PHIBRO-TECH, INC.  
Classification: Large Quantity Generator

Date form received by agency: 03/04/1999  
Site name: PHIBRO-TECH, INC.  
Classification: Large Quantity Generator

Date form received by agency: 09/01/1996  
Site name: PHIBRO TECH INC  
Classification: Large Quantity Generator

Date form received by agency: 02/28/1996  
Site name: PHIBRO TECH INC  
Classification: Large Quantity Generator

Date form received by agency: 07/19/1994  
Site name: PHIBRO TECH INC  
Classification: Large Quantity Generator

Date form received by agency: 03/31/1994  
Site name: PHIBRO-TECH, INC. AKA ENTECH RECOVERY, I  
Classification: Large Quantity Generator

Date form received by agency: 02/27/1992  
Site name: ENTECH RECOVERY, INC. DBA CP INORGANICS  
Classification: Large Quantity Generator

Date form received by agency: 04/16/1990  
Site name: CP INORGANICS INC  
Classification: Not a generator, verified

**Corrective Action Summary:**

Event date: 01/01/1990  
Event: LEAD AGENCY DETERMINATION

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PHIBRO-TECH, INC. (Continued)**

**1000258258**

Event date: 06/30/1992  
Event: RFA COMPLETED-ASSESSMENT WAS A RFA

Event date: 06/27/1997  
Event: INVESTIGATION IMPOSITION

Event date: 02/24/2000  
Event: INVESTIGATION WORKPLAN RECEIVED

Event date: 08/17/2001  
Event: INVESTIGATION WORKPLAN NOTICE OF DEFICIENCY ISSUED

Event date: 08/17/2001  
Event: INVESTIGATION WORKPLAN APPROVED

Event date: 04/26/2010  
Event: HUMAN EXPOSURES CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE

Event date: 02/03/2012  
Event: HUMAN EXPOSURES CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE

Event date: 02/03/2012  
Event: RELEASE TO GW CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE

Event date: 02/03/2012  
Event: REMEDY CONSTRUCTION-REMEDY CONSTRUCTED

Event date: 02/09/2012  
Event: RELEASE TO GW CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE

Event date: 02/09/2012  
Event: REMEDY CONSTRUCTION-REMEDY CONSTRUCTED

Facility Has Received Notices of Violations:

Regulation violated: Not reported  
Area of violation: TSD - Tank System Standards  
Date violation determined: 06/26/2001  
Date achieved compliance: 08/08/2001  
Violation lead agency: State  
Enforcement action: SINGLE SITE CA/FO  
Enforcement action date: 05/21/2002  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: 15000  
Paid penalty amount: Not reported

Regulation violated: Not reported  
Area of violation: TSD - Container Use and Management  
Date violation determined: 06/26/2001  
Date achieved compliance: 07/11/2001  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 06/27/2001

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PHIBRO-TECH, INC. (Continued)**

**1000258258**

Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: Not reported  
Area of violation: TSD - General Facility Standards  
Date violation determined: 06/26/2001  
Date achieved compliance: 08/08/2001  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 06/27/2001  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: Not reported  
Area of violation: TSD - General Facility Standards  
Date violation determined: 06/26/2001  
Date achieved compliance: 07/11/2001  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 06/27/2001  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: Not reported  
Area of violation: TSD - Tank System Standards  
Date violation determined: 06/26/2001  
Date achieved compliance: 08/08/2001  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 06/27/2001  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: Not reported  
Area of violation: TSD - General Facility Standards  
Date violation determined: 06/26/2001  
Date achieved compliance: 08/08/2001  
Violation lead agency: State  
Enforcement action: SINGLE SITE CA/FO  
Enforcement action date: 05/21/2002  
Enf. disposition status: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PHIBRO-TECH, INC. (Continued)**

**1000258258**

Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: 15000  
Paid penalty amount: Not reported

Regulation violated: Not reported  
Area of violation: TSD - Container Use and Management  
Date violation determined: 06/19/2000  
Date achieved compliance: 08/08/2001  
Violation lead agency: State  
Enforcement action: SINGLE SITE CA/FO  
Enforcement action date: 05/21/2002  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: 15000  
Paid penalty amount: Not reported

Regulation violated: Not reported  
Area of violation: TSD - Tank System Standards  
Date violation determined: 06/19/2000  
Date achieved compliance: 08/08/2001  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 06/23/2000  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: Not reported  
Area of violation: TSD - Container Use and Management  
Date violation determined: 06/19/2000  
Date achieved compliance: 08/08/2001  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 06/23/2000  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: Not reported  
Area of violation: TSD - General Facility Standards  
Date violation determined: 06/19/2000  
Date achieved compliance: 08/08/2001  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 06/23/2000  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PHIBRO-TECH, INC. (Continued)**

**1000258258**

Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: Not reported  
Area of violation: TSD - Tank System Standards  
Date violation determined: 06/19/2000  
Date achieved compliance: 08/08/2001  
Violation lead agency: State  
Enforcement action: SINGLE SITE CA/FO  
Enforcement action date: 05/21/2002  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: 15000  
Paid penalty amount: Not reported

Regulation violated: Not reported  
Area of violation: TSD - General Facility Standards  
Date violation determined: 06/19/2000  
Date achieved compliance: 08/08/2001  
Violation lead agency: State  
Enforcement action: SINGLE SITE CA/FO  
Enforcement action date: 05/21/2002  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: 15000  
Paid penalty amount: Not reported

Regulation violated: F - 262.50-60  
Area of violation: Generators - General  
Date violation determined: 09/17/1998  
Date achieved compliance: 09/21/1998  
Violation lead agency: State  
Enforcement action: Not reported  
Enforcement action date: Not reported  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: Not reported  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: F - 264.190-201.J  
Area of violation: TSD - General  
Date violation determined: 09/16/1998  
Date achieved compliance: 03/10/1999  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 09/16/1998  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PHIBRO-TECH, INC. (Continued)**

**1000258258**

Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: Not reported  
Area of violation: TSD - Tank System Standards  
Date violation determined: 09/16/1998  
Date achieved compliance: 01/07/2000  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 09/16/1998  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: Not reported  
Area of violation: TSD - General Facility Standards  
Date violation determined: 09/16/1998  
Date achieved compliance: 03/10/1999  
Violation lead agency: State  
Enforcement action: SINGLE SITE CA/FO  
Enforcement action date: 01/14/2000  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: 32500  
Paid penalty amount: Not reported

Regulation violated: Not reported  
Area of violation: TSD - General Facility Standards  
Date violation determined: 09/16/1998  
Date achieved compliance: 03/10/1999  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 09/16/1998  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: F - 264.10-18.B  
Area of violation: TSD - General  
Date violation determined: 09/16/1998  
Date achieved compliance: 01/07/2000  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 09/16/1998  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PHIBRO-TECH, INC. (Continued)**

**1000258258**

Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: Not reported  
Area of violation: Generators - General  
Date violation determined: 09/16/1998  
Date achieved compliance: 09/21/1998  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 09/16/1998  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: Not reported  
Area of violation: TSD - Tank System Standards  
Date violation determined: 09/16/1998  
Date achieved compliance: 01/07/2000  
Violation lead agency: State  
Enforcement action: SINGLE SITE CA/FO  
Enforcement action date: 01/14/2000  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: 32500  
Paid penalty amount: Not reported

Regulation violated: FR - 264.30-37.C  
Area of violation: TSD - General  
Date violation determined: 09/13/1995  
Date achieved compliance: 09/13/1995  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 09/13/1995  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: FR - 264.10-18.B  
Area of violation: TSD - General  
Date violation determined: 02/08/1994  
Date achieved compliance: 03/01/1994  
Violation lead agency: State  
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER  
Enforcement action date: 10/14/1994  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: 2000

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PHIBRO-TECH, INC. (Continued)**

**1000258258**

Paid penalty amount: 2000

Regulation violated: FR - 264.10-18.B  
Area of violation: TSD - General  
Date violation determined: 02/08/1994  
Date achieved compliance: 03/01/1994  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 02/14/1994  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: FR - 264.50-56.D  
Area of violation: TSD - General  
Date violation determined: 02/08/1994  
Date achieved compliance: 03/01/1994  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 02/14/1994  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: FR - 264.50-56.D  
Area of violation: TSD - General  
Date violation determined: 02/08/1994  
Date achieved compliance: 03/01/1994  
Violation lead agency: State  
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER  
Enforcement action date: 10/14/1994  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: 2000  
Paid penalty amount: 2000

Regulation violated: FR - 262.20-23.B  
Area of violation: Generators - General  
Date violation determined: 12/13/1991  
Date achieved compliance: 01/10/1992  
Violation lead agency: State  
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY  
Enforcement action date: 07/01/1992  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: 45000  
Paid penalty amount: Not reported



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PHIBRO-TECH, INC. (Continued)**

**1000258258**

Regulation violated: FR - 262.50-60  
Area of violation: Generators - General  
Date violation determined: 12/13/1991  
Date achieved compliance: 01/10/1992  
Violation lead agency: State  
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY  
Enforcement action date: 07/01/1992  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: 45000  
Paid penalty amount: Not reported

Regulation violated: FR - 264.10-18.B  
Area of violation: TSD - General  
Date violation determined: 12/13/1991  
Date achieved compliance: 01/10/1992  
Violation lead agency: State  
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY  
Enforcement action date: 07/01/1992  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: 45000  
Paid penalty amount: Not reported

Regulation violated: FR - 262.20-23.B  
Area of violation: Generators - General  
Date violation determined: 12/13/1991  
Date achieved compliance: 01/10/1992  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 12/20/1991  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: FR - 262.40-43.D  
Area of violation: Generators - General  
Date violation determined: 12/13/1991  
Date achieved compliance: 01/10/1992  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 12/20/1991  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: FR - 264.10-18.B

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PHIBRO-TECH, INC. (Continued)**

**1000258258**

Area of violation: TSD - General  
Date violation determined: 12/13/1991  
Date achieved compliance: 01/10/1992  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 12/20/1991  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: FR - 264.140-150.H  
Area of violation: TSD - Financial Requirements  
Date violation determined: 12/13/1991  
Date achieved compliance: 01/10/1992  
Violation lead agency: State  
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY  
Enforcement action date: 07/01/1992  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: 45000  
Paid penalty amount: Not reported

Regulation violated: FR - 262.40-43.D  
Area of violation: Generators - General  
Date violation determined: 12/13/1991  
Date achieved compliance: 01/10/1992  
Violation lead agency: State  
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY  
Enforcement action date: 07/01/1992  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: 45000  
Paid penalty amount: Not reported

Regulation violated: FR - 268.7  
Area of violation: LDR - General  
Date violation determined: 12/13/1991  
Date achieved compliance: 01/10/1992  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 12/20/1991  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: FR - 264.140-150.H  
Area of violation: TSD - Financial Requirements

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PHIBRO-TECH, INC. (Continued)**

**1000258258**

Date violation determined: 12/13/1991  
Date achieved compliance: 01/10/1992  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 12/20/1991  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: FR - 262.50-60  
Area of violation: Generators - General  
Date violation determined: 12/13/1991  
Date achieved compliance: 01/10/1992  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 12/20/1991  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: FR - 268.7  
Area of violation: LDR - General  
Date violation determined: 12/13/1991  
Date achieved compliance: 01/10/1992  
Violation lead agency: State  
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY  
Enforcement action date: 07/01/1992  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: 45000  
Paid penalty amount: Not reported

Regulation violated: FR - 262.50-60  
Area of violation: Generators - General  
Date violation determined: 08/12/1991  
Date achieved compliance: 10/04/1991  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 09/06/1991  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: FR - 264.190-201.J  
Area of violation: TSD - General  
Date violation determined: 08/12/1991

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PHIBRO-TECH, INC. (Continued)**

**1000258258**

Date achieved compliance: 10/04/1991  
Violation lead agency: State  
Enforcement action: Not reported  
Enforcement action date: Not reported  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: Not reported  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: FR - 262.20-23.B  
Area of violation: Generators - General  
Date violation determined: 08/12/1991  
Date achieved compliance: 10/04/1991  
Violation lead agency: State  
Enforcement action: Not reported  
Enforcement action date: Not reported  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: Not reported  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: FR - 262.20-23.B  
Area of violation: Generators - General  
Date violation determined: 08/12/1991  
Date achieved compliance: 10/04/1991  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 09/06/1991  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: FR - 264.10-18.B  
Area of violation: TSD - General  
Date violation determined: 08/12/1991  
Date achieved compliance: 10/04/1991  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 09/06/1991  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: FR - 262.50-60  
Area of violation: Generators - General  
Date violation determined: 08/12/1991  
Date achieved compliance: 10/04/1991

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PHIBRO-TECH, INC. (Continued)**

**1000258258**

Violation lead agency: State  
Enforcement action: Not reported  
Enforcement action date: Not reported  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: Not reported  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: FR - 264.190-201.J  
Area of violation: TSD - General  
Date violation determined: 08/12/1991  
Date achieved compliance: 10/04/1991  
Violation lead agency: State  
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY  
Enforcement action date: 07/01/1992  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: 45000  
Paid penalty amount: Not reported

Regulation violated: FR - 264.10-18.B  
Area of violation: TSD - General  
Date violation determined: 08/12/1991  
Date achieved compliance: 10/04/1991  
Violation lead agency: State  
Enforcement action: Not reported  
Enforcement action date: Not reported  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: Not reported  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: FR - 262.20-23.B  
Area of violation: Generators - General  
Date violation determined: 08/12/1991  
Date achieved compliance: 10/04/1991  
Violation lead agency: State  
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY  
Enforcement action date: 07/01/1992  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: 45000  
Paid penalty amount: Not reported

Regulation violated: FR - 264.10-18.B  
Area of violation: TSD - General  
Date violation determined: 08/12/1991  
Date achieved compliance: 10/04/1991  
Violation lead agency: State

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PHIBRO-TECH, INC. (Continued)**

**1000258258**

Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY  
Enforcement action date: 07/01/1992  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: 45000  
Paid penalty amount: Not reported

Regulation violated: FR - 268.7  
Area of violation: LDR - General  
Date violation determined: 08/12/1991  
Date achieved compliance: 01/10/1992  
Violation lead agency: State  
Enforcement action: Not reported  
Enforcement action date: Not reported  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: Not reported  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: FR - 262.50-60  
Area of violation: Generators - General  
Date violation determined: 08/12/1991  
Date achieved compliance: 10/04/1991  
Violation lead agency: State  
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY  
Enforcement action date: 07/01/1992  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: 45000  
Paid penalty amount: Not reported

Regulation violated: FR - 268.7  
Area of violation: LDR - General  
Date violation determined: 08/12/1991  
Date achieved compliance: 01/10/1992  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 09/06/1991  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: FR - 268.7  
Area of violation: LDR - General  
Date violation determined: 08/12/1991  
Date achieved compliance: 01/10/1992  
Violation lead agency: State  
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PHIBRO-TECH, INC. (Continued)**

**1000258258**

Enforcement action date: 07/01/1992  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: 45000  
Paid penalty amount: Not reported

Evaluation Action Summary:

Evaluation date: 04/23/2003  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 04/14/2003  
Evaluation: FINANCIAL RECORD REVIEW  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 05/22/2002  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 08/08/2001  
Evaluation: NOT A SIGNIFICANT NON-COMPLIER  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 06/26/2001  
Evaluation: FOLLOW-UP INSPECTION  
Area of violation: TSD - Container Use and Management  
Date achieved compliance: 07/11/2001  
Evaluation lead agency: State

Evaluation date: 06/26/2001  
Evaluation: FOLLOW-UP INSPECTION  
Area of violation: TSD - Tank System Standards  
Date achieved compliance: 08/08/2001  
Evaluation lead agency: State

Evaluation date: 06/26/2001  
Evaluation: FOLLOW-UP INSPECTION  
Area of violation: TSD - General Facility Standards  
Date achieved compliance: 08/08/2001  
Evaluation lead agency: State

Evaluation date: 06/26/2001  
Evaluation: FOLLOW-UP INSPECTION  
Area of violation: TSD - General Facility Standards  
Date achieved compliance: 07/11/2001  
Evaluation lead agency: State

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PHIBRO-TECH, INC. (Continued)**

**1000258258**

Evaluation date: 06/19/2000  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: TSD - Tank System Standards  
Date achieved compliance: 08/08/2001  
Evaluation lead agency: State

Evaluation date: 06/19/2000  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: TSD - General Facility Standards  
Date achieved compliance: 08/08/2001  
Evaluation lead agency: State

Evaluation date: 06/19/2000  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: TSD - Container Use and Management  
Date achieved compliance: 08/08/2001  
Evaluation lead agency: State

Evaluation date: 06/19/2000  
Evaluation: SIGNIFICANT NON-COMPLIER  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 09/16/1998  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: TSD - Tank System Standards  
Date achieved compliance: 01/07/2000  
Evaluation lead agency: State

Evaluation date: 09/16/1998  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: TSD - General  
Date achieved compliance: 01/07/2000  
Evaluation lead agency: State

Evaluation date: 09/16/1998  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: TSD - General  
Date achieved compliance: 03/10/1999  
Evaluation lead agency: State

Evaluation date: 09/16/1998  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: TSD - General Facility Standards  
Date achieved compliance: 03/10/1999  
Evaluation lead agency: State

Evaluation date: 09/16/1998  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Generators - General  
Date achieved compliance: 09/21/1998  
Evaluation lead agency: State

Evaluation date: 09/08/1997  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Not reported



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PHIBRO-TECH, INC. (Continued)**

**1000258258**

Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 07/19/1996  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 11/30/1995  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 09/13/1995  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: TSD - General  
Date achieved compliance: 09/13/1995  
Evaluation lead agency: State

Evaluation date: 10/27/1993  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 10/27/1993  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: TSD - General  
Date achieved compliance: 03/01/1994  
Evaluation lead agency: State

Evaluation date: 04/27/1993  
Evaluation: FINANCIAL RECORD REVIEW  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 11/19/1992  
Evaluation: FINANCIAL RECORD REVIEW  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 10/28/1992  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 11/19/1991  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Generators - General  
Date achieved compliance: 01/10/1992  
Evaluation lead agency: State

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**PHIBRO-TECH, INC. (Continued)**

**1000258258**

Evaluation date: 11/19/1991  
 Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
 Area of violation: TSD - General  
 Date achieved compliance: 01/10/1992  
 Evaluation lead agency: State

Evaluation date: 11/19/1991  
 Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
 Area of violation: TSD - Financial Requirements  
 Date achieved compliance: 01/10/1992  
 Evaluation lead agency: State

Evaluation date: 11/19/1991  
 Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
 Area of violation: LDR - General  
 Date achieved compliance: 01/10/1992  
 Evaluation lead agency: State

Evaluation date: 05/01/1990  
 Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
 Area of violation: TSD - General  
 Date achieved compliance: 10/04/1991  
 Evaluation lead agency: State

Evaluation date: 05/01/1990  
 Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
 Area of violation: Generators - General  
 Date achieved compliance: 10/04/1991  
 Evaluation lead agency: State

Evaluation date: 05/01/1990  
 Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
 Area of violation: LDR - General  
 Date achieved compliance: 01/10/1992  
 Evaluation lead agency: State

**2020 COR ACTION:**

EPA ID: CAD981160948  
 Region: 9  
 Action: Remedy Construction

**ECHO:**

Envid: 1000258258  
 Registry ID: 110000483600  
 DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110000483600>

**80**  
**North**  
**1/4-1/2**  
**0.282 mi.**  
**1488 ft.**

**ROGER'S GARAGE**  
**33663 MISSION**  
**UNION CITY, CA 94587**

**LUST S103653811**  
**HIST CORTESE N/A**

**Relative:**  
**Higher**  
**Actual:**  
**85 ft.**

**LUST:**  
 Lead Agency: ALAMEDA COUNTY WATER DISTRICT  
 Case Type: LUST Cleanup Site  
 Geo Track: [http://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=T0600102021](http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600102021)  
 Global Id: T0600102021  
 Latitude: 37.6027512

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ROGER'S GARAGE (Continued)**

**S103653811**

Longitude: -122.0168119  
Status: Completed - Case Closed  
Status Date: 06/09/1998  
Case Worker: MH  
RB Case Number: 01-2201  
Local Agency: ALAMEDA COUNTY WATER DISTRICT  
File Location: Not reported  
Local Case Number: 0429  
Potential Media Affect: Other Groundwater (uses other than drinking water)  
Potential Contaminants of Concern: Stoddard solvent / Mineral Spruits / Distillates  
Site History: Not reported

LUST:

Global Id: T0600102021  
Contact Type: Local Agency Caseworker  
Contact Name: MIKEL HALLIWELL  
Organization Name: ALAMEDA COUNTY WATER DISTRICT  
Address: 43885 SOUTH GRIMMER BLVD  
City: FREMONT  
Email: mike.halliwell@acwd.com  
Phone Number: Not reported

Global Id: T0600102021  
Contact Type: Regional Board Caseworker  
Contact Name: Regional Water Board  
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)  
Address: 1515 CLAY ST SUITE 1400  
City: OAKLAND  
Email: Not reported  
Phone Number: Not reported

LUST:

Global Id: T0600102021  
Action Type: Other  
Date: 11/25/1997  
Action: Leak Reported

Global Id: T0600102021  
Action Type: Other  
Date: 11/28/1994  
Action: Leak Discovery

Global Id: T0600102021  
Action Type: Other  
Date: 11/28/1996  
Action: Leak Stopped

LUST:

Global Id: T0600102021  
Status: Completed - Case Closed  
Status Date: 06/09/1998

Global Id: T0600102021  
Status: Open - Case Begin Date  
Status Date: 11/28/1994

Global Id: T0600102021

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ROGER'S GARAGE (Continued)**

**S103653811**

Status: Open - Site Assessment  
Status Date: 11/30/1994

LUST REG 2:

Region: 2  
Facility Id: 01-2201  
Facility Status: Case Closed  
Case Number: 0429  
How Discovered: OM  
Leak Cause: Other Cause  
Leak Source: Piping  
Date Leak Confirmed: 11/30/1994  
Oversight Program: LUST  
Prelim. Site Assessment Workplan Submitted: Not reported  
Preliminary Site Assessment Began: Not reported  
Pollution Characterization Began: Not reported  
Pollution Remediation Plan Submitted: Not reported  
Date Remediation Action Underway: Not reported  
Date Post Remedial Action Monitoring Began: Not reported

HIST CORTESE:

Region: CORTESE  
Facility County Code: 1  
Reg By: LTNKA  
Reg Id: 01-2201

**P81**  
**West**  
**1/4-1/2**  
**0.309 mi.**  
**1632 ft.**

**B & K DELIVERY SERVICE (EAR)**  
**33715 11TH ST**  
**UNION CITY, CA 94587**  
**Site 1 of 2 in cluster P**

**LUST** **S101306836**  
**HIST CORTESE** **N/A**  
**CERS**

**Relative:**  
**Lower**  
**Actual:**  
**63 ft.**

LUST:

Lead Agency: ALAMEDA COUNTY WATER DISTRICT  
Case Type: LUST Cleanup Site  
Geo Track: [http://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=T0600100134](http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600100134)  
Global Id: T0600100134  
Latitude: 37.597122  
Longitude: -122.023834  
Status: Completed - Case Closed  
Status Date: 01/18/2001  
Case Worker: Not reported  
RB Case Number: 01-0145  
Local Agency: Not reported  
File Location: Not reported  
Local Case Number: 0174  
Potential Media Affect: Other Groundwater (uses other than drinking water)  
Potential Contaminants of Concern: Gasoline  
Site History: Not reported

LUST:

Global Id: T0600100134  
Contact Type: Regional Board Caseworker  
Contact Name: Regional Water Board  
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)  
Address: 1515 CLAY ST SUITE 1400

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**B & K DELIVERY SERVICE (EAR) (Continued)**

**S101306836**

City: OAKLAND  
Email: Not reported  
Phone Number: Not reported

LUST:

Global Id: T0600100134  
Action Type: Other  
Date: 05/13/1992  
Action: Leak Reported

Global Id: T0600100134  
Action Type: ENFORCEMENT  
Date: 05/12/2004  
Action: \* No Action

Global Id: T0600100134  
Action Type: ENFORCEMENT  
Date: 01/18/2001  
Action: Closure/No Further Action Letter

Global Id: T0600100134  
Action Type: REMEDIATION  
Date: 11/01/1991  
Action: Not reported

Global Id: T0600100134  
Action Type: Other  
Date: 11/14/1991  
Action: Leak Discovery

Global Id: T0600100134  
Action Type: Other  
Date: 11/14/1991  
Action: Leak Stopped

LUST:

Global Id: T0600100134  
Status: Completed - Case Closed  
Status Date: 01/18/2001

Global Id: T0600100134  
Status: Open - Case Begin Date  
Status Date: 11/14/1991

Global Id: T0600100134  
Status: Open - Site Assessment  
Status Date: 03/25/1996

HIST CORTESE:

Region: CORTESE  
Facility County Code: 1  
Reg By: LTNKA  
Reg Id: 01-0145

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**B & K DELIVERY SERVICE (EAR) (Continued)**

**S101306836**

**CERS TANKS:**

Site ID: 256446  
 CERS ID: T0600100134  
 Site Name: B & K DELIVERY SERVICE (EAR)  
 CERS Description: Leaking Underground Storage Tank Cleanup Site

**Affiliation:**

Affiliation Type Desc: Regional Board Caseworker  
 Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)  
 Entity Title: Not reported  
 Affiliation Address: 1515 CLAY ST SUITE 1400  
 Affiliation City: OAKLAND  
 Affiliation State: CA  
 Affiliation Country: Not reported  
 Affiliation Zip: Not reported  
 Affiliation Phone: Not reported

**P82**  
**West**  
**1/4-1/2**  
**0.309 mi.**  
**1632 ft.**

**B & K DELIVERY SERVICE (EAR)**  
**33715 11TH ST**  
**UNION CITY, CA 94587**

**LUST S103472444**  
**N/A**

**Site 2 of 2 in cluster P**

**Relative:**  
**Lower**  
**Actual:**  
**63 ft.**

**LUST REG 2:**  
 Region: 2  
 Facility Id: 01-0145  
 Facility Status: Case Closed  
 Case Number: 0174  
 How Discovered: Tank Closure  
 Leak Cause: UNK  
 Leak Source: UNK  
 Date Leak Confirmed: 3/25/1996  
 Oversight Program: LUST  
 Prelim. Site Assessment Wokplan Submitted: Not reported  
 Preliminary Site Assessment Began: Not reported  
 Pollution Characterization Began: Not reported  
 Pollution Remediation Plan Submitted: Not reported  
 Date Remediation Action Underway: Not reported  
 Date Post Remedial Action Monitoring Began: Not reported

**83**  
**South**  
**1/4-1/2**  
**0.329 mi.**  
**1738 ft.**

**UNION SQUARE CENTER**  
**14-44 UNION SQUARE**  
**UNION CITY, CA 94587**

**ENVIROSTOR S108991964**  
**CPS-SLIC N/A**  
**VCP**  
**CERS**

**Relative:**  
**Lower**  
**Actual:**  
**44 ft.**

**ENVIROSTOR:**  
 Facility ID: 70000158  
 Status: No Further Action  
 Status Date: 10/27/2006  
 Site Code: 201641  
 Site Type: Voluntary Cleanup  
 Site Type Detailed: Voluntary Cleanup  
 Acres: 6  
 NPL: NO

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**UNION SQUARE CENTER (Continued)**

**S108991964**

Regulatory Agencies: SMBRP  
Lead Agency: SMBRP  
Program Manager: Not reported  
Supervisor: Karen Toth  
Division Branch: Cleanup Berkeley  
Assembly: 20  
Senate: 10  
Special Program: Voluntary Cleanup Program  
Restricted Use: NO  
Site Mgmt Req: NONE SPECIFIED  
Funding: Responsible Party  
Latitude: 37.58894  
Longitude: -122.0163  
APN: 087-0019-001-25, 087-0019-001-26, 87-19-1-25  
Past Use: NONE, VEHICLE MAINTENANCE  
Potential COC: NONE SPECIFIED No Contaminants found  
Confirmed COC: No Contaminants found  
Potential Description: NMA  
Alias Name: Avavlon Bay Communities  
Alias Type: Alternate Name  
Alias Name: 087-0019-001-25  
Alias Type: APN  
Alias Name: 087-0019-001-26  
Alias Type: APN  
Alias Name: 87-19-1-25  
Alias Type: APN  
Alias Name: 110033620213  
Alias Type: EPA (FRS #)  
Alias Name: 201641  
Alias Type: Project Code (Site Code)  
Alias Name: 70000158  
Alias Type: Envirostor ID Number

**Completed Info:**

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Preliminary Endangerment Assessment Report  
Completed Date: 04/03/2006  
Comments: DTSC reviewed the Phase I/II and identified additional sampling which is needed for the site.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Remedial Investigation Workplan  
Completed Date: 06/06/2006  
Comments: DTSC approved a soil and groundwater sampling and analysis plan. The soil and groundwater will be sampled for volatile organic compounds, organochlorine pesticides, metals and TPH.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Fieldwork  
Completed Date: 07/07/2006  
Comments: Soil and groundwater sampling investigation completed.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Site Characterization Report

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**UNION SQUARE CENTER (Continued)**

**S108991964**

Completed Date: 10/27/2006  
Comments: Report documents that levels are within acceptable risk management range. No further action is required.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Voluntary Cleanup Agreement  
Completed Date: 03/15/2006  
Comments: The VCA is entered into between the property owner and DTSC for the purpose of investigation and cleanup of the property.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: \*Voluntary Cleanup Agreement Completion  
Completed Date: 10/27/2006  
Comments: Not reported

Future Area Name: Not reported  
Future Sub Area Name: Not reported  
Future Document Type: Not reported  
Future Due Date: Not reported  
Schedule Area Name: Not reported  
Schedule Sub Area Name: Not reported  
Schedule Document Type: Not reported  
Schedule Due Date: Not reported  
Schedule Revised Date: Not reported

**CPS-SLIC:**

Site Name: AVALONBAY AT UNION SQUARE  
Region: STATE  
**Facility Status: Completed - Case Closed**  
Status Date: 02/01/2008  
Global Id: SL0600125612  
Lead Agency: ALAMEDA COUNTY WATER DISTRICT  
Lead Agency Case Number: 0848  
Latitude: 37.5877244  
Longitude: -122.0169575  
Case Type: Cleanup Program Site  
Case Worker: EC  
Local Agency: ALAMEDA COUNTY WATER DISTRICT  
RB Case Number: 01S0686  
File Location: Local Agency  
Potential Media Affected: Soil  
Potential Contaminants of Concern: \* Petroleum - Other  
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

**VCP:**

Facility ID: 70000158  
Site Type: Voluntary Cleanup  
Site Type Detail: Voluntary Cleanup  
Site Mgmt. Req.: NONE SPECIFIED  
Acres: 6  
National Priorities List: NO  
Cleanup Oversight Agencies: SMBRP



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**UNION SQUARE CENTER (Continued)**

**S108991964**

Lead Agency: SMBRP  
Lead Agency Description: DTSC - Site Cleanup Program  
Project Manager: Not reported  
Supervisor: Karen Toth  
Division Branch: Cleanup Berkeley  
Site Code: 201641  
Assembly: 20  
Senate: 10  
Special Programs Code: Voluntary Cleanup Program  
Status: No Further Action  
Status Date: 10/27/2006  
Restricted Use: NO  
Funding: Responsible Party  
Lat/Long: 37.58894 / -122.0163  
APN: 087-0019-001-25, 087-0019-001-26, 87-19-1-25  
Past Use: NONE, VEHICLE MAINTENANCE  
Potential COC: NONE SPECIFIED,31000  
Confirmed COC: 31000  
Potential Description: NMA  
Alias Name: Avavlon Bay Communities  
Alias Type: Alternate Name  
Alias Name: 087-0019-001-25  
Alias Type: APN  
Alias Name: 087-0019-001-26  
Alias Type: APN  
Alias Name: 87-19-1-25  
Alias Type: APN  
Alias Name: 110033620213  
Alias Type: EPA (FRS #)  
Alias Name: 201641  
Alias Type: Project Code (Site Code)  
Alias Name: 70000158  
Alias Type: Envirostor ID Number

**Completed Info:**

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Preliminary Endangerment Assessment Report  
Completed Date: 04/03/2006  
Comments: DTSC reviewed the Phase I/II and identified additional sampling which is needed for the site.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Remedial Investigation Workplan  
Completed Date: 06/06/2006  
Comments: DTSC approved a soil and groundwater sampling and analysis plan. The soil and groundwater will be sampled for volatile organic compounds, organochlorine pesticides, metals and TPH.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Fieldwork  
Completed Date: 07/07/2006  
Comments: Soil and groundwater sampling investigation completed.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**UNION SQUARE CENTER (Continued)**

**S108991964**

Completed Document Type: Site Characterization Report  
Completed Date: 10/27/2006  
Comments: Report documents that levels are within acceptable risk management range. No further action is required.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Voluntary Cleanup Agreement  
Completed Date: 03/15/2006  
Comments: The VCA is entered into between the property owner and DTSC for the purpose of investigation and cleanup of the property.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: \*Voluntary Cleanup Agreement Completion  
Completed Date: 10/27/2006  
Comments: Not reported

Future Area Name: Not reported  
Future Sub Area Name: Not reported  
Future Document Type: Not reported  
Future Due Date: Not reported  
Schedule Area Name: Not reported  
Schedule Sub Area Name: Not reported  
Schedule Document Type: Not reported  
Schedule Due Date: Not reported  
Schedule Revised Date: Not reported

**CERS TANKS:**

Site ID: 202958  
CERS ID: SL0600125612  
Site Name: AVALONBAY AT UNION SQUARE  
CERS Description: Cleanup Program Site

**Affiliation:**

Affiliation Type Desc: Local Agency Caseworker  
Entity Name: EILEEN CHEN - ALAMEDA COUNTY WATER DISTRICT  
Entity Title: Not reported  
Affiliation Address: 43885 SOUTH GRIMMER BLVD.  
Affiliation City: FREMONT  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Regional Board Caseworker  
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)  
Entity Title: Not reported  
Affiliation Address: 1515 CLAY ST SUITE 1400  
Affiliation City: OAKLAND  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

84  
WNW  
1/4-1/2  
0.348 mi.  
1835 ft.

ALAMEDA COUNTY MOSQUITO ABATEMENT D  
33611 10TH ST  
UNION CITY, CA 94587

CPS-SLIC  
Alameda County CS  
HIST UST  
CERS

S106446495  
N/A

Relative:  
Higher  
Actual:  
67 ft.

CPS-SLIC:  
Site Name: ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT  
Region: STATE  
**Facility Status: Completed - Case Closed**  
Status Date: 11/03/1998  
Global Id: SL0600137794  
Lead Agency: ALAMEDA COUNTY LOP  
Lead Agency Case Number: RO0002719  
Latitude: 37.598339  
Longitude: -122.024105  
Case Type: Cleanup Program Site  
Case Worker: Not reported  
Local Agency: Not reported  
RB Case Number: NA  
File Location: All Files are on GeoTracker or in the Local Agency Database  
Potential Media Affected: Other Groundwater (uses other than drinking water)  
Potential Contaminants of Concern: Not reported  
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

Site Name: ALAMEDA CO. MOSQUITO ABATEMENT DISTRICT  
Region: STATE  
**Facility Status: Completed - Case Closed**  
Status Date: 05/13/1998  
Global Id: T10000000698  
Lead Agency: ALAMEDA COUNTY WATER DISTRICT  
Lead Agency Case Number: 0411  
Latitude: 37.598327  
Longitude: -122.024026  
Case Type: Cleanup Program Site  
Case Worker: MH  
Local Agency: ALAMEDA COUNTY WATER DISTRICT  
RB Case Number: Not reported  
File Location: Not reported  
Potential Media Affected: Not reported  
Potential Contaminants of Concern: Not reported  
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

SLIC REG 2:  
Region: 2  
Facility ID: Not reported  
Facility Status: Case Closed  
Date Closed: Not reported  
Local Case #: Not reported  
How Discovered: Not reported  
Leak Cause: Not reported  
Leak Source: Not reported  
Date Confirmed: Not reported  
Date Prelim Site Assmnt Workplan Submitted: Not reported  
Date Preliminary Site Assessment Began: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ALAMEDA COUNTY MOSQUITO ABATEMENT D (Continued)**

**S106446495**

Date Pollution Characterization Began: Not reported  
Date Remediation Plan Submitted: Not reported  
Date Remedial Action Underway: Not reported  
Date Post Remedial Action Monitoring Began: Not reported

Alameda County CS:

Status: Case Closed  
Record Id: RO0002719  
PE: 5502  
Facility Status: Case Closed  
Latitude: 37.598535834  
Longitude: -122.02410596

HIST UST:

File Number: 00035CF8  
URL: <http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00035CF8.pdf>  
Region: Not reported  
Facility ID: Not reported  
Facility Type: Not reported  
Other Type: Not reported  
Contact Name: Not reported  
Telephone: Not reported  
Owner Name: Not reported  
Owner Address: Not reported  
Owner City,St,Zip: Not reported  
Total Tanks: Not reported

Tank Num: Not reported  
Container Num: Not reported  
Year Installed: Not reported  
Tank Capacity: Not reported  
Tank Used for: Not reported  
Type of Fuel: Not reported  
Container Construction Thickness: Not reported  
Leak Detection: Not reported

Click here for Geo Tracker PDF:

CERS TANKS:

Site ID: 195019  
CERS ID: SL0600137794  
Site Name: ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT  
CERS Description: Cleanup Program Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker  
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)  
Entity Title: Not reported  
Affiliation Address: 1515 CLAY ST SUITE 1400  
Affiliation City: OAKLAND  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

ALAMEDA COUNTY MOSQUITO ABATEMENT D (Continued)

S106446495

Site ID: 205046  
CERS ID: T1000000698  
Site Name: ALAMEDA CO. MOSQUITO ABATEMENT DISTRICT  
CERS Description: Cleanup Program Site  
Affiliation:  
Affiliation Type Desc: Local Agency Caseworker  
Entity Name: MIKEL HALLIWELL - ALAMEDA COUNTY WATER DISTRICT  
Entity Title: Not reported  
Affiliation Address: 43885 SOUTH GRIMMER BLVD  
Affiliation City: FREMONT  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

85  
SE  
1/4-1/2  
0.361 mi.  
1906 ft.

PENGO CORPORATION  
710 ZWISSIG WAY  
UNION CITY, CA 94587

CPS-SLIC 1005774501  
FINDS N/A  
EMI  
CERS

Relative:  
Lower  
Actual:  
48 ft.

CPS-SLIC:  
Site Name: PENGO CORPORATION  
Region: STATE  
Facility Status: **Completed - Case Closed**  
Status Date: 12/19/1997  
Global Id: SL0600126187  
Lead Agency: ALAMEDA COUNTY WATER DISTRICT  
Lead Agency Case Number: 0298  
Latitude: 37.590372  
Longitude: -122.00985  
Case Type: Cleanup Program Site  
Case Worker: Not reported  
Local Agency: Not reported  
RB Case Number: 01S0469  
File Location: Not reported  
Potential Media Affected: Not reported  
Potential Contaminants of Concern: Not reported  
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

SLIC REG 2:  
Region: 2  
Facility ID: Not reported  
Facility Status: Case Closed  
Date Closed: Not reported  
Local Case #: Not reported  
How Discovered: Not reported  
Leak Cause: Not reported  
Leak Source: Not reported  
Date Confirmed: Not reported  
Date Prelim Site Assmnt Workplan Submitted: Not reported  
Date Preliminary Site Assessment Began: Not reported  
Date Pollution Characterization Began: Not reported  
Date Remediation Plan Submitted: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PENGO CORPORATION (Continued)**

**1005774501**

Date Remedial Action Underway: Not reported  
Date Post Remedial Action Monitoring Began: Not reported

**FINDS:**

Registry ID: 110002430030  
Environmental Interest/Information System  
HAZARDOUS AIR POLLUTANT MAJOR  
STATE MASTER

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

**EMI:**

Year: 1995  
County Code: 1  
Air Basin: SF  
Facility ID: 4511  
Air District Name: BA  
SIC Code: 3532  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 1  
Reactive Organic Gases Tons/Yr: 1  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 1  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 1996  
County Code: 1  
Air Basin: SF  
Facility ID: 4511  
Air District Name: BA  
SIC Code: 3532  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 1  
Reactive Organic Gases Tons/Yr: 1  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 1  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 1997  
County Code: 1  
Air Basin: SF  
Facility ID: 4511  
Air District Name: BA

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PENGO CORPORATION (Continued)**

**1005774501**

SIC Code: 3532  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 1  
Reactive Organic Gases Tons/Yr: 0  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 1  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 1998  
County Code: 1  
Air Basin: SF  
Facility ID: 4511  
Air District Name: BA  
SIC Code: 3532  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0  
Reactive Organic Gases Tons/Yr: 0  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 1999  
County Code: 1  
Air Basin: SF  
Facility ID: 4511  
Air District Name: BA  
SIC Code: 3532  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0  
Reactive Organic Gases Tons/Yr: 0  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2000  
County Code: 1  
Air Basin: SF  
Facility ID: 4511  
Air District Name: BA  
SIC Code: 3532  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0  
Reactive Organic Gases Tons/Yr: 0

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PENGO CORPORATION (Continued)**

**1005774501**

Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smllr Tons/Yr:0

**CERS TANKS:**

Site ID: 213521  
CERS ID: 110002430030  
Site Name: PENGO CORPORATION  
CERS Description: US EPA Air Emission Inventory System (EIS)

**Affiliation:**

Affiliation Type Desc: Regional Board Caseworker  
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)  
Entity Title: Not reported  
Affiliation Address: 1515 CLAY ST SUITE 1400  
Affiliation City: OAKLAND  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Regional Board Caseworker  
Entity Name: CHERIE MCCAULOU SAN FRANCISCO BAY RWQCB REGN  
Entity Title: Not reported  
Affiliation Address: 1515 CLAY STREETNA SUITE 1400  
Affiliation City: OAKLAND  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Site ID: 213521  
CERS ID: SL0600126187  
Site Name: PENGO CORPORATION  
CERS Description: Cleanup Program Site

**Affiliation:**

Affiliation Type Desc: Regional Board Caseworker  
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)  
Entity Title: Not reported  
Affiliation Address: 1515 CLAY ST SUITE 1400  
Affiliation City: OAKLAND  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Regional Board Caseworker  
Entity Name: CHERIE MCCAULOU SAN FRANCISCO BAY RWQCB REGN  
Entity Title: Not reported  
Affiliation Address: 1515 CLAY STREETNA SUITE 1400  
Affiliation City: OAKLAND  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported



Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

EDR ID Number  
 EPA ID Number

---

**PENGO CORPORATION (Continued)**

**1005774501**

Affiliation Phone: Not reported

**Q86**  
 North  
 1/4-1/2  
 0.386 mi.  
 2036 ft.

**UNION CITY TEEN CENTER**  
**33623 MISSION BOULEVARD**  
**UNION CITY, CA 94587**

**LUST S106229857**  
**N/A**

**Site 1 of 2 in cluster Q**

**Relative:**  
**Higher**  
**Actual:**  
**94 ft.**

**LUST REG 2:**  
 Region: 2  
 Facility Id: 01-1536  
 Facility Status: Pollution Characterization  
 Case Number: 0156  
 How Discovered: Tank Closure  
 Leak Cause: Structure Failure  
 Leak Source: Tank  
 Date Leak Confirmed: Not reported  
 Oversight Program: LUST  
 Prelim. Site Assessment Workplan Submitted: Not reported  
 Preliminary Site Assessment Began: 6/17/1985  
 Pollution Characterization Began: 5/19/1986  
 Pollution Remediation Plan Submitted: Not reported  
 Date Remediation Action Underway: Not reported  
 Date Post Remedial Action Monitoring Began: Not reported

**Q87**  
 North  
 1/4-1/2  
 0.386 mi.  
 2036 ft.

**UNION CITY TEEN CENTER**  
**33623 MISSION BOULEVARD**  
**UNION CITY, CA 94587**

**LUST S104162350**  
**HIST CORTESE N/A**  
**CERS**

**Site 2 of 2 in cluster Q**

**Relative:**  
**Higher**  
**Actual:**  
**94 ft.**

**LUST:**  
 Lead Agency: SAN FRANCISCO BAY RWQCB (REGION 2)  
 Case Type: LUST Cleanup Site  
 Geo Track: [http://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=T0600101419](http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600101419)  
 Global Id: T0600101419  
 Latitude: 37.6033239  
 Longitude: -122.0173129  
 Status: Completed - Case Closed  
 Status Date: 06/24/2016  
 Case Worker: RS  
 RB Case Number: 01-1536  
 Local Agency: UNION CITY, CITY OF  
 File Location: Local Agency  
 Local Case Number: TT0156  
 Potential Media Affect: Other Groundwater (uses other than drinking water)  
 Potential Contaminants of Concern: Gasoline  
 Site History: The site is located on the western side of Mission Boulevard in Union City. It was originally a Mohawk Gas Station. Currently, the City of Union City owns the property and operates a Teen Employment Center at the site. The surrounding properties are residential/commercial (see attached Figure 1 Site Map). In July, 1985, three 1,000-gallon underground storage tanks were removed from the site. The tanks were likely more than 20 years in age. A soil boring was installed at the site and soil and groundwater samples documented elevated petroleum

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**UNION CITY TEEN CENTER (Continued)**

**S104162350**

hydrocarbon concentrations.

LUST:

Global Id: T0600101419  
Contact Type: Regional Board Caseworker  
Contact Name: BARBARA SIEMINSKI  
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)  
Address: 1515 CLAY STREET, SUITE 1400  
City: OAKLAND  
Email: bsieminski@waterboards.ca.gov  
Phone Number: Not reported

Global Id: T0600101419  
Contact Type: Local Agency Caseworker  
Contact Name: RANGARAJAN SAMPATH  
Organization Name: ALAMEDA COUNTY WATER DISTRICT  
Address: 43885 SOUTH GRIMMER BLVD  
City: FREMONT  
Email: rangarajan.sampath@acwd.com  
Phone Number: Not reported

LUST:

Global Id: T0600101419  
Action Type: ENFORCEMENT  
Date: 06/20/2016  
Action: Technical Correspondence / Assistance / Other

Global Id: T0600101419  
Action Type: Other  
Date: 08/28/1985  
Action: Leak Reported

Global Id: T0600101419  
Action Type: ENFORCEMENT  
Date: 01/03/2006  
Action: Technical Correspondence / Assistance / Other

Global Id: T0600101419  
Action Type: ENFORCEMENT  
Date: 06/21/2016  
Action: LOP Case Closure Summary to RB

Global Id: T0600101419  
Action Type: ENFORCEMENT  
Date: 06/24/2016  
Action: Closure/No Further Action Letter

Global Id: T0600101419  
Action Type: ENFORCEMENT  
Date: 04/15/2016  
Action: Technical Correspondence / Assistance / Other

Global Id: T0600101419  
Action Type: ENFORCEMENT  
Date: 07/30/2009  
Action: Technical Correspondence / Assistance / Other

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**UNION CITY TEEN CENTER (Continued)**

**S104162350**

Global Id:	T0600101419
Action Type:	ENFORCEMENT
Date:	03/17/2010
Action:	Meeting
Global Id:	T0600101419
Action Type:	ENFORCEMENT
Date:	11/13/2012
Action:	File review
Global Id:	T0600101419
Action Type:	ENFORCEMENT
Date:	11/27/2013
Action:	Notification - Public Notice of Case Closure
Global Id:	T0600101419
Action Type:	ENFORCEMENT
Date:	04/23/2014
Action:	13267 Requirement
Global Id:	T0600101419
Action Type:	ENFORCEMENT
Date:	05/21/2014
Action:	Staff Letter
Global Id:	T0600101419
Action Type:	RESPONSE
Date:	09/17/2014
Action:	Well Destruction Report
Global Id:	T0600101419
Action Type:	Other
Date:	08/28/1985
Action:	Leak Discovery
Global Id:	T0600101419
Action Type:	Other
Date:	08/28/1985
Action:	Leak Stopped
LUST:	
Global Id:	T0600101419
Status:	Completed - Case Closed
Status Date:	06/24/2016
Global Id:	T0600101419
Status:	Open - Case Begin Date
Status Date:	06/17/1985
Global Id:	T0600101419
Status:	Open - Eligible for Closure
Status Date:	08/14/2013
Global Id:	T0600101419
Status:	Open - Site Assessment
Status Date:	06/17/1985

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**UNION CITY TEEN CENTER (Continued)**

**S104162350**

Global Id: T0600101419  
Status: Open - Site Assessment  
Status Date: 05/19/1986

**HIST CORTESE:**

Region: CORTESE  
Facility County Code: 1  
Reg By: LTNKA  
Reg Id: 01-1536

**CERS TANKS:**

Site ID: 249923  
CERS ID: T0600101419  
Site Name: UNION CITY TEEN CENTER  
CERS Description: Leaking Underground Storage Tank Cleanup Site

**Affiliation:**

Affiliation Type Desc: Regional Board Caseworker  
Entity Name: BARBARA SIEMINSKI - SAN FRANCISCO BAY RWQCB (REGION 2)  
Entity Title: Not reported  
Affiliation Address: 1515 CLAY STREET, SUITE 1400  
Affiliation City: OAKLAND  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Local Agency Caseworker  
Entity Name: RANGARAJAN SAMPATH - ALAMEDA COUNTY WATER DISTRICT  
Entity Title: Not reported  
Affiliation Address: 43885 SOUTH GRIMMER BLVD  
Affiliation City: FREMONT  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

**R88 MEEKS CAMPERS**  
**NNW 33509 MISSION BOULEVARD**  
**1/4-1/2 UNION CITY, CA 94587**

**LUST S102433257**  
**HIST CORTESE N/A**  
**CERS**

**0.448 mi.**  
**2368 ft.**

**Site 1 of 2 in cluster R**

**Relative:**  
**Higher**

**LUST:**

**Actual:**  
**99 ft.**

Lead Agency: ALAMEDA COUNTY WATER DISTRICT  
Case Type: LUST Cleanup Site  
Geo Track: [http://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=T0600101873](http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600101873)  
Global Id: T0600101873  
Latitude: 37.604287  
Longitude: -122.018319  
Status: Completed - Case Closed  
Status Date: 03/07/1995  
Case Worker: SDI  
RB Case Number: 01-2028  
Local Agency: ALAMEDA COUNTY WATER DISTRICT

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MEEKS CAMPERS (Continued)**

**S102433257**

File Location: Not reported  
Local Case Number: 0289  
Potential Media Affect: Soil  
Potential Contaminants of Concern: Gasoline  
Site History: Not reported

LUST:

Global Id: T0600101873  
Contact Type: Regional Board Caseworker  
Contact Name: Regional Water Board  
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)  
Address: 1515 CLAY ST SUITE 1400  
City: OAKLAND  
Email: Not reported  
Phone Number: Not reported

Global Id: T0600101873  
Contact Type: Local Agency Caseworker  
Contact Name: STEVEN D. INN  
Organization Name: ALAMEDA COUNTY WATER DISTRICT  
Address: 43885 SOUTH GRIMMER BOULEVARD  
City: FREMONT  
Email: steven.inn@acwd.com  
Phone Number: Not reported

LUST:

Global Id: T0600101873  
Action Type: Other  
Date: 07/08/1994  
Action: Leak Reported

Global Id: T0600101873  
Action Type: REMEDIATION  
Date: 09/23/1994  
Action: Excavation

Global Id: T0600101873  
Action Type: Other  
Date: 07/08/1994  
Action: Leak Discovery

Global Id: T0600101873  
Action Type: Other  
Date: 07/08/1994  
Action: Leak Stopped

LUST:

Global Id: T0600101873  
Status: Completed - Case Closed  
Status Date: 03/07/1995

Global Id: T0600101873  
Status: Open - Case Begin Date  
Status Date: 12/23/1985

Global Id: T0600101873  
Status: Open - Site Assessment

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MEEKS CAMPERS (Continued)**

**S102433257**

Status Date: 12/23/1985

**LUST REG 2:**

Region: 2  
Facility Id: 01-2028  
Facility Status: Case Closed  
Case Number: 0289  
How Discovered: OM  
Leak Cause: Overfill  
Leak Source: Other Source  
Date Leak Confirmed: 12/23/1985  
Oversight Program: LUST  
Prelim. Site Assessment Wokplan Submitted: Not reported  
Preliminary Site Assessment Began: Not reported  
Pollution Characterization Began: Not reported  
Pollution Remediation Plan Submitted: Not reported  
Date Remediation Action Underway: Not reported  
Date Post Remedial Action Monitoring Began: Not reported

**HIST CORTESE:**

Region: CORTESE  
Facility County Code: 1  
Reg By: LTNKA  
Reg Id: 01-2028

**CERS TANKS:**

Site ID: 210459  
CERS ID: T0600101873  
Site Name: MEEKS CAMPERS  
CERS Description: Leaking Underground Storage Tank Cleanup Site

**Affiliation:**

Affiliation Type Desc: Local Agency Caseworker  
Entity Name: MICHELLE A. MYERS - ALAMEDA COUNTY WATER DISTRICT  
Entity Title: Not reported  
Affiliation Address: 43885 SOUTH GRIMMER BOULEVARD  
Affiliation City: FREMONT  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Regional Board Caseworker  
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)  
Entity Title: Not reported  
Affiliation Address: 1515 CLAY ST SUITE 1400  
Affiliation City: OAKLAND  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Site

Database(s)

EDR ID Number  
 EPA ID Number

**S89**  
**ESE**  
**1/4-1/2**  
**0.451 mi.**  
**2380 ft.**

**CATELLUS - UNION CITY**  
**MISSION AT 7TH ST**  
**UNION CITY, CA 94587**

**HIST CORTESE**

**S102008147**  
**N/A**

**Relative:**  
**Lower**  
**Actual:**  
**61 ft.**

**HIST CORTESE:**  
 Region: CORTESE  
 Facility County Code: 1  
 Reg By: CALSI  
 Reg Id: 01010003

**R90**  
**NNW**  
**1/4-1/2**  
**0.452 mi.**  
**2387 ft.**

**PACIFIC BELL**  
**118 "E" STREET**  
**UNION CITY, CA 94587**  
**Site 2 of 2 in cluster R**

**RCRA-SQG**  
**LUST**  
**SWEEPS UST**  
**HIST UST**  
**HIST CORTESE**  
**CERS**

**1000251197**  
**CAT080020308**

**Relative:**  
**Higher**  
**Actual:**  
**98 ft.**

**RCRA-SQG:**  
 Date form received by agency: 09/01/1996  
 Facility name: PACIFIC BELL  
 Facility address: 118 "E" STREET  
 UNION CITY, CA 94587  
 EPA ID: CAT080020308  
 Mailing address: 2 NORTH SECOND ST ROOM 1125  
 SAN JOSE, CA 95113  
 Contact: Not reported  
 Contact address: Not reported  
 Contact country: US  
 Contact telephone: Not reported  
 Contact email: Not reported  
 EPA Region: 09  
 Classification: Small Small Quantity Generator  
 Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

**Owner/Operator Summary:**

Owner/operator name: THE PACIFIC TELEPHONE AND TELEGRAPH CO  
 Owner/operator address: NOT REQUIRED  
 NOT REQUIRED, ME 99999  
 Owner/operator country: Not reported  
 Owner/operator telephone: 415-555-1212  
 Owner/operator email: Not reported  
 Owner/operator fax: Not reported  
 Owner/operator extension: Not reported  
 Legal status: Private  
 Owner/Operator Type: Owner  
 Owner/Op start date: Not reported  
 Owner/Op end date: Not reported  
 Owner/operator name: NOT REQUIRED  
 Owner/operator address: NOT REQUIRED  
 NOT REQUIRED, ME 99999  
 Owner/operator country: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PACIFIC BELL (Continued)**

**1000251197**

Owner/operator telephone: 415-555-1212  
Owner/operator email: Not reported  
Owner/operator fax: Not reported  
Owner/operator extension: Not reported  
Legal status: Private  
Owner/Operator Type: Operator  
Owner/Op start date: Not reported  
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): No  
Recycler of hazardous waste: No  
Transporter of hazardous waste: No  
Treater, storer or disposer of HW: No  
Underground injection activity: No  
On-site burner exemption: No  
Furnace exemption: No  
Used oil fuel burner: No  
Used oil processor: No  
User oil refiner: No  
Used oil fuel marketer to burner: No  
Used oil Specification marketer: No  
Used oil transfer facility: No  
Used oil transporter: No

Historical Generators:

Date form received by agency: 01/19/1981  
Site name: PACIFIC BELL  
Classification: Large Quantity Generator

Violation Status: No violations found

LUST:

Lead Agency: ALAMEDA COUNTY WATER DISTRICT  
Case Type: LUST Cleanup Site  
Geo Track: [http://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=T0600101020](http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600101020)  
Global Id: T0600101020  
Latitude: 37.604123  
Longitude: -122.018535  
Status: Completed - Case Closed  
Status Date: 10/17/1995  
Case Worker: SZ  
RB Case Number: 01-1109  
Local Agency: ALAMEDA COUNTY WATER DISTRICT  
File Location: Not reported  
Local Case Number: 0149  
Potential Media Affect: Soil  
Potential Contaminants of Concern: Diesel  
Site History: Not reported

LUST:

Global Id: T0600101020  
Contact Type: Regional Board Caseworker  
Contact Name: Regional Water Board  
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)  
Address: 1515 CLAY ST SUITE 1400



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PACIFIC BELL (Continued)**

**1000251197**

City: OAKLAND  
Email: Not reported  
Phone Number: Not reported  
  
Global Id: T0600101020  
Contact Type: Local Agency Caseworker  
Contact Name: SELIM ZEYREK  
Organization Name: ALAMEDA COUNTY WATER DISTRICT  
Address: 43885 SOUTH GRIMMER BLVD  
City: FREMONT  
Email: selim.zeyrek@acwd.com  
Phone Number: Not reported

LUST:

Global Id: T0600101020  
Action Type: Other  
Date: 05/09/1986  
Action: Leak Reported

Global Id: T0600101020  
Action Type: Other  
Date: 05/09/1986  
Action: Leak Discovery

Global Id: T0600101020  
Action Type: Other  
Date: 05/09/1986  
Action: Leak Stopped

LUST:

Global Id: T0600101020  
Status: Completed - Case Closed  
Status Date: 10/17/1995

Global Id: T0600101020  
Status: Open - Case Begin Date  
Status Date: 05/09/1986

LUST REG 2:

Region: 2  
Facility Id: 01-1109  
Facility Status: Case Closed  
Case Number: 0149  
How Discovered: Tank Closure  
Leak Cause: Structure Failure  
Leak Source: Tank  
Date Leak Confirmed: Not reported  
Oversight Program: LUST  
Prelim. Site Assessment Workplan Submitted: Not reported  
Preliminary Site Assessment Began: Not reported  
Pollution Characterization Began: Not reported  
Pollution Remediation Plan Submitted: Not reported  
Date Remediation Action Underway: Not reported  
Date Post Remedial Action Monitoring Began: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PACIFIC BELL (Continued)**

**1000251197**

**SWEEPS UST:**

Status: Active  
Comp Number: 56940  
Number: 9  
Board Of Equalization: 44-001432  
Referral Date: 07-01-85  
Action Date: Not reported  
Created Date: 02-29-88  
Owner Tank Id: D-71-5K  
SWRCB Tank Id: 01-011-056940-000001  
Tank Status: A  
Capacity: 5000  
Active Date: 07-01-85  
Tank Use: M.V. FUEL  
STG: P  
Content: DIESEL  
Number Of Tanks: 1

**HIST UST:**

File Number: Not reported  
URL: Not reported  
Region: STATE  
Facility ID: 00000056940  
Facility Type: Other  
Other Type: SIC 4800  
Contact Name: E.J. KOEHLER  
Telephone: 4155426758  
Owner Name: PACIFIC BELL  
Owner Address: 370 THIRD STREET  
Owner City,St,Zip: SAN FRANCISCO, CA 94107  
Total Tanks: 0001  
  
Tank Num: 001  
Container Num: D-71-5K  
Year Installed: 1971  
Tank Capacity: 00005000  
Tank Used for: PRODUCT  
Type of Fuel: DIESEL  
Container Construction Thickness: Not reported  
Leak Detection: None

**HIST CORTESE:**

Region: CORTESE  
Facility County Code: 1  
Reg By: LTNKA  
Reg Id: 01-1109

**CERS TANKS:**

Site ID: 261033  
CERS ID: T0600101020  
Site Name: PACIFIC BELL FACILITY  
CERS Description: Leaking Underground Storage Tank Cleanup Site

**Affiliation:**

Affiliation Type Desc: Local Agency Caseworker  
Entity Name: SELIM ZEYREK - ALAMEDA COUNTY WATER DISTRICT

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PACIFIC BELL (Continued)**

**1000251197**

Entity Title: Not reported  
Affiliation Address: 43885 SOUTH GRIMMER BLVD  
Affiliation City: FREMONT  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Regional Board Caseworker  
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)  
Entity Title: Not reported  
Affiliation Address: 1515 CLAY ST SUITE 1400  
Affiliation City: OAKLAND  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

**S91  
ESE  
1/4-1/2  
0.484 mi.  
2555 ft.**

**CATELLUS DECOTO ROAD PROPERTIES  
34701 MISSION BOULVEVARD  
UNION CITY, CA 94587**

**CPS-SLIC S106446497  
CERS N/A**

**Site 2 of 3 in cluster S**

**Relative:  
Lower  
Actual:  
61 ft.**

CPS-SLIC:  
Site Name: CATELLUS DECOTO ROAD PROPERTIES  
Region: STATE  
**Facility Status: Completed - Case Closed**  
Status Date: 03/09/2000  
Global Id: SL0600159748  
Lead Agency: SAN FRANCISCO BAY RWQCB (REGION 2)  
Lead Agency Case Number: 0308  
Latitude: 37.592743  
Longitude: -122.005056  
Case Type: Cleanup Program Site  
Case Worker: UUU  
Local Agency: Not reported  
RB Case Number: 01S0348  
File Location: Regional Board  
Potential Media Affected: Not reported  
Potential Contaminants of Concern: Not reported  
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

**SLIC REG 2:**

Region: 2  
Facility ID: Not reported  
Facility Status: Case Closed  
Date Closed: Not reported  
Local Case #: Not reported  
How Discovered: Not reported  
Leak Cause: Not reported  
Leak Source: Not reported  
Date Confirmed: Not reported  
Date Prelim Site Assmnt Workplan Submitted: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CATELLUS DECOTO ROAD PROPERTIES (Continued)**

**S106446497**

Date Preliminary Site Assessment Began: Not reported  
Date Pollution Characterization Began: Not reported  
Date Remediation Plan Submitted: Not reported  
Date Remedial Action Underway: Not reported  
Date Post Remedial Action Monitoring Began: Not reported

**CERS TANKS:**

Site ID: 252141  
CERS ID: SL0600159748  
Site Name: CATELLUS DECOTO ROAD PROPERTIES  
CERS Description: Cleanup Program Site

**Affiliation:**

Affiliation Type Desc: Regional Board Caseworker  
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)  
Entity Title: Not reported  
Affiliation Address: 1515 CLAY ST SUITE 1400  
Affiliation City: OAKLAND  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

**T92  
WNW  
1/4-1/2  
0.492 mi.  
2596 ft.**

**UNION CITY INDUSTRIAL PARK  
SW CORNER OF RAILROAD AVE. AND D ST.  
UNION CITY, CA 94587**

**ENVIROSTOR S118756492  
VCP N/A**

**Site 1 of 2 in cluster T**

**Relative:  
Higher  
Actual:  
71 ft.**

**ENVIROSTOR:**  
Facility ID: 1750037  
Status: No Action Required  
Status Date: 08/06/2003  
Site Code: 201434  
Site Type: Voluntary Cleanup  
Site Type Detailed: Voluntary Cleanup  
Acres: 10.3  
NPL: NO  
Regulatory Agencies: SMBRP  
Lead Agency: SMBRP  
Program Manager: Janet Naito  
Supervisor: Barbara Cook  
Division Branch: Cleanup Berkeley  
Assembly: 20  
Senate: 10  
Special Program: Voluntary Cleanup Program  
Restricted Use: NO  
Site Mgmt Req: NONE SPECIFIED  
Funding: Responsible Party  
Latitude: 37.60082  
Longitude: -122.0257  
APN: 486-036-039-02, 486-036-040  
Past Use: ENGINE TESTING/REPAIR, MANUFACTURING - OTHER, VEHICLE MAINTENANCE  
Potential COC: Arsenic Chlordane DDD DDE DDT Endrin Lead Polychlorinated biphenyls (PCBs Polynuclear aromatic hydrocarbons (PAHs TPH-diesel TPH-MOTOR OIL Antimony and compounds Cadmium and compounds Dieldrin Heptachlor epoxide Nickel Zinc

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**UNION CITY INDUSTRIAL PARK (Continued)**

**S118756492**

Confirmed COC: Polychlorinated biphenyls (PCBs Polynuclear aromatic hydrocarbons (PAHs TPH-diesel Antimony and compounds Cadmium and compounds Dieldrin Heptachlor epoxide Nickel Arsenic Chlordane DDD DDE DDT Endrin Lead TPH-MOTOR OIL Zinc

Potential Description: OTH, SOIL, OTH, SOIL

Alias Name: Not reported

Alias Type: Not reported

Completed Info:

Completed Area Name: Not reported

Completed Sub Area Name: Not reported

Completed Document Type: Not reported

Completed Date: Not reported

Comments: Not reported

Future Area Name: Not reported

Future Sub Area Name: Not reported

Future Document Type: Not reported

Future Due Date: Not reported

Schedule Area Name: Not reported

Schedule Sub Area Name: Not reported

Schedule Document Type: Not reported

Schedule Due Date: Not reported

Schedule Revised Date: Not reported

VCP:

Facility ID: 1750037

Site Type: Voluntary Cleanup

Site Type Detail: Voluntary Cleanup

Site Mgmt. Req.: NONE SPECIFIED

Acres: 10.3

National Priorities List: NO

Cleanup Oversight Agencies: SMBRP

Lead Agency: SMBRP

Lead Agency Description: DTSC - Site Cleanup Program

Project Manager: Janet Naito

Supervisor: Barbara Cook

Division Branch: Cleanup Berkeley

Site Code: 201434

Assembly: 20

Senate: 10

Special Programs Code: Voluntary Cleanup Program

Status: No Action Required

Status Date: 08/06/2003

Restricted Use: NO

Funding: Responsible Party

Lat/Long: 37.60082 / -122.0257

APN: 486-036-039-02, 486-036-040

Past Use: ENGINE TESTING/REPAIR, MANUFACTURING - OTHER, VEHICLE MAINTENANCE

Potential COC: 30001, 30004, 30006, 30007, 30008, 30010, 30013, 30018, 30019, 30024, 3002502, 30058, 30108, 30207, 30309, 30407, 30594

Confirmed COC: 30018,30019,30024,30058,30108,30207,30309,30407,30001,30004,30006, 30007,30008,30010,30013,3002502,30594

Potential Description: OTH, SOIL, OTH, SOIL

Alias Name: Not reported

Alias Type: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**UNION CITY INDUSTRIAL PARK (Continued)**

**S118756492**

Completed Info:

Completed Area Name: Not reported  
Completed Sub Area Name: Not reported  
Completed Document Type: Not reported  
Completed Date: Not reported  
Comments: Not reported

Future Area Name: Not reported  
Future Sub Area Name: Not reported  
Future Document Type: Not reported  
Future Due Date: Not reported  
Schedule Area Name: Not reported  
Schedule Sub Area Name: Not reported  
Schedule Document Type: Not reported  
Schedule Due Date: Not reported  
Schedule Revised Date: Not reported

**T93**  
**WNW**  
**1/4-1/2**  
**0.496 mi.**  
**2619 ft.**

**STM INC**  
**33395 RAILROAD AVE**  
**UNION CITY, CA 94587**

**Site 2 of 2 in cluster T**

**RCRA-SQG 1000119319**  
**CPS-SLIC CAD981371032**  
**FINDS**  
**ECHO**  
**CERS**

**Relative:**  
**Higher**

RCRA-SQG:

**Actual:**  
**71 ft.**

Date form received by agency: 01/24/1986  
Facility name: STM INC  
Facility address: 33395 RAILROAD AVE  
UNION CITY, CA 94587  
EPA ID: CAD981371032  
Mailing address: RAILROAD AVE  
UNION CITY, CA 94587  
Contact: ENVIRONMENTAL MANAGER  
Contact address: 33395 RAILROAD AVE  
UNION CITY, CA 94587  
Contact country: US  
Contact telephone: 415-474-0420  
Contact email: Not reported  
EPA Region: 09  
Classification: Small Small Quantity Generator  
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name: STM INC  
Owner/operator address: NOT REQUIRED  
NOT REQUIRED, ME 99999  
Owner/operator country: Not reported  
Owner/operator telephone: 415-555-1212  
Owner/operator email: Not reported  
Owner/operator fax: Not reported  
Owner/operator extension: Not reported  
Legal status: Private  
Owner/Operator Type: Owner  
Owner/Op start date: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**STM INC (Continued)**

1000119319

Owner/Op end date: Not reported  
  
Owner/operator name: NOT REQUIRED  
Owner/operator address: NOT REQUIRED  
NOT REQUIRED, ME 99999  
  
Owner/operator country: Not reported  
Owner/operator telephone: 415-555-1212  
Owner/operator email: Not reported  
Owner/operator fax: Not reported  
Owner/operator extension: Not reported  
Legal status: Private  
Owner/Operator Type: Operator  
Owner/Op start date: Not reported  
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): No  
Recycler of hazardous waste: No  
Transporter of hazardous waste: No  
Treater, storer or disposer of HW: No  
Underground injection activity: No  
On-site burner exemption: No  
Furnace exemption: No  
Used oil fuel burner: No  
Used oil processor: No  
User oil refiner: No  
Used oil fuel marketer to burner: No  
Used oil Specification marketer: No  
Used oil transfer facility: No  
Used oil transporter: No

Violation Status: No violations found

CPS-SLIC:

Site Name: STM INC  
Region: STATE  
**Facility Status: Open - Site Assessment**  
Status Date: 02/06/1985  
Global Id: T0600191472  
Lead Agency: ALAMEDA COUNTY WATER DISTRICT  
Lead Agency Case Number: 0498  
Latitude: 37.6011187  
Longitude: -122.0258253  
Case Type: Cleanup Program Site  
Case Worker: MAM  
Local Agency: ALAMEDA COUNTY WATER DISTRICT  
RB Case Number: 01S0039  
File Location: Not reported  
Potential Media Affected: Other Groundwater (uses other than drinking water)  
Potential Contaminants of Concern: Not reported  
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

SLIC REG 2:

Region: 2

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**STM INC (Continued)**

**1000119319**

Facility ID: 01S0039  
Facility Status: Leak being confirmed  
Date Closed: Not reported  
Local Case #: 0498  
How Discovered: Tank Closure  
Leak Cause: UNK  
Leak Source: UNK  
Date Confirmed: 2/6/1985  
Date Prelim Site Assmnt Workplan Submitted: Not reported  
Date Preliminary Site Assessment Began: Not reported  
Date Pollution Characterization Began: Not reported  
Date Remediation Plan Submitted: Not reported  
Date Remedial Action Underway: Not reported  
Date Post Remedial Action Monitoring Began: Not reported

**FINDS:**

Registry ID: 110002684051

**Environmental Interest/Information System**

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

**STATE MASTER**

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

**ECHO:**

Envid: 1000119319  
Registry ID: 110002684051  
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110002684051>

**CERS TANKS:**

Site ID: 226238  
CERS ID: T0600191472  
Site Name: STM INC  
CERS Description: Cleanup Program Site

**Affiliation:**

Affiliation Type Desc: Local Agency Caseworker  
Entity Name: MICHELLE A. MYERS - ALAMEDA COUNTY WATER DISTRICT  
Entity Title: Not reported  
Affiliation Address: 43885 SOUTH GRIMMER BOULEVARD  
Affiliation City: FREMONT  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Regional Board Caseworker



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**STM INC (Continued)**

**1000119319**

Entity Name: Cherie McCaulou - SAN FRANCISCO BAY RWQCB (REGION 2)  
Entity Title: Not reported  
Affiliation Address: 1515 CLAY STREET, SUITE 1400  
Affiliation City: OAKLAND  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

**S94  
ESE  
1/2-1  
0.503 mi.  
2654 ft.**

**CATELLUS - UNION CITY  
MISSION AT 7TH STREETS  
UNION CITY, CA 94587**

**ENVIROSTOR S116165205  
N/A**

**Site 3 of 3 in cluster S**

**Relative:  
Lower  
Actual:  
60 ft.**

ENVIROSTOR:  
Facility ID: 1010003  
Status: Refer: RWQCB  
Status Date: 03/08/1996  
Site Code: Not reported  
Site Type: Historical  
Site Type Detailed: \* Historical  
Acres: Not reported  
NPL: NO  
Regulatory Agencies: RWQCB 2 - San Francisco Bay  
Lead Agency: RWQCB 2 - San Francisco Bay  
Program Manager: Not reported  
Supervisor: Referred - Not Assigned  
Division Branch: Cleanup Berkeley  
Assembly: 20  
Senate: 10  
Special Program: Not reported  
Restricted Use: NO  
Site Mgmt Req: NONE SPECIFIED  
Funding: Not reported  
Latitude: 37.59222  
Longitude: -122.0044  
APN: NONE SPECIFIED  
Past Use: NONE SPECIFIED  
Potential COC: \* HALOGENATED SOLVENTS \* Pesticides - Rinse Waters \* CONTAMINATED  
SOIL Lead  
Confirmed COC: NONE SPECIFIED  
Potential Description: NONE SPECIFIED  
Alias Name: Not reported  
Alias Type: Not reported

Completed Info:  
Completed Area Name: Not reported  
Completed Sub Area Name: Not reported  
Completed Document Type: Not reported  
Completed Date: Not reported  
Comments: Not reported

Future Area Name: Not reported  
Future Sub Area Name: Not reported  
Future Document Type: Not reported  
Future Due Date: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

CATELLUS - UNION CITY (Continued)

S116165205

Schedule Area Name: Not reported  
Schedule Sub Area Name: Not reported  
Schedule Document Type: Not reported  
Schedule Due Date: Not reported  
Schedule Revised Date: Not reported

U95  
ESE  
1/2-1  
0.678 mi.  
3580 ft.

GENERAL ELECTRIC COMPANY  
34863 MISSION BLVD  
UNION CITY, CA 94587

SEMS-ARCHIVE 1000214030  
CORRACTS CAT080012628  
RCRA-TSDF  
RCRA NonGen / NLR  
FINDS  
ECHO

Site 1 of 2 in cluster U

Relative:  
Lower

SEMS Archive:

Actual:  
50 ft.

Site ID: 0900335  
EPA ID: CAT080012628  
Cong District: 09  
FIPS Code: 06001  
FF: N  
NPL: Not on the NPL  
Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information

SEMS Archive Detail:

Region: 09  
Site ID: 0900335  
EPA ID: CAT080012628  
Site Name: GENERAL ELECTRIC CO  
NPL: N  
FF: N  
OU: 00  
Action Code: VS  
Action Name: ARCH SITE  
SEQ: 2  
Start Date: Not reported  
Finish Date: 2013-03-21 04:00:00  
Qual: Not reported  
Current Action Lead: EPA Perf In-Hse

Region: 09  
Site ID: 0900335  
EPA ID: CAT080012628  
Site Name: GENERAL ELECTRIC CO  
NPL: N  
FF: N  
OU: 00  
Action Code: VS  
Action Name: ARCH SITE  
SEQ: 1  
Start Date: Not reported  
Finish Date: 1996-01-23 05:00:00  
Qual: Not reported  
Current Action Lead: EPA Perf In-Hse

Region: 09  
Site ID: 0900335  
EPA ID: CAT080012628  
Site Name: GENERAL ELECTRIC CO  
NPL: N

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**GENERAL ELECTRIC COMPANY (Continued)**

**1000214030**

FF: N  
OU: 00  
Action Code: PA  
Action Name: PA  
SEQ: 1  
Start Date: Not reported  
Finish Date: 1991-07-16 04:00:00  
Qual: D  
Current Action Lead: EPA Perf

Region: 09  
Site ID: 0900335  
EPA ID: CAT080012628  
Site Name: GENERAL ELECTRIC CO  
NPL: N  
FF: N  
OU: 00  
Action Code: DS  
Action Name: DISCVRY  
SEQ: 1  
Start Date: 1988-02-19 05:00:00  
Finish Date: 1988-02-19 05:00:00  
Qual: Not reported  
Current Action Lead: St Perf

**CORRACTS:**

EPA ID: CAT080012628  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19980429  
Action: CA070NO - RFA Determination Of Need For An RFI, RFI is Not Necessary  
NAICS Code(s): 81149  
Other Personal and Household Goods Repair and Maintenance  
Original schedule date: 19980429  
Schedule end date: Not reported

EPA ID: CAT080012628  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19980429  
Action: CA050 - RFA Completed  
NAICS Code(s): 81149  
Other Personal and Household Goods Repair and Maintenance  
Original schedule date: 19980429  
Schedule end date: Not reported

**RCRA-TSDF:**

Date form received by agency: 12/09/1992  
Facility name: GENERAL ELECTRIC COMPANY  
Facility address: 34863 MISSION BLVD  
UNION CITY, CA 94587  
EPA ID: CAT080012628  
Mailing address: 5441 EAST FOURTEEN STREET  
OAKLAND, CA 94601  
Contact: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**GENERAL ELECTRIC COMPANY (Continued)**

**1000214030**

Contact address: Not reported  
Not reported  
Contact country: US  
Contact telephone: Not reported  
Contact email: Not reported  
EPA Region: 09  
Land type: Facility is not located on Indian land. Additional information is not known.  
Classification: TSD  
Description: Handler is engaged in the treatment, storage or disposal of hazardous waste  
Classification: Non-Generator  
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: PACIFIC STATES STEEL CORP.  
Owner/operator address: 34863 MISSION BLVD.  
UNION CITY, CA 94587  
Owner/operator country: Not reported  
Owner/operator telephone: 415-793-2111  
Owner/operator email: Not reported  
Owner/operator fax: Not reported  
Owner/operator extension: Not reported  
Legal status: Private  
Owner/Operator Type: Owner  
Owner/Op start date: Not reported  
Owner/Op end date: Not reported

Owner/operator name: GENERAL ELECTRIC COMPANY  
Owner/operator address: 5441 EAST 14TH STREET  
NOT REQUIRED, CA 99999  
Owner/operator country: Not reported  
Owner/operator telephone: 415-436-9550  
Owner/operator email: Not reported  
Owner/operator fax: Not reported  
Owner/operator extension: Not reported  
Legal status: Private  
Owner/Operator Type: Operator  
Owner/Op start date: Not reported  
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): No  
Recycler of hazardous waste: No  
Transporter of hazardous waste: No  
Treater, storer or disposer of HW: No  
Underground injection activity: No  
On-site burner exemption: No  
Furnace exemption: No  
Used oil fuel burner: No  
Used oil processor: No  
User oil refiner: No  
Used oil fuel marketer to burner: No  
Used oil Specification marketer: No  
Used oil transfer facility: No  
Used oil transporter: No

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**GENERAL ELECTRIC COMPANY (Continued)**

**1000214030**

Historical Generators:

Date form received by agency: 11/17/1980  
Site name: GENERAL ELECTRIC COMPANY  
Classification: Not a generator, verified

Corrective Action Summary:

Event date: 07/16/1991  
Event: LEAD AGENCY DETERMINATION

Event date: 07/16/1991  
Event: CA PRIORITIZATION-LOW CA PRIORITY

Event date: 07/16/1991  
Event: PA OR CERCLA INSPECTION

Event date: 03/27/1992  
Event: CA PRIORITIZATION-LOW CA PRIORITY

Event date: 03/27/1992  
Event: STABILIZATION MEASURES EVALUATION-FACILITY NOT AMENABLE TO STABILIZATION

Event date: 04/29/1998  
Event: RFA COMPLETED

Event date: 04/29/1998  
Event: DETERMINATION OF NEED FOR AN INVESTIGATION-INVESTIGATION IS NOT NECESSARY

Event date: Not reported  
Event: REEVALUATE IN FY

Violation Status: No violations found

Evaluation Action Summary:

Evaluation date: 09/08/1987  
Evaluation: FINANCIAL RECORD REVIEW  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 05/07/1987  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

RCRA NonGen / NLR:

Date form received by agency: 12/09/1992  
Facility name: GENERAL ELECTRIC COMPANY  
Facility address: 34863 MISSION BLVD  
UNION CITY, CA 94587  
EPA ID: CAT080012628  
Mailing address: 5441 EAST FOURTEEN STREET  
OAKLAND, CA 94601  
Contact: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**GENERAL ELECTRIC COMPANY (Continued)**

**1000214030**

Contact address: Not reported  
Not reported  
Contact country: US  
Contact telephone: Not reported  
Contact email: Not reported  
EPA Region: 09  
Land type: Facility is not located on Indian land. Additional information is not known.  
Classification: TSD  
Description: Handler is engaged in the treatment, storage or disposal of hazardous waste  
Classification: Non-Generator  
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: PACIFIC STATES STEEL CORP.  
Owner/operator address: 34863 MISSION BLVD.  
UNION CITY, CA 94587  
Owner/operator country: Not reported  
Owner/operator telephone: 415-793-2111  
Owner/operator email: Not reported  
Owner/operator fax: Not reported  
Owner/operator extension: Not reported  
Legal status: Private  
Owner/Operator Type: Owner  
Owner/Op start date: Not reported  
Owner/Op end date: Not reported

Owner/operator name: GENERAL ELECTRIC COMPANY  
Owner/operator address: 5441 EAST 14TH STREET  
NOT REQUIRED, CA 99999  
Owner/operator country: Not reported  
Owner/operator telephone: 415-436-9550  
Owner/operator email: Not reported  
Owner/operator fax: Not reported  
Owner/operator extension: Not reported  
Legal status: Private  
Owner/Operator Type: Operator  
Owner/Op start date: Not reported  
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): No  
Recycler of hazardous waste: No  
Transporter of hazardous waste: No  
Treater, storer or disposer of HW: No  
Underground injection activity: No  
On-site burner exemption: No  
Furnace exemption: No  
Used oil fuel burner: No  
Used oil processor: No  
User oil refiner: No  
Used oil fuel marketer to burner: No  
Used oil Specification marketer: No  
Used oil transfer facility: No  
Used oil transporter: No

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**GENERAL ELECTRIC COMPANY (Continued)**

**1000214030**

Historical Generators:

Date form received by agency: 11/17/1980  
Site name: GENERAL ELECTRIC COMPANY  
Classification: Not a generator, verified

Corrective Action Summary:

Event date: 07/16/1991  
Event: LEAD AGENCY DETERMINATION

Event date: 07/16/1991  
Event: CA PRIORITIZATION-LOW CA PRIORITY

Event date: 07/16/1991  
Event: PA OR CERCLA INSPECTION

Event date: 03/27/1992  
Event: CA PRIORITIZATION-LOW CA PRIORITY

Event date: 03/27/1992  
Event: STABILIZATION MEASURES EVALUATION-FACILITY NOT AMENABLE TO STABILIZATION

Event date: 04/29/1998  
Event: RFA COMPLETED

Event date: 04/29/1998  
Event: DETERMINATION OF NEED FOR AN INVESTIGATION-INVESTIGATION IS NOT NECESSARY

Event date: Not reported  
Event: REEVALUATE IN FY

Violation Status: No violations found

Evaluation Action Summary:

Evaluation date: 09/08/1987  
Evaluation: FINANCIAL RECORD REVIEW  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 05/07/1987  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

FINDS:

Registry ID: 110011662995

Environmental Interest/Information System

NCDB (National Compliance Data Base) supports implementation of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Toxic Substances Control Act (TSCA). The system tracks inspections in regions and states with cooperative agreements, enforcement actions,

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**GENERAL ELECTRIC COMPANY (Continued)**

**1000214030**

and settlements.

Registry ID: 110002945822

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1000214030  
 Registry ID: 110002945822  
 DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110002945822>

**U96**  
**ESE**  
**1/2-1**  
**0.678 mi.**  
**3580 ft.**

**PACIFIC STATES STEEL CORP CODISPOSAL SIT**  
**34863 MISSION BL**  
**UNION CITY, CA 94587**

**ENVIROSTOR** **S100941569**  
**SWF/LF** **N/A**  
**HWP**  
**CERS**

**Site 2 of 2 in cluster U**

**Relative:**  
**Lower**  
**Actual:**  
**50 ft.**

ENVIROSTOR:  
 Facility ID: 80001841  
 Status: Refer: SMBRP  
 Status Date: 03/30/2012  
 Site Code: Not reported  
 Site Type: Corrective Action  
 Site Type Detailed: Corrective Action  
 Acres: 0.5  
 NPL: NO  
 Regulatory Agencies: SMBRP, ALAMEDA COUNTY WATER DISTRICT, CITY OF UNION CITY  
 Lead Agency: SMBRP  
 Program Manager: Tom Price  
 Supervisor: Karen Toth  
 Division Branch: Cleanup Berkeley  
 Assembly: 20  
 Senate: 10  
 Special Program: Not reported  
 Restricted Use: NO  
 Site Mgmt Req: NONE SPECIFIED  
 Funding: Not reported  
 Latitude: 37.58720  
 Longitude: -122.0114  
 APN: NONE SPECIFIED  
 Past Use: EQUIPMENT/INSTRUMENT REPAIR  
 Potential COC: Polychlorinated biphenyls (PCBs)  
 Confirmed COC: Polychlorinated biphenyls (PCBs)  
 Potential Description: SOIL  
 Alias Name: CAT080012628  
 Alias Type: EPA Identification Number  
 Alias Name: 110002945822



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PACIFIC STATES STEEL CORP CODISPOSAL SIT (Continued)**

**S100941569**

Alias Type: EPA (FRS #)  
Alias Name: 01330031  
Alias Type: Envirostor ID Number  
Alias Name: 01330031  
Alias Type: Envirostor ID Number  
Alias Name: 01330031  
Alias Type: Envirostor ID Number  
Alias Name: 80001841  
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Interim Measures Questionnaire  
Completed Date: 03/27/1992  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: RCRA Facility Assessment Report  
Completed Date: 04/29/1998  
Comments: RCRA Facility Assessment Completed - This RFA has determined that no further investigation is required via the RCRA corrective action process

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Consent Order  
Completed Date: 04/29/1998  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Preliminary Assessment Report  
Completed Date: 07/16/1991  
Comments: Not reported

Future Area Name: Not reported  
Future Sub Area Name: Not reported  
Future Document Type: Not reported  
Future Due Date: Not reported  
Schedule Area Name: Not reported  
Schedule Sub Area Name: Not reported  
Schedule Document Type: Not reported  
Schedule Due Date: Not reported  
Schedule Revised Date: Not reported

SWF/LF (SWIS):

Facility ID: 01-CR-0023  
Lat/Long: 37.58801 / -122.01125  
Owner Name: Pacific States Steel Corporation  
Owner Telephone: Not reported  
Owner Address: Mr. Hans Lemcke  
Owner Address2: 1051 Kraftile Road  
Owner City,St,Zip: Fremont, CA 94536  
Operational Status: Closed  
Operator: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PACIFIC STATES STEEL CORP CODISPOSAL SIT (Continued)**

**S100941569**

Operator Phone: Not reported  
Operator Address: Not reported  
Operator Address2: Not reported  
Operator City,St,Zip: Not reported  
Permit Date: Not reported  
Permit Status: Not reported  
Permitted Acreage: \$0.00  
Activity: Solid Waste Disposal Site  
Regulation Status: Unpermitted  
Landuse Name: Not reported  
GIS Source: Map  
Category: Disposal  
Unit Number: 01  
Inspection Frequency: None  
Accepted Waste: Not reported  
Closure Date: 12/01/1996  
Closure Type: Actual  
Disposal Acreage: \$0.00  
SWIS Num: 01-CR-0023  
Waste Discharge Requirement Num: Not reported  
Program Type: 2136  
Permitted Throughput with Units: Not reported  
Actual Throughput with Units: Not reported  
Permitted Capacity with Units: Not reported  
Remaining Capacity: Not reported  
Remaining Capacity with Units: Not reported  
Lat/Long: 37.58801 / -122.01125

**HWP:**

EPA Id: CAT080012628  
Cleanup Status: PROTECTIVE FILER  
Latitude: 37.58720  
Longitude: -122.0114  
Facility Type: Historical - Non-Operating  
Facility Size: Not reported  
Team: Not reported  
Supervisor: Not reported  
Site Code: Not reported  
Assembly District: 20  
Senate District: 10  
Public Information Officer: Not reported  
Public Information Officer: Not reported

**Activities:**

EPA Id: CAT080012628  
Facility Type: Historical - Non-Operating  
Unit Names: CONTAIN1  
Event Description: Protective Filer Status - PROTECTIVE FILER (RECEIVED)  
Actual Date: 01/06/1982

EPA Id: CAT080012628  
Facility Type: Historical - Non-Operating  
Unit Names: CONTAIN1  
Event Description: Protective Filer Status - PROTECTIVE FILER (APPROVED)  
Actual Date: 01/13/1982

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PACIFIC STATES STEEL CORP CODISPOSAL SIT (Continued)**

**S100941569**

Alias:

EPA Id: CAT080012628  
Facility Type: Historical - Non-Operating  
Alias Type: FRS  
Alias: 110002945822

CERS TANKS:

Site ID: 256211  
CERS ID: CAT080012628  
Site Name: GENERAL ELECTRIC COMPANY  
CERS Description: Hazardous Waste

Affiliation:

Affiliation Type Desc: Facility Owner  
Entity Name: PACIFIC STATES STEEL CORP.  
Entity Title: Not reported  
Affiliation Address: 34863 MISSION BLVD.  
Affiliation City: UNION CITY  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 945870000  
Affiliation Phone: 4157932111

Affiliation Type Desc: Facility Contact  
Entity Name: General Electric Company  
Entity Title: Not reported  
Affiliation Address: 5441 EAST 14TH STREET  
Affiliation City: OAKLAND  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 946010000  
Affiliation Phone: 4154369550

Site ID: 510788  
CERS ID: 01-CR-0023  
Site Name: PACIFIC STATES STEEL CORP CODISPOSAL SIT  
CERS Description: Solid Waste and Recycle Sites

Affiliation:

Affiliation Type Desc: Legal Owner  
Entity Name: Pacific States Steel Corporation  
Entity Title: Not reported  
Affiliation Address: Mr. Hans Lemcke1051 Krafftile Road  
Affiliation City: Fremont  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94536  
Affiliation Phone: Not reported

Site ID: 485702  
CERS ID: 110041558828  
Site Name: PACIFIC STATES STEEL CORP CODISPOSAL SIT  
CERS Description: US EPA Air Emission Inventory System (EIS)

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**97**  
**SSE**  
**1/2-1**  
**0.694 mi.**  
**3664 ft.**

**PACIFIC STATES STEEL - PHASE III**  
**35124 ALVARADO-NILES ROAD**  
**UNION CITY, CA 94587**

**RESPONSE**  
**ENVIROSTOR**  
**HIST Cal-Sites**  
**DEED**  
**CA BOND EXP. PLAN**  
**Cortese**  
**CERS**

**S100833250**  
**N/A**

**Relative:**  
**Lower**

**Actual:**  
**48 ft.**

**AWP:**

AWP Facility ID: 01330031  
 Region Code: 2  
 Region: BERKELEY  
 SMBR Branch Code: NC  
 SMBR Branch Unit: NORTH COAST  
 Site Name.: Not reported  
 Current Status Date: 12301993  
 Current Status: ANNUAL WORKPLAN - ACTIVE SITE  
 Lead Agency Code: DTSC  
 Lead Agency: DEPT OF TOXIC SUBSTANCES CONTROL  
 Facility Type: responsible party  
 Awp Site Type: RESPONSIBLE PARTY  
 NPL: Not Listed  
 Tier Of AWP Site: Not reported  
 Source Of Funding: Not reported  
 Responsible Staff Member: HATIQEE  
 Supervisor Responsible: Not reported  
 SIC Code: 33  
 Facility SIC: MANU - PRIMARY METAL INDUSTRIES  
 RWQCB Code: SF  
 RWQCB Associated With Site: SAN FRANCISCO BAY  
 Site Access Controlled: Not reported  
 Site Listed HWS List: Not reported  
 Hazard Ranking Score: Not reported  
 Date Site Hazard Ranked: Not reported  
 Groundwater Contamination: Not reported  
 # Of Contamination Sources: 0  
 Lat/Long: Not reported  
 Lat/Long (dms): 0 0 0 / 0 0 0  
 Lat/long Method: Not reported  
 Description Of Entity: Not reported  
 State Assembly Distt Code: 20  
 State Senate District: 10

**RESPONSE:**

Facility ID: 1330031  
 Site Type: State Response  
 Site Type Detail: State Response or NPL  
 Acres: 62.6  
 National Priorities List: NO  
 Cleanup Oversight Agencies: SMBRP, ALAMEDA COUNTY WATER DISTRICT, CITY OF UNION CITY  
 Lead Agency Description: DTSC - Site Cleanup Program  
 Project Manager: Tom Price  
 Supervisor: Janet Naito  
 Division Branch: Cleanup Berkeley  
 Site Code: 202135  
 Site Mgmt. Req.: REM, DAY, ELD, HOS, LUC, EX, NOWN, NDAM, NUSE, NDEV, NSUB, EXT, HS, SCH, FOOD, COV, REM, DAY, ELD, HOS, LUC, NOWN, NDAM, NUSE, NDEV, NSUB, EXT, HS, SCH, FOOD, COV, RES  
 Assembly: 20

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PACIFIC STATES STEEL - PHASE III (Continued)**

**S100833250**

Senate: 10  
Special Program Status: Not reported  
Status: Certified / Operation & Maintenance  
Status Date: 09/22/2006  
Restricted Use: YES  
Funding: Responsible Party  
Latitude: 37.58439  
Longitude: -122.0096  
APN: 87-11-6, 87-11-7-2, 87-17-1, 87-17-2  
Past Use: MANUFACTURING - METAL  
Potential COC : Arsenic Asbestos Containing Materials (ACM Lead Polychlorinated biphenyls (PCBs TPH-diesel TPH-MOTOR OIL Cadmium and compounds Polynuclear aromatic hydrocarbons (PAHs  
Confirmed COC: Asbestos Containing Materials (ACM Polynuclear aromatic hydrocarbons (PAHs Polychlorinated biphenyls (PCBs TPH-diesel Cadmium and compounds Arsenic Lead TPH-MOTOR OIL  
Potential Description: AQUI, SOIL  
Alias Name: Not reported  
Alias Type: Not reported  
Completed Info:  
Completed Area Name: Not reported  
Completed Sub Area Name: Not reported  
Completed Document Type: Not reported  
Completed Date: Not reported  
Comments: Not reported  
Future Area Name: Not reported  
Future Sub Area Name: Not reported  
Future Document Type: Not reported  
Future Due Date: Not reported  
Schedule Area Name: Not reported  
Schedule Sub Area Name: Not reported  
Schedule Document Type: Not reported  
Schedule Due Date: Not reported  
Schedule Revised Date: Not reported  
Facility ID: 1330042  
Site Type: State Response  
Site Type Detail: State Response or NPL  
Acres: 16.6  
National Priorities List: NO  
Cleanup Oversight Agencies: SMBRP  
Lead Agency Description: DTSC - Site Cleanup Program  
Project Manager: Tom Price  
Supervisor: Karen Toth  
Division Branch: Cleanup Berkeley  
Site Code: 200073  
Site Mgmt. Req.: NONE SPECIFIED  
Assembly: 20  
Senate: 10  
Special Program Status: Not reported  
Status: Certified  
Status Date: 12/30/1993  
Restricted Use: NO  
Funding: Responsible Party  
Latitude: 37.58439  
Longitude: -122.0096

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PACIFIC STATES STEEL - PHASE III (Continued)**

**S100833250**

APN: 87-11-7-2  
Past Use: MANUFACTURING - METAL  
Potential COC : Lead  
Confirmed COC: Lead  
Potential Description: SOIL  
Alias Name: Not reported  
Alias Type: Not reported

Completed Info:

Completed Area Name: Not reported  
Completed Sub Area Name: Not reported  
Completed Document Type: Not reported  
Completed Date: Not reported  
Comments: Not reported

Future Area Name: Not reported  
Future Sub Area Name: Not reported  
Future Document Type: Not reported  
Future Due Date: Not reported  
Schedule Area Name: Not reported  
Schedule Sub Area Name: Not reported  
Schedule Document Type: Not reported  
Schedule Due Date: Not reported  
Schedule Revised Date: Not reported

ENVIROSTOR:

Facility ID: 1330042  
Status: Certified  
Status Date: 12/30/1993  
Site Code: 200073  
Site Type: State Response  
Site Type Detailed: State Response or NPL  
Acres: 16.6  
NPL: NO  
Regulatory Agencies: SMBRP  
Lead Agency: SMBRP  
Program Manager: Tom Price  
Supervisor: Karen Toth  
Division Branch: Cleanup Berkeley  
Assembly: 20  
Senate: 10  
Special Program: Not reported  
Restricted Use: NO  
Site Mgmt Req: NONE SPECIFIED  
Funding: Responsible Party  
Latitude: 37.58439  
Longitude: -122.0096  
APN: 87-11-7-2  
Past Use: MANUFACTURING - METAL  
Potential COC: Lead  
Confirmed COC: Lead  
Potential Description: SOIL  
Alias Name: Not reported  
Alias Type: Not reported

Completed Info:

Completed Area Name: Not reported  
Completed Sub Area Name: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PACIFIC STATES STEEL - PHASE III (Continued)**

**S100833250**

Completed Document Type: Not reported  
Completed Date: Not reported  
Comments: Not reported

Future Area Name: Not reported  
Future Sub Area Name: Not reported  
Future Document Type: Not reported  
Future Due Date: Not reported  
Schedule Area Name: Not reported  
Schedule Sub Area Name: Not reported  
Schedule Document Type: Not reported  
Schedule Due Date: Not reported  
Schedule Revised Date: Not reported

Facility ID: 1330031  
Status: Certified / Operation & Maintenance  
Status Date: 09/22/2006  
Site Code: 202135  
Site Type: State Response  
Site Type Detailed: State Response or NPL  
Acres: 62.6  
NPL: NO  
Regulatory Agencies: SMBRP, ALAMEDA COUNTY WATER DISTRICT, CITY OF UNION CITY  
Lead Agency: SMBRP  
Program Manager: Tom Price  
Supervisor: Janet Naito  
Division Branch: Cleanup Berkeley  
Assembly: 20  
Senate: 10  
Special Program: Not reported  
Restricted Use: YES  
Site Mgmt Req: REM, DAY, ELD, HOS, LUC, EX, NOWN, NDAM, NUSE, NDEV, NSUB, EXT, HS, SCH, FOOD, COV, REM, DAY, ELD, HOS, LUC, NOWN, NDAM, NUSE, NDEV, NSUB, EXT, HS, SCH, FOOD, COV, RES

Funding: Responsible Party  
Latitude: 37.58439  
Longitude: -122.0096  
APN: 87-11-6, 87-11-7-2, 87-17-1, 87-17-2  
Past Use: MANUFACTURING - METAL  
Potential COC: Arsenic Asbestos Containing Materials (ACM Lead Polychlorinated biphenyls (PCBs TPH-diesel TPH-MOTOR OIL Cadmium and compounds Polynuclear aromatic hydrocarbons (PAHs

Confirmed COC: Asbestos Containing Materials (ACM Polynuclear aromatic hydrocarbons (PAHs Polychlorinated biphenyls (PCBs TPH-diesel Cadmium and compounds Arsenic Lead TPH-MOTOR OIL

Potential Description: AQUI, SOIL  
Alias Name: Not reported  
Alias Type: Not reported

Completed Info:  
Completed Area Name: Not reported  
Completed Sub Area Name: Not reported  
Completed Document Type: Not reported  
Completed Date: Not reported  
Comments: Not reported

Future Area Name: Not reported  
Future Sub Area Name: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PACIFIC STATES STEEL - PHASE III (Continued)**

**S100833250**

Future Document Type: Not reported  
Future Due Date: Not reported  
Schedule Area Name: Not reported  
Schedule Sub Area Name: Not reported  
Schedule Document Type: Not reported  
Schedule Due Date: Not reported  
Schedule Revised Date: Not reported

**Calsite:**

Region: BERKELEY  
Facility ID: 01330031  
Facility Type: RP  
Type: RESPONSIBLE PARTY  
Branch: NC  
Branch Name: NORTH COAST  
File Name: Not reported  
State Senate District: 12301993  
Status: ANNUAL WORKPLAN (AWP) - ACTIVE SITE  
Status Name: ANNUAL WORKPLAN - ACTIVE SITE  
Lead Agency: DEPT OF TOXIC SUBSTANCES CONTROL  
NPL: Not Listed  
SIC Code: 33  
SIC Name: MANU - PRIMARY METAL INDUSTRIES  
Access: Not reported  
Cortese: Not reported  
Hazardous Ranking Score: Not reported  
Date Site Hazard Ranked: Not reported  
Groundwater Contamination: Not reported  
Staff Member Responsible for Site: HATIQEE  
Supervisor Responsible for Site: Not reported  
Region Water Control Board: SF  
Region Water Control Board Name: SAN FRANCISCO BAY  
Lat/Long Direction: Not reported  
Lat/Long (dms): 0 0 0 / 0 0 0  
Lat/long Method: Not reported  
Lat/Long Description: Not reported  
State Assembly District Code: 20  
State Senate District Code: 10  
Facility ID: 01330031  
Activity: DISC  
Activity Name: DISCOVERY  
AWP Code: Not reported  
Proposed Budget: 0  
AWP Completion Date: Not reported  
Revised Due Date: Not reported  
Comments Date: 03111980  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: AWP  
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE  
Liquids Removed (Gals): 0  
Liquids Treated (Gals): 0  
Action Included Capping: Not reported  
Well Decommissioned: Not reported  
Action Included Fencing: Not reported  
Removal Action Certification: Not reported



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PACIFIC STATES STEEL - PHASE III (Continued)**

**S100833250**

Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	01330031
Activity:	ORDER
Activity Name:	I/SE, IORSE, FFA, FFSRA, VCA, EA
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	11101988
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	01330031
Activity:	PPP
Activity Name:	PUBLIC PARTICIPATION PLAN
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	07301989
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	01330031
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	PCBS

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PACIFIC STATES STEEL - PHASE III (Continued)**

**S100833250**

Proposed Budget: 0  
AWP Completion Date: Not reported  
Revised Due Date: Not reported  
Comments Date: 10051989  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: AWP  
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE  
Liquids Removed (Gals): 0  
Liquids Treated (Gals): 0  
Action Included Capping: Not reported  
Well Decommissioned: Not reported  
Action Included Fencing: Not reported  
Removal Action Certification: N  
Activity Comments: REMOVAL OF EQUIPMENT, DRUMS, ASBESTOS MATERIALS, AND WASTES.QUANTITIES UNKNOWN.  
  
For Commercial Reuse: 0  
For Industrial Reuse: 0  
For Residential Reuse: 0  
Unknown Type: 0  
Facility ID: 01330031  
Activity: FDNC  
Activity Name: FINAL DETERMINATION OF NON-COMPLIANCE  
AWP Code: Not reported  
Proposed Budget: 0  
AWP Completion Date: Not reported  
Revised Due Date: Not reported  
Comments Date: 07311990  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: AWP  
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE  
Liquids Removed (Gals): 0  
Liquids Treated (Gals): 0  
Action Included Capping: Not reported  
Well Decommissioned: Not reported  
Action Included Fencing: Not reported  
Removal Action Certification: Not reported  
Activity Comments: Not reported  
For Commercial Reuse: 0  
For Industrial Reuse: 0  
For Residential Reuse: 0  
Unknown Type: 0  
Facility ID: 01330031  
Activity: RA  
Activity Name: REMOVAL ACTION  
AWP Code: DRUMS  
Proposed Budget: 0  
AWP Completion Date: Not reported  
Revised Due Date: Not reported  
Comments Date: 01101991  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: AWP

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PACIFIC STATES STEEL - PHASE III (Continued)**

**S100833250**

Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE  
Liquids Removed (Gals): 0  
Liquids Treated (Gals): 0  
Action Included Capping: Not reported  
Well Decommissioned: Not reported  
Action Included Fencing: Not reported  
Removal Action Certification: N  
Activity Comments: REMOVAL AND TREATMENT OR DISPOSAL OF APPROXIMATELY 825 DRUMS AND OTHERCONTAINERS OF HAZARDOUS WASTE.  
For Commercial Reuse: 0  
For Industrial Reuse: 0  
For Residential Reuse: 0  
Unknown Type: 0  
Facility ID: 01330031  
Activity: ERA  
Activity Name: EXPEDITED RESPONSE ACTION  
AWP Code: F&P  
Proposed Budget: 0  
AWP Completion Date: Not reported  
Revised Due Date: Not reported  
Comments Date: 06281991  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: AWP  
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE  
Liquids Removed (Gals): 0  
Liquids Treated (Gals): 0  
Action Included Capping: Not reported  
Well Decommissioned: Not reported  
Action Included Fencing: X  
Removal Action Certification: N  
Activity Comments: INSTALLATION OF A FENCE AROUND PHASE II AND PHASE III PROPERTIES.  
For Commercial Reuse: 0  
For Industrial Reuse: 0  
For Residential Reuse: 0  
Unknown Type: 0  
Facility ID: 01330031  
Activity: RA  
Activity Name: REMOVAL ACTION  
AWP Code: WELLS  
Proposed Budget: 0  
AWP Completion Date: Not reported  
Revised Due Date: Not reported  
Comments Date: 10011991  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: AWP  
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE  
Liquids Removed (Gals): 0  
Liquids Treated (Gals): 0  
Action Included Capping: Not reported  
Well Decommissioned: X  
Action Included Fencing: Not reported  
Removal Action Certification: N  
Activity Comments: SEVEN WELLS ABANDONED.

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PACIFIC STATES STEEL - PHASE III (Continued)**

**S100833250**

For Commercial Reuse: 0  
For Industrial Reuse: 0  
For Residential Reuse: 0  
Unknown Type: 0  
Facility ID: 01330031  
Activity: RA  
Activity Name: REMOVAL ACTION  
AWP Code: FENCE  
Proposed Budget: 0  
AWP Completion Date: Not reported  
Revised Due Date: Not reported  
Comments Date: 12311991  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: AWP  
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE  
Liquids Removed (Gals): 0  
Liquids Treated (Gals): 0  
Action Included Capping: Not reported  
Well Decommissioned: Not reported  
Action Included Fencing: X  
Removal Action Certification: N  
Activity Comments: CONSTRUCTION OF A FENCE AROUND THE COOLING POND.  
For Commercial Reuse: 0  
For Industrial Reuse: 0  
For Residential Reuse: 0  
Unknown Type: 0  
Facility ID: 01330031  
Activity: RA  
Activity Name: REMOVAL ACTION  
AWP Code: ROOF  
Proposed Budget: 0  
AWP Completion Date: Not reported  
Revised Due Date: Not reported  
Comments Date: 12311991  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: AWP  
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE  
Liquids Removed (Gals): 0  
Liquids Treated (Gals): 0  
Action Included Capping: Not reported  
Well Decommissioned: Not reported  
Action Included Fencing: Not reported  
Removal Action Certification: N  
Activity Comments: REMOVAL OF LOOSE METAL ROOFING FROM ABANDONED STRUCTURES.APPROXIMATELY  
1,000 SQ FT OF TIN REMOVED.  
For Commercial Reuse: 0  
For Industrial Reuse: 0  
For Residential Reuse: 0  
Unknown Type: 0  
Facility ID: 01330031  
Activity: RA  
Activity Name: REMOVAL ACTION  
AWP Code: F&P

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PACIFIC STATES STEEL - PHASE III (Continued)**

**S100833250**

Proposed Budget: 0  
AWP Completion Date: Not reported  
Revised Due Date: Not reported  
Comments Date: 12311991  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: AWP  
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE  
Liquids Removed (Gals): 0  
Liquids Treated (Gals): 0  
Action Included Capping: Not reported  
Well Decommissioned: Not reported  
Action Included Fencing: X  
Removal Action Certification: N  
Activity Comments: CONSTRUCTION OF A FENCE AND POSTING OF SIGNS.  
For Commercial Reuse: 0  
For Industrial Reuse: 0  
For Residential Reuse: 0  
Unknown Type: 0  
Facility ID: 01330031  
Activity: ORDER  
Activity Name: I/SE, IORSE, FFA, FFSRA, VCA, EA  
AWP Code: ISED  
Proposed Budget: 0  
AWP Completion Date: Not reported  
Revised Due Date: Not reported  
Comments Date: 10181992  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: AWP  
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE  
Liquids Removed (Gals): 0  
Liquids Treated (Gals): 0  
Action Included Capping: Not reported  
Well Decommissioned: Not reported  
Action Included Fencing: Not reported  
Removal Action Certification: Not reported  
Activity Comments: Not reported  
For Commercial Reuse: 0  
For Industrial Reuse: 0  
For Residential Reuse: 0  
Unknown Type: 0  
Facility ID: 01330031  
Activity: RA  
Activity Name: REMOVAL ACTION  
AWP Code: AGST  
Proposed Budget: 0  
AWP Completion Date: Not reported  
Revised Due Date: Not reported  
Comments Date: 07161993  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: AWP  
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PACIFIC STATES STEEL - PHASE III (Continued)**

**S100833250**

Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	500 GALLON ABOVE GROUND STORAGE REMOVED.
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	01330031
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	ASBES
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	08241993
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	2290
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	REMOVING A TOTAL OF 2,290 TONS OF BRICKS CONTAMINATED WITH ASBESTOS.
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	01330031
Activity:	RIFS
Activity Name:	REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	08311994
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0

Map ID  
Direction  
Distance  
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MAP FINDINGS

Site

Database(s)

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EPA ID Number

**PACIFIC STATES STEEL - PHASE III (Continued)**

**S100833250**

For Residential Reuse: 0  
Unknown Type: 0  
Facility ID: 01330031  
Activity: CEQA  
Activity Name: CEQA INCLUDING NEGATIVE DECS  
AWP Code: EIR  
Proposed Budget: 0  
AWP Completion Date: Not reported  
Revised Due Date: Not reported  
Comments Date: 11141994  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: AWP  
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE  
Liquids Removed (Gals): 0  
Liquids Treated (Gals): 0  
Action Included Capping: Not reported  
Well Decommissioned: Not reported  
Action Included Fencing: Not reported  
Removal Action Certification: Not reported  
Activity Comments: Not reported  
For Commercial Reuse: 0  
For Industrial Reuse: 0  
For Residential Reuse: 0  
Unknown Type: 0  
Facility ID: 01330031  
Activity: RAP  
Activity Name: REMEDIAL ACTION PLAN / RECORD OF DECISION  
AWP Code: Not reported  
Proposed Budget: 0  
AWP Completion Date: Not reported  
Revised Due Date: Not reported  
Comments Date: 11141994  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: AWP  
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE  
Liquids Removed (Gals): 0  
Liquids Treated (Gals): 0  
Action Included Capping: Not reported  
Well Decommissioned: Not reported  
Action Included Fencing: Not reported  
Removal Action Certification: Not reported  
Activity Comments: Not reported  
For Commercial Reuse: 0  
For Industrial Reuse: 0  
For Residential Reuse: 0  
Unknown Type: 0  
Facility ID: 01330031  
Activity: RA  
Activity Name: REMOVAL ACTION  
AWP Code: DELUC  
Proposed Budget: 0  
AWP Completion Date: Not reported  
Revised Due Date: Not reported

Map ID  
Direction  
Distance  
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MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PACIFIC STATES STEEL - PHASE III (Continued)**

**S100833250**

Comments Date: 02071995  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: AWP  
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE  
Liquids Removed (Gals): 10562  
Liquids Treated (Gals): 0  
Action Included Capping: Not reported  
Well Decommissioned: Not reported  
Action Included Fencing: Not reported  
Removal Action Certification: N  
Activity Comments: 10562 CU YDS OF SLAG, SOIL AND DEBRIS FROM ANOTHER PARCELADJOINING SITE. MATERIAL WAS MOVED TO PHASE III AREA AND WILL BEMANAGED IN ACCORDANCE WITH REQUIREMENTS IDENTIFIED IN FINAL RAP.

For Commercial Reuse: 0  
For Industrial Reuse: 0  
For Residential Reuse: 0  
Unknown Type: 0  
Facility ID: 01330031  
Activity: RA  
Activity Name: REMOVAL ACTION  
AWP Code: P&GE  
Proposed Budget: 0  
AWP Completion Date: Not reported  
Revised Due Date: Not reported  
Comments Date: 02071995  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: AWP  
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE  
Liquids Removed (Gals): 33263  
Liquids Treated (Gals): 0  
Action Included Capping: Not reported  
Well Decommissioned: Not reported  
Action Included Fencing: Not reported  
Removal Action Certification: N  
Activity Comments: REMOVED 33,263 CU YDS OF SLAG, SOIL, & DEBRIS FROM STRIP OF LANDADJOINING SITE. MATERIAL MOVED TO PHASE III AREA AND WILL BEMANAGED IN ACCORDANCE WITH REQUIREMENTS IDENTIFIED IN FINAL RAP.

For Commercial Reuse: 0  
For Industrial Reuse: 0  
For Residential Reuse: 0  
Unknown Type: 0  
Facility ID: 01330031  
Activity: RA  
Activity Name: REMOVAL ACTION  
AWP Code: SLUDG  
Proposed Budget: 0  
AWP Completion Date: Not reported  
Revised Due Date: Not reported  
Comments Date: 04121995  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: AWP



Map ID  
Direction  
Distance  
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MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PACIFIC STATES STEEL - PHASE III (Continued)**

**S100833250**

Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE  
Liquids Removed (Gals): 0  
Liquids Treated (Gals): 0  
Action Included Capping: Not reported  
Well Decommissioned: Not reported  
Action Included Fencing: Not reported  
Removal Action Certification: N  
Activity Comments: ISOLATION AND CONTAINMENT OF TANK BOTTOM SLUDGE DISCOVERED DURING  
REMOVAL OF NON-HAZARDOUS SCRAP METAL.  
For Commercial Reuse: 0  
For Industrial Reuse: 0  
For Residential Reuse: 0  
Unknown Type: 0  
Facility ID: 01330031  
Activity: RA  
Activity Name: REMOVAL ACTION  
AWP Code: SCRAP  
Proposed Budget: 0  
AWP Completion Date: Not reported  
Revised Due Date: Not reported  
Comments Date: 04111995  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: AWP  
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE  
Liquids Removed (Gals): 0  
Liquids Treated (Gals): 0  
Action Included Capping: Not reported  
Well Decommissioned: Not reported  
Action Included Fencing: Not reported  
Removal Action Certification: N  
Activity Comments: REMOVAL OF NON-HAZARDOUS SCRAP METAL AND DEMOLITION OF ABANDONED  
BUILDINGS  
For Commercial Reuse: 0  
For Industrial Reuse: 0  
For Residential Reuse: 0  
Unknown Type: 0  
Facility ID: 01330031  
Activity: RA  
Activity Name: REMOVAL ACTION  
AWP Code: OIL  
Proposed Budget: 0  
AWP Completion Date: Not reported  
Revised Due Date: Not reported  
Comments Date: 03041996  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: AWP  
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE  
Liquids Removed (Gals): 0  
Liquids Treated (Gals): 0  
Action Included Capping: Not reported  
Well Decommissioned: Not reported  
Action Included Fencing: Not reported  
Removal Action Certification: N

Map ID  
Direction  
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MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PACIFIC STATES STEEL - PHASE III (Continued)**

**S100833250**

Activity Comments: TOTAL OF 77000 GALLONS OF WATER COATED WITH OIL SKIM DISCOVERED.22000 GALLONS BENEATH BUILDING / 55000 GALLONS BENEATH TOWER.11400 REMOVED FOR RECYCLING, 65600 REMAINING TECHNOLOGY TREATED.

For Commercial Reuse: 0  
For Industrial Reuse: 0  
For Residential Reuse: 0  
Unknown Type: 0  
Facility ID: 01330031  
Activity: RA  
Activity Name: REMOVAL ACTION  
AWP Code: BRICK  
Proposed Budget: 0  
AWP Completion Date: Not reported  
Revised Due Date: Not reported  
Comments Date: 03041996  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: AWP  
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE  
Liquids Removed (Gals): 1500  
Liquids Treated (Gals): 0  
Action Included Capping: Not reported  
Well Decommissioned: Not reported  
Action Included Fencing: Not reported  
Removal Action Certification: N  
Activity Comments: APPROX 1500 CU YRDS OF DUST/ASH WERE REMOVED BY ROTAR PROCESSING.FURNACE AND FLUME AREA CLEANUP BRICK RECYCLING.

For Commercial Reuse: 0  
For Industrial Reuse: 0  
For Residential Reuse: 0  
Unknown Type: 0  
Facility ID: 01330031  
Activity: RA  
Activity Name: REMOVAL ACTION  
AWP Code: PCB  
Proposed Budget: 0  
AWP Completion Date: Not reported  
Revised Due Date: Not reported  
Comments Date: 03041996  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: AWP  
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE  
Liquids Removed (Gals): 0  
Liquids Treated (Gals): 0  
Action Included Capping: Not reported  
Well Decommissioned: Not reported  
Action Included Fencing: Not reported  
Removal Action Certification: N  
Activity Comments: REMOVAL OF 10 TRANSFORMERS FROM PRECIPITATOR AND COOLING TOWER,WHICH WERE DRAINED OF OIL CONTAINING PCBS. TRANSFORMERS PLUS 15DRUMS OF PCB CONTAMINATED OIL AND DEBRIS TRANSPORTED & DISPOSED.

For Commercial Reuse: 0  
For Industrial Reuse: 0  
For Residential Reuse: 0

Map ID  
Direction  
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MAP FINDINGS

Site

Database(s)

EDR ID Number  
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**PACIFIC STATES STEEL - PHASE III (Continued)**

**S100833250**

Unknown Type: 0  
Facility ID: 01330031  
Activity: RA  
Activity Name: REMOVAL ACTION  
AWP Code: TANKS  
Proposed Budget: 0  
AWP Completion Date: Not reported  
Revised Due Date: Not reported  
Comments Date: 03041996  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: AWP  
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE  
Liquids Removed (Gals): 0  
Liquids Treated (Gals): 0  
Action Included Capping: Not reported  
Well Decommissioned: Not reported  
Action Included Fencing: Not reported  
Removal Action Certification: N  
Activity Comments: DEMOLITION OF ACID TANKS AND DECONTAMINATION AND REMOVAL OF FOIL-IMPACTED SCRAP METAL FROM COVERED BARREL AREA.  
  
For Commercial Reuse: 0  
For Industrial Reuse: 0  
For Residential Reuse: 0  
Unknown Type: 0  
Facility ID: 01330031  
Activity: RA  
Activity Name: REMOVAL ACTION  
AWP Code: TOWER  
Proposed Budget: 0  
AWP Completion Date: Not reported  
Revised Due Date: Not reported  
Comments Date: 03041996  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: AWP  
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE  
Liquids Removed (Gals): 0  
Liquids Treated (Gals): 0  
Action Included Capping: Not reported  
Well Decommissioned: Not reported  
Action Included Fencing: Not reported  
Removal Action Certification: N  
Activity Comments: DECONTAMINATION, DEMOLITION & REMOVAL OF ABOVE-GROUND STRUCTURES INCLUDING PRECIPITATOR TOWER, COOLING TOWER, AND CAR-CRUSHER BUILDING WITH DISPOSAL OF ASBESTOS INSULATION AND PIPING.  
  
For Commercial Reuse: 0  
For Industrial Reuse: 0  
For Residential Reuse: 0  
Unknown Type: 0  
Facility ID: 01330031  
Activity: CERT  
Activity Name: CERTIFICATION  
AWP Code: Not reported  
Proposed Budget: 0

Map ID  
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MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PACIFIC STATES STEEL - PHASE III (Continued)**

**S100833250**

AWP Completion Date: 07312005  
Revised Due Date: 10312005  
Comments Date: Not reported  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: AWP  
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE  
Liquids Removed (Gals): 0  
Liquids Treated (Gals): 0  
Action Included Capping: Not reported  
Well Decommissioned: Not reported  
Action Included Fencing: Not reported  
Removal Action Certification: Not reported  
Activity Comments: Not reported  
For Commercial Reuse: 0  
For Industrial Reuse: 0  
For Residential Reuse: 0  
Unknown Type: 0  
Facility ID: 01330031  
Activity: RA  
Activity Name: REMOVAL ACTION  
AWP Code: Not reported  
Proposed Budget: 0  
AWP Completion Date: Not reported  
Revised Due Date: Not reported  
Comments Date: 04051996  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: AWP  
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE  
Liquids Removed (Gals): 0  
Liquids Treated (Gals): 0  
Action Included Capping: Not reported  
Well Decommissioned: Not reported  
Action Included Fencing: Not reported  
Removal Action Certification: N  
Activity Comments: REMOVAL OF NON-HAZARDOUS WASTE UNDER EASTIN GRANT FUNDING,INTEGRATED WITH REMOVAL OF HAZARDOUS WASTES BY DTSC.  
For Commercial Reuse: 0  
For Industrial Reuse: 0  
For Residential Reuse: 0  
Unknown Type: 0  
Facility ID: 01330031  
Activity: RMDL  
Activity Name: REMEDIAL ACTION (RAP REQUIRED)  
AWP Code: SOUTH  
Proposed Budget: 0  
AWP Completion Date: Not reported  
Revised Due Date: Not reported  
Comments Date: 06182004  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: AWP  
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE

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Database(s)

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EPA ID Number

**PACIFIC STATES STEEL - PHASE III (Continued)**

**S100833250**

Liquids Removed (Gals): 0  
Liquids Treated (Gals): 161000  
Action Included Capping: Not reported  
Well Decommissioned: Not reported  
Action Included Fencing: Not reported  
Removal Action Certification: N  
Activity Comments: 135,000 CY OF SOIL EXCAVATED AND DISPOSED IN WASTE CONTAINMENT AREA;26,000TPH SOIL TREATED ON SITE, 30,000 CY CONCRETE REUSED; AND2.8 MILLION GALLONS OF WATER REMOVED AND TREATED.

For Commercial Reuse: 0  
For Industrial Reuse: 0  
For Residential Reuse: 23  
Unknown Type: 0  
Facility ID: 01330031  
Activity: DES  
Activity Name: DESIGN  
AWP Code: SITE  
Proposed Budget: 0  
AWP Completion Date: Not reported  
Revised Due Date: Not reported  
Comments Date: 06202002  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: AWP  
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE

Liquids Removed (Gals): 0  
Liquids Treated (Gals): 0  
Action Included Capping: Not reported  
Well Decommissioned: Not reported  
Action Included Fencing: Not reported  
Removal Action Certification: Not reported  
Activity Comments: Not reported  
For Commercial Reuse: 0  
For Industrial Reuse: 0  
For Residential Reuse: 0  
Unknown Type: 0  
Facility ID: 01330031  
Activity: RMDL  
Activity Name: REMEDIAL ACTION (RAP REQUIRED)  
AWP Code: NORTH  
Proposed Budget: 0  
AWP Completion Date: 06302005  
Revised Due Date: Not reported  
Comments Date: 05272005  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: AWP  
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE

Liquids Removed (Gals): 30000  
Liquids Treated (Gals): 12000  
Action Included Capping: Not reported  
Well Decommissioned: Not reported  
Action Included Fencing: Not reported  
Removal Action Certification: Not reported  
Activity Comments: SLUDGE (12,000 YARD)FROM COOLING POND WAS TREATED AND PLACED IN WASTE

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MAP FINDINGS

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**PACIFIC STATES STEEL - PHASE III (Continued)**

**S100833250**

CONTAINMENT AREA. TPH SOIL WAS STABILIZED AND REMOVED OFF-SITE.

For Commercial Reuse: 0  
For Industrial Reuse: 0  
For Residential Reuse: 0  
Unknown Type: 0  
Facility ID: 01330031  
Activity: RAP  
Activity Name: REMEDIAL ACTION PLAN / RECORD OF DECISION  
AWP Code: ESD  
Proposed Budget: 0  
AWP Completion Date: Not reported  
Revised Due Date: Not reported  
Comments Date: 04182002  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: AWP  
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE  
Liquids Removed (Gals): 0  
Liquids Treated (Gals): 0  
Action Included Capping: Not reported  
Well Decommissioned: Not reported  
Action Included Fencing: Not reported  
Removal Action Certification: Not reported  
Activity Comments: Not reported  
For Commercial Reuse: 0  
For Industrial Reuse: 0  
For Residential Reuse: 0  
Unknown Type: 0  
Facility ID: 01330031  
Activity: RMDL  
Activity Name: REMEDIAL ACTION (RAP REQUIRED)  
AWP Code: HWY84  
Proposed Budget: 0  
AWP Completion Date: Not reported  
Revised Due Date: Not reported  
Comments Date: 07222004  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: AWP  
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE  
Liquids Removed (Gals): 60000  
Liquids Treated (Gals): 0  
Action Included Capping: Not reported  
Well Decommissioned: Not reported  
Action Included Fencing: Not reported  
Removal Action Certification: N  
Activity Comments: Not reported  
For Commercial Reuse: 0  
For Industrial Reuse: 0  
For Residential Reuse: 0  
Unknown Type: 5  
Alternate Address: 35124 ALVARADO-NILES ROAD  
Alternate City,St,Zip: UNION CITY, CA 94587  
Background Info: The Phase III property was one of three parcels of land owned by Pacific States Steel Corporation and was the location where the

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MAP FINDINGS

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**PACIFIC STATES STEEL - PHASE III (Continued)**

**S100833250**

company operated a steel mill from 1938 to 1978. Steel was produced from imported scrap iron, steel, and wrecked automobiles in open-hearth refractory lined furnaces. Slag was generated from the steel-making process and was deposited on the Phase III and adjacent Phase II properties. The slag that remains on the Phase III property contains arsenic, cadmium, chromium, copper, lead, nickel, and zinc. Other metal-containing materials that were placed on the Phase III property include auto shredder fluff and precipitator dust. Bunker oil and diesel were used on the Site and there are some areas contaminated with petroleum hydrocarbons. Groundwater contamination by cadmium and petroleum hydrocarbons has been found under portions of the Site. A variety of businesses leased portions of the Site between 1977 and 1987. These businesses included freight lines, steel and ironworks, pallet manufacturers, construction companies, and a blacksmith company. Special Masters appointed by the U.S. District Court have been handling the obligations for the defunct Pacific States Steel Corporation since 1984, including its obligations for environmental cleanup. The Court approved an amended Consent Decree between DTSC and Pacific States Steel Corporation for the investigation and cleanup of the Site in November 1988. The Court administrative objectives include remediation of the Site and redevelopment so funds can be generated to pay for the pension benefits of the former steelworkers. Cleanup of the southern portion of the Phase III property has been completed and single-family homes are currently being constructed on the area. Another residential development and a commercial development are planned for the northern portion of the Site once cleanup is completed.

Comments Date: 04051996  
Comments: Completed RA. Using Eastin Grant Funding, non-hazardous wastes  
Comments Date: 04051996  
Comments: were removed from the site. These included 8100 tons of bricks  
Comments Date: 04051996  
Comments: which were recycled as road base, 4550 tons of wood recycled as  
Comments Date: 04051996  
Comments: cogeneration fuel, 3086 tons of concrete recycled as road base,  
Comments Date: 04051996  
Comments: 1388 tons of wood impacted soil for use as fill material,  
Comments Date: 04051996  
Comments: 1,500,000 railroad ties recycled by railroad or used as fuel,  
Comments Date: 04051996  
Comments: and 9000 ties.  
Comments Date: 04111995  
Comments: Completed RA. Non-hazardous scrap metal was removed from the  
Comments Date: 04111995  
Comments: site and abandoned buildings were demolished.  
Comments Date: 06182004  
Comments: Completed RA. Cleanup, backfilling, and grading were completed  
Comments Date: 06182004  
Comments: on the southern parcel of the Site.  
Comments Date: 07161993  
Comments: Completed RA. A 500 gallon above ground fuel tank was removed  
Comments Date: 07161993  
Comments: and disposed at an approved disposal facility.  
Comments Date: 07222004

Map ID  
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MAP FINDINGS

Site

Database(s)

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**PACIFIC STATES STEEL - PHASE III (Continued)**

**S100833250**

Comments: Completed RA. Cleanup, backfilling, and grading were completed  
Comments Date: 07222004  
Comments: on the proposed Highway 84 right-of-way.  
Comments Date: 08241993  
Comments: Completed RA. 2,290 tons of bricks contaminated with asbestos  
Comments Date: 08241993  
Comments: were removed from the Site and disposed at an approved disposal  
Comments Date: 08241993  
Comments: facility.  
Comments Date: 11141994  
Comments: Approved Final RAP. The primary components of the FRAP  
Comments Date: 11141994  
Comments: included: 1) consolidation and capping of the estimated 500,000  
Comments Date: 11141994  
Comments: cubic yards of slag remaining on the site; 2) bioremediation of  
Comments Date: 11141994  
Comments: an estimated 23,000 cubic yards of petroleum  
Comments Date: 11141994  
Comments: hydrocarbon-contaminated soil and sludge from a former cooling  
Comments Date: 11141994  
Comments: water pond; 3) excavation and offsite disposal of approximately  
Comments Date: 11141994  
Comments: 250 cubic yards of PCB-contaminated soil in the area where EPA  
Comments Date: 11141994  
Comments: previously conducted a removal action; and 4) steam-cleaning of  
Comments Date: 11141994  
Comments: all concrete sumps and equipment vaults and demolition of  
Comments Date: 11141994  
Comments: concrete structures.  
Comments Date: 12102004  
Comments: Completed RA. Remediation and grading of the 11th Street  
Comments Date: 12102004  
Comments: right-of-way and the future townhome residential area were  
Comments Date: 12102004  
Comments: completed.  
Comments Date: 02071995  
Comments: Completed RA. 33,263 cubic yards of slag, soil, and debris from  
Comments Date: 02071995  
Comments: a strip of land adjoining the site owned by PG&E and the Alameda  
Comments Date: 02071995  
Comments: County Flood Control District were removed from the site and  
Comments Date: 02071995  
Comments: disposed at an approved disposal facility. Completed RA.  
Comments Date: 02071995  
Comments: 10,562 cubic yards of similar material from a strip of land  
Comments Date: 02071995  
Comments: owned by another property owner were removed from the site and  
Comments Date: 02071995  
Comments: disposed at an approved disposal facility.  
Comments Date: 03041996  
Comments: Completed RA. Five separate Removal Actions were completed. 1)  
Comments Date: 03041996  
Comments: The removal of PCBs including the draining of oil from ten  
Comments Date: 03041996  
Comments: transformers from the precipitator and cooling tower. The  
Comments Date: 03041996  
Comments: transformers plus fifteen drums of PCBs were disposed offsite.



Map ID  
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MAP FINDINGS

Site

Database(s)

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**PACIFIC STATES STEEL - PHASE III (Continued)**

**S100833250**

Comments Date: 03041996  
Comments: 2) The decontamination and demolition of the precipitator and  
Comments Date: 03041996  
Comments: cooling towers and the car-crushing building. Asbestos pipe and  
Comments Date: 03041996  
Comments: insulating material were also removed. 3) Four above ground  
Comments Date: 03041996  
Comments: tanks, contaminated bunker C and diesel oil were shipped  
Comments Date: 03041996  
Comments: off-site. Sumps containing 55,000 gallons of contaminated water  
Comments Date: 03041996  
Comments: was sent off-site for recycling. 4) The removal of 10,000 cubic  
Comments Date: 03041996  
Comments: yards of bricks which were recycled into road base. Another 300  
Comments Date: 03041996  
Comments: cubic yards of bricks were shipped off-site as hazardous waste  
Comments Date: 03041996  
Comments: due to lead levels. 5) The removal of two above ground tanks  
Comments Date: 03041996  
Comments: used to store sulfuric acid, other tanks, and drums found  
Comments Date: 03041996  
Comments: on-site containing hazardous substances.  
ID Name: CALSTARS CODE  
ID Value: 200073  
ID Name: EPA IDENTIFICATION NUMBER  
ID Value: CAD980363030  
ID Name: BEP DATABASE PCODE  
ID Value: P21046  
Alternate Name: PACIFIC STATES STEEL  
Alternate Name: PACIFIC STATES STEEL - PHASE III  
Alternate Name: Not reported  
Special Programs Code: Not reported  
Special Programs Name: Not reported

Region: BERKELEY  
Facility ID: 01330042  
Facility Type: RP  
Type: RESPONSIBLE PARTY  
Branch: NC  
Branch Name: NORTH COAST  
File Name: Not reported  
State Senate District: 12301993  
Status: CERTIFIED AS HAVING BEEN REMEDIED SATISFACTORILY UNDER DTSC OVERSIGHT  
Status Name: CERTIFIED  
Lead Agency: DEPT OF TOXIC SUBSTANCES CONTROL  
NPL: Not Listed  
SIC Code: 33  
SIC Name: MANU - PRIMARY METAL INDUSTRIES  
Access: Not reported  
Cortese: Not reported  
Hazardous Ranking Score: Not reported  
Date Site Hazard Ranked: Not reported  
Groundwater Contamination: Unknown  
Staff Member Responsible for Site: MPIROS  
Supervisor Responsible for Site: Not reported  
Region Water Control Board: SF  
Region Water Control Board Name: SAN FRANCISCO BAY

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PACIFIC STATES STEEL - PHASE III (Continued)**

**S100833250**

Lat/Long Direction: Not reported  
Lat/Long (dms): 0 0 0 / 0 0 0  
Lat/long Method: Not reported  
Lat/Long Description: Not reported  
State Assembly District Code: 20  
State Senate District Code: 10  
Facility ID: 01330042  
Activity: DISC  
Activity Name: DISCOVERY  
AWP Code: Not reported  
Proposed Budget: 0  
AWP Completion Date: Not reported  
Revised Due Date: Not reported  
Comments Date: 03111980  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: CERT  
Definition of Status: CERTIFIED  
Liquids Removed (Gals): 0  
Liquids Treated (Gals): 0  
Action Included Capping: Not reported  
Well Decommissioned: Not reported  
Action Included Fencing: Not reported  
Removal Action Certification: Not reported  
Activity Comments: Not reported  
For Commercial Reuse: 0  
For Industrial Reuse: 0  
For Residential Reuse: 0  
Unknown Type: 0  
Facility ID: 01330042  
Activity: ORDER  
Activity Name: I/SE, IORSE, FFA, FFSRA, VCA, EA  
AWP Code: Not reported  
Proposed Budget: 0  
AWP Completion Date: Not reported  
Revised Due Date: Not reported  
Comments Date: 11301988  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: CERT  
Definition of Status: CERTIFIED  
Liquids Removed (Gals): 0  
Liquids Treated (Gals): 0  
Action Included Capping: Not reported  
Well Decommissioned: Not reported  
Action Included Fencing: Not reported  
Removal Action Certification: Not reported  
Activity Comments: Not reported  
For Commercial Reuse: 0  
For Industrial Reuse: 0  
For Residential Reuse: 0  
Unknown Type: 0  
Facility ID: 01330042  
Activity: PPP  
Activity Name: PUBLIC PARTICIPATION PLAN

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PACIFIC STATES STEEL - PHASE III (Continued)**

**S100833250**

AWP Code: Not reported  
Proposed Budget: 0  
AWP Completion Date: Not reported  
Revised Due Date: Not reported  
Comments Date: 07301989  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: CERT  
Definition of Status: CERTIFIED  
Liquids Removed (Gals): 0  
Liquids Treated (Gals): 0  
Action Included Capping: Not reported  
Well Decommissioned: Not reported  
Action Included Fencing: Not reported  
Removal Action Certification: Not reported  
Activity Comments: Not reported  
For Commercial Reuse: 0  
For Industrial Reuse: 0  
For Residential Reuse: 0  
Unknown Type: 0  
Facility ID: 01330042  
Activity: FDNC  
Activity Name: FINAL DETERMINATION OF NON-COMPLIANCE  
AWP Code: Not reported  
Proposed Budget: 0  
AWP Completion Date: Not reported  
Revised Due Date: Not reported  
Comments Date: 07311990  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: CERT  
Definition of Status: CERTIFIED  
Liquids Removed (Gals): 0  
Liquids Treated (Gals): 0  
Action Included Capping: Not reported  
Well Decommissioned: Not reported  
Action Included Fencing: Not reported  
Removal Action Certification: Not reported  
Activity Comments: Not reported  
For Commercial Reuse: 0  
For Industrial Reuse: 0  
For Residential Reuse: 0  
Unknown Type: 0  
Facility ID: 01330042  
Activity: ORDER  
Activity Name: I/SE, IORSE, FFA, FFSRA, VCA, EA  
AWP Code: F & P  
Proposed Budget: 0  
AWP Completion Date: Not reported  
Revised Due Date: Not reported  
Comments Date: 06061991  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: CERT

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PACIFIC STATES STEEL - PHASE III (Continued)**

**S100833250**

Definition of Status:	CERTIFIED
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	01330042
Activity:	CEQA
Activity Name:	CEQA INCLUDING NEGATIVE DECS
AWP Code:	NEG
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	03091992
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	CERT
Definition of Status:	CERTIFIED
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	01330042
Activity:	FRIFS
Activity Name:	FOCUSED REMEDIAL INVESTIGATION/FEASIBILITY STUDY
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	04091992
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	CERT
Definition of Status:	CERTIFIED
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PACIFIC STATES STEEL - PHASE III (Continued)**

**S100833250**

For Industrial Reuse: 0  
For Residential Reuse: 0  
Unknown Type: 0  
Facility ID: 01330042  
Activity: CERT  
Activity Name: CERTIFICATION  
AWP Code: Not reported  
Proposed Budget: 0  
AWP Completion Date: Not reported  
Revised Due Date: Not reported  
Comments Date: 12301993  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: CERT  
Definition of Status: CERTIFIED  
Liquids Removed (Gals): 0  
Liquids Treated (Gals): 0  
Action Included Capping: Not reported  
Well Decommissioned: Not reported  
Action Included Fencing: Not reported  
Removal Action Certification: Not reported  
Activity Comments: Not reported  
For Commercial Reuse: 0  
For Industrial Reuse: 0  
For Residential Reuse: 16.60000  
Unknown Type: 0  
Facility ID: 01330042  
Activity: RA  
Activity Name: REMOVAL ACTION  
AWP Code: Not reported  
Proposed Budget: 0  
AWP Completion Date: Not reported  
Revised Due Date: Not reported  
Comments Date: 12301993  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: CERT  
Definition of Status: CERTIFIED  
Liquids Removed (Gals): 90000  
Liquids Treated (Gals): 0  
Action Included Capping: Not reported  
Well Decommissioned: Not reported  
Action Included Fencing: Not reported  
Removal Action Certification: N  
Activity Comments: EXCAVATION OF APPROXIMATELY 90,000 CU YDS OF SLAG & SOIL.  
For Commercial Reuse: 0  
For Industrial Reuse: 0  
For Residential Reuse: 0  
Unknown Type: 0  
Alternate Address: 35124 ALVARADO-NILES ROAD  
Alternate City,St,Zip: UNION CITY, CA 94587  
Background Info: The Pacific State Steel Corporation (PSSC) property comprises three parcels of land: Phase I at 7th and Mission Street is about 5.5 acres; Phase II, the east property is about 16.6 acres; Phase III, the former plant site is 70 acres. The former

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PACIFIC STATES STEEL - PHASE III (Continued)**

**S100833250**

PSSC steel mill production facilities located on Phase III operated from 1938 to 1978. Phase II was purchased as a disposal area for slag and industrial waste water generated in the steel making process from 1966 to 1978. Prior to this, Phase II was used for agricultural purposes.

Comments Date: 03111980  
Comments: Site Discovery.  
Comments Date: 04091992  
Comments: Completed Focused RIFS for Phase II. The slag contains elevated  
Comments Date: 04091992  
Comments: levels of metals including zinc, copper, lead, cadmium, chromium  
Comments Date: 04091992  
Comments: and nickel.  
Comments Date: 06061991  
Comments: Issued F&P Order.  
Comments Date: 07301989  
Comments: Completed Public Participation Plan.  
Comments Date: 07311990  
Comments: Issued Final Determination of Non-Compliance.  
Comments Date: 11301988  
Comments: Issued Consent Order. Phases II and III are the two parcels  
Comments Date: 11301988  
Comments: affected by Consent Decree Number C-82-4209 MHP. The Court  
Comments Date: 11301988  
Comments: administration objectives include 1) cleanup of all parcels to  
Comments Date: 11301988  
Comments: appropriate levels and 2) develop all parcels for productive  
Comments Date: 11301988  
Comments: uses so funds can be generated to pay for the pension benefits  
Comments Date: 11301988  
Comments: of the former steel workers of the steel manufacturing plant.  
Comments Date: 12301993  
Comments: Completed RA. Certified Site. An estimated 90,000 cubic yards  
Comments Date: 12301993  
Comments: of soil contaminated with slag and 11,000 cubic yards of soil  
Comments Date: 12301993  
Comments: contaminated with petroleum hydrocarbons were removed and  
Comments Date: 12301993  
Comments: disposed off-site. Phase II was cleaned to background levels of  
Comments Date: 12301993  
Comments: metals (See Pacific States Steel Phase III for more  
Comments Date: 12301993  
Comments: information). Soil background was used as the site cleanup  
Comments Date: 12301993  
Comments: goal. Groundwater monitoring is required as Operation and  
Comments Date: 12301993  
Comments: Maintenance and is still ongoing. The Site has been developed  
Comments Date: 12301993  
Comments: and is currently occupied by residences.  
ID Name: CALSTARS CODE  
ID Value: 200073  
ID Name: BEP DATABASE PCODE  
ID Value: P21046  
ID Name: EPA IDENTIFICATION NUMBER  
ID Value: CAD 980363030  
Alternate Name: PACIFIC STATES STEEL - PHASE II  
Alternate Name: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PACIFIC STATES STEEL - PHASE III (Continued)**

**S100833250**

Special Programs Code: Not reported  
Special Programs Name: Not reported

**DEED:**

Envirostor ID: 1330031  
Area: WASTE CONSOLIDATION AREA  
Sub Area: Not reported  
Site Type: STATE RESPONSE  
Status: CERTIFIED / OPERATION & MAINTENANCE  
Agency: Not reported  
Covenant Uploaded: Not reported  
Deed Date(s): 04/28/2006  
File Name: Envirostor Land Use Restrictions

Envirostor ID: 1330031  
Area: 11TH STREET RIGHT-OF-WAY  
Sub Area: Not reported  
Site Type: STATE RESPONSE  
Status: CERTIFIED / OPERATION & MAINTENANCE  
Agency: Not reported  
Covenant Uploaded: Not reported  
Deed Date(s): 03/24/2006  
File Name: Envirostor Land Use Restrictions

**CA BOND EXP. PLAN:**

Responsible Party: RESPONSIBLE PARTY-LEAD SITE CLEANUP WORKPLAN  
Project Revenue Source Company: Not reported  
Project Revenue Source Addr: Not reported  
Project Revenue Source City,St,Zip: Not reported  
Project Revenue Source Desc: The RP, through the U.S. District Court, is in compliance with an order issued by DHS. Proceeds from the sale of uncontaminated portions of the site will be used to finance RI/FS and cleanup activities. DHS has budgeted \$100,000 for direct costs related to the project. DHS will recover 100 percent of direct costs plus staff costs and overhead related to the project. The RP will pay all costs associated with RI/FS and cleanup activities.  
Site Description: A steel manufacturing facility existed at the site from 1935 to 1978. Slag piles and evaporation ponds remain at the site.  
Hazardous Waste Desc: Heavy metals (cadmium, chromium, nickel, lead, and zinc), oils and total petroleum hydrocarbon have been detected in slag piles and ponds onsite. Transformers and capacitors containing polychlorinated biphenyl (PCBs) and asbestos material are found onsite.  
Threat To Public Health & Env: Contaminants at the site may migrate offsite via wind dispersion, surface runoff and ground water transport, resulting in an adverse impact on human/animal health and the environment.  
Site Activity Status: Pacific States Steel is in receivership under the federal court. The affairs of Pacific States Steel are handled by an appointee of the U.S. District Court. Limited site sampling has been conducted by DHS and Pacific States Steel. Under their reorganization plan, the court has entered into a consent decree with DHS to comply with our remedial action order.

**CORTESE:**

Region: CORTESE  
Envirostor Id: 1330031  
Global ID: Not reported  
Site/Facility Type: STATE RESPONSE  
Cleanup Status: CERTIFIED / OPERATION & MAINTENANCE - LAND USE RESTRICTIONS

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PACIFIC STATES STEEL - PHASE III (Continued)**

**S100833250**

Status Date: 09/22/2006  
Site Code: 200073, 202135  
Latitude: 37.584395  
Longitude: -122.00967  
Owner: Not reported  
Enf Type: Not reported  
Swat R: Not reported  
Flag: envirostor  
Order No: Not reported  
Waste Discharge System No: Not reported  
Effective Date: Not reported  
Region 2: Not reported  
WID Id: Not reported  
Solid Waste Id No: Not reported  
Waste Management Uit Name: Not reported  
File Name: Haz Waste & Substances Sites

**CERS TANKS:**

Site ID: 341159  
CERS ID: 01330031  
Site Name: PACIFIC STATES STEEL  
CERS Description: State Response

**Affiliation:**

Affiliation Type Desc: Lead Project Manager  
Entity Name: Tom Price  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: BERKELEY  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Supervisor  
Entity Name: Karen Toth  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Site ID: 341159  
CERS ID: 01330042  
Site Name: PACIFIC STATES STEEL  
CERS Description: State Response

**Affiliation:**

Affiliation Type Desc: Lead Project Manager  
Entity Name: Tom Price  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: BERKELEY  
Affiliation State: CA  
Affiliation Country: Not reported



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PACIFIC STATES STEEL - PHASE III (Continued)**

**S100833250**

Affiliation Zip: Not reported  
Affiliation Phone: Not reported  
  
Affiliation Type Desc: Supervisor  
Entity Name: Karen Toth  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

V98  
SSE  
1/2-1  
0.821 mi.  
4335 ft.

**KRAFTILE**  
**800 KRAFTILE ROAD**  
**FREMONT, CA 94536**

**CPS-SLIC 1000230954**  
**HIST Cal-Sites N/A**  
**EMI**  
**CERS**

**Site 1 of 2 in cluster V**

**Relative:**  
**Lower**  
  
**Actual:**  
**49 ft.**

**CPS-SLIC:**  
Site Name: KRAFTILE COMPANY  
Region: STATE  
**Facility Status: Completed - Case Closed**  
Status Date: 12/29/1997  
Global Id: SL0600102400  
Lead Agency: SAN FRANCISCO BAY RWQCB (REGION 2)  
Lead Agency Case Number: 0540  
Latitude: 37.584084  
Longitude: -122.006073  
Case Type: Cleanup Program Site  
Case Worker: UUU  
Local Agency: Not reported  
RB Case Number: Not reported  
File Location: Not reported  
Potential Media Affected: Not reported  
Potential Contaminants of Concern: Not reported  
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

**SLIC REG 2:**

Region: 2  
Facility ID: Not reported  
Facility Status: Case Closed  
Date Closed: Not reported  
Local Case #: Not reported  
How Discovered: Not reported  
Leak Cause: Not reported  
Leak Source: Not reported  
Date Confirmed: Not reported  
Date Prelim Site Assmnt Workplan Submitted: Not reported  
Date Preliminary Site Assessment Began: Not reported  
Date Pollution Characterization Began: Not reported  
Date Remediation Plan Submitted: Not reported  
Date Remedial Action Underway: Not reported  
Date Post Remedial Action Monitoring Began: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**KRAFTILE (Continued)**

**1000230954**

Calsite:  
Region: BERKELEY  
Facility ID: 01320029  
Facility Type: RP  
Type: RESPONSIBLE PARTY  
Branch: NC  
Branch Name: NORTH COAST  
File Name: Not reported  
State Senate District: 12181997  
Status: CERTIFIED AS HAVING BEEN REMEDIED SATISFACTORILY UNDER DTSC OVERSIGHT  
Status Name: CERTIFIED  
Lead Agency: DEPT OF TOXIC SUBSTANCES CONTROL  
NPL: Not Listed  
SIC Code: 32  
SIC Name: MANU - STONE, CLAY & GLASS PRODUCTS  
Access: Controlled  
Cortese: Not reported  
Hazardous Ranking Score: Not reported  
Date Site Hazard Ranked: Not reported  
Groundwater Contamination: Not reported  
Staff Member Responsible for Site: TTSE  
Supervisor Responsible for Site: Not reported  
Region Water Control Board: SF  
Region Water Control Board Name: SAN FRANCISCO BAY  
Lat/Long Direction: Not reported  
Lat/Long (dms): 0 0 0 / 0 0 0  
Lat/long Method: Not reported  
Lat/Long Description: Not reported  
State Assembly District Code: 20  
State Senate District Code: 10  
Facility ID: 01320029  
Activity: ORDER  
Activity Name: I/SE, IORSE, FFA, FFSRA, VCA, EA  
AWP Code: I/SE  
Proposed Budget: 0  
AWP Completion Date: Not reported  
Revised Due Date: Not reported  
Comments Date: 09081997  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: CERT  
Definition of Status: CERTIFIED  
Liquids Removed (Gals): 0  
Liquids Treated (Gals): 0  
Action Included Capping: Not reported  
Well Decommissioned: Not reported  
Action Included Fencing: Not reported  
Removal Action Certification: Not reported  
Activity Comments: Not reported  
For Commercial Reuse: 0  
For Industrial Reuse: 0  
For Residential Reuse: 0  
Unknown Type: 0  
Facility ID: 01320029  
Activity: RAW  
Activity Name: REMOVAL ACTION WORKPLAN

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**KRAFTILE (Continued)**

**1000230954**

AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	10171997
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	CERT
Definition of Status:	CERTIFIED
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	01320029
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	12181997
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	CERT
Definition of Status:	CERTIFIED
Liquids Removed (Gals):	1780
Liquids Treated (Gals):	200000
Action Included Capping:	Not reported
Well Decommissioned:	X
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	01320029
Activity:	CERT
Activity Name:	CERTIFICATION
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	12181997
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	CERT

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**KRAFTILE (Continued)**

1000230954

Definition of Status:	CERTIFIED
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	16
Unknown Type:	0
Facility ID:	01320029
Activity:	CEQA
Activity Name:	CEQA INCLUDING NEGATIVE DECS
AWP Code:	NEG'D
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	10171997
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	CERT
Definition of Status:	CERTIFIED
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	01320029
Activity:	PEA
Activity Name:	PRELIMINARY ENDANGERMENT ASSESSMENT
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	09091997
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	CERT
Definition of Status:	CERTIFIED
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**KRAFTILE (Continued)**

**1000230954**

For Industrial Reuse: 0  
For Residential Reuse: 0  
Unknown Type: 0  
Alternate Address: 800 KRAFTILE ROAD  
Alternate City,St,Zip: FREMONT, CA 94536  
Background Info: The Site was reportedly the original site of Kraft Cheese in the early 1900's. From 1924 to 1926, K&L Lumber Company operated at the facility and manufactured wooden cheese boxes for Kraft Cheese. Between 1926 and 1996, Kraftile Company used the property for manufacturing of clay tiles. During Kraftile's operation, the southern portion of the Site was mined for clay deposits. The clay pits were backfilled with soil, construction debris and slag materials. The slag materials were reportedly generated and may have been disposed by Pacific States Steel Company. The site is about 16 acres. High levels of chromium, lead and zinc have been detected in soil and slag samples collected from the Site.  
Comments Date: 09081997  
Comments: Issued I&SE and Remedial Action Order to Kraftile for its  
Comments Date: 09081997  
Comments: investigation and remediation of the Site.  
Comments Date: 10171997  
Comments: Approved RAW and Negative Declaration for the project. Soils  
Comments Date: 10171997  
Comments: above residential cleanup levels will be excavated and either  
Comments Date: 10171997  
Comments: recycled offsite or disposed offsite.  
Comments Date: 12181997  
Comments: Completed RA. In October and November 1997, approximately  
Comments Date: 12181997  
Comments: 20,480 cubic yards of soil contaminated with lead, chromium and  
Comments Date: 12181997  
Comments: zinc, and 1,300 cubic yards of soil contaminated with petroleum  
Comments Date: 12181997  
Comments: hydrocarbons were removed from the site. Certified Site as  
Comments Date: 12181997  
Comments: being cleaned to residential standards.  
ID Name: CALSTARS CODE  
ID Value: 201002  
Alternate Name: KRAFTILE  
Alternate Name: Not reported  
Special Programs Code: Not reported  
Special Programs Name: Not reported

**EMI:**

Year: 1987  
County Code: 1  
Air Basin: SF  
Facility ID: 451  
Air District Name: BA  
SIC Code: 3253  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0  
Reactive Organic Gases Tons/Yr: 0  
Carbon Monoxide Emissions Tons/Yr: 1

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**KRAFTILE (Continued)**

1000230954

NOX - Oxides of Nitrogen Tons/Yr: 2  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 14  
Part. Matter 10 Micrometers and Smlr Tons/Yr:8

Year: 1990  
County Code: 1  
Air Basin: SF  
Facility ID: 451  
Air District Name: BA  
SIC Code: 3253  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0  
Reactive Organic Gases Tons/Yr: 0  
Carbon Monoxide Emissions Tons/Yr: 1  
NOX - Oxides of Nitrogen Tons/Yr: 2  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 27  
Part. Matter 10 Micrometers and Smlr Tons/Yr:15

Year: 1993  
County Code: 1  
Air Basin: SF  
Facility ID: 451  
Air District Name: BA  
SIC Code: 3253  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0  
Reactive Organic Gases Tons/Yr: 0  
Carbon Monoxide Emissions Tons/Yr: 1  
NOX - Oxides of Nitrogen Tons/Yr: 2  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 16  
Part. Matter 10 Micrometers and Smlr Tons/Yr:9

Year: 1995  
County Code: 1  
Air Basin: SF  
Facility ID: 451  
Air District Name: BA  
SIC Code: 3253  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0  
Reactive Organic Gases Tons/Yr: 0  
Carbon Monoxide Emissions Tons/Yr: 1  
NOX - Oxides of Nitrogen Tons/Yr: 2  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 12  
Part. Matter 10 Micrometers and Smlr Tons/Yr:7

Year: 1996

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**KRAFTILE (Continued)**

**1000230954**

County Code: 1  
Air Basin: SF  
Facility ID: 451  
Air District Name: BA  
SIC Code: 3253  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0  
Reactive Organic Gases Tons/Yr: 0  
Carbon Monoxide Emissions Tons/Yr: 1  
NOX - Oxides of Nitrogen Tons/Yr: 2  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 12  
Part. Matter 10 Micrometers and Smllr Tons/Yr:7

**CERS TANKS:**

Site ID: 223863  
CERS ID: SL0600102400  
Site Name: KRAFTILE COMPANY  
CERS Description: Cleanup Program Site

**Affiliation:**

Affiliation Type Desc: Regional Board Caseworker  
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)  
Entity Title: Not reported  
Affiliation Address: 1515 CLAY ST SUITE 1400  
Affiliation City: OAKLAND  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Site ID: 339078  
CERS ID: 01320029  
Site Name: KRAFTILE  
CERS Description: State Response

**Affiliation:**

Affiliation Type Desc: Supervisor  
Entity Name: Karen Toth  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**V99**            **KRAFTILE**  
**SSE**            **800 KRAFTILE ROAD**  
**1/2-1**          **FREMONT, CA 94536**  
**0.824 mi.**  
**4353 ft.**        **Site 2 of 2 in cluster V**

**RESPONSE**    **S113009682**  
**ENVIROSTOR**   **N/A**  
**HAZNET**

**Relative:**  
**Lower**  
**Actual:**  
**48 ft.**

**RESPONSE:**  
Facility ID: 1320029  
Site Type: State Response  
Site Type Detail: State Response or NPL  
Acres: 16  
National Priorities List: NO  
Cleanup Oversight Agencies: SMBRP  
Lead Agency Description: DTSC - Site Cleanup Program  
Project Manager: Not reported  
Supervisor: Karen Toth  
Division Branch: Cleanup Berkeley  
Site Code: 201002  
Site Mgmt. Req.: NONE SPECIFIED  
Assembly: 20  
Senate: 10  
Special Program Status: Not reported  
Status: Certified  
Status Date: 12/18/1997  
Restricted Use: NO  
Funding: Responsible Party  
Latitude: 37.58388  
Longitude: -122.0063  
APN: NONE SPECIFIED  
Past Use: MANUFACTURING - CERAMICS, MANUFACTURING - METAL  
Potential COC : Lead Chromium VI Zinc  
Confirmed COC: Lead Chromium VI Zinc  
Potential Description: SOIL  
Alias Name: Not reported  
Alias Type: Not reported

**Completed Info:**  
Completed Area Name: Not reported  
Completed Sub Area Name: Not reported  
Completed Document Type: Not reported  
Completed Date: Not reported  
Comments: Not reported

Future Area Name: Not reported  
Future Sub Area Name: Not reported  
Future Document Type: Not reported  
Future Due Date: Not reported  
Schedule Area Name: Not reported  
Schedule Sub Area Name: Not reported  
Schedule Document Type: Not reported  
Schedule Due Date: Not reported  
Schedule Revised Date: Not reported

**ENVIROSTOR:**  
Facility ID: 1320029  
Status: Certified  
Status Date: 12/18/1997  
Site Code: 201002  
Site Type: State Response



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**KRAFTILE (Continued)**

**S113009682**

Site Type Detailed: State Response or NPL  
Acres: 16  
NPL: NO  
Regulatory Agencies: SMBRP  
Lead Agency: SMBRP  
Program Manager: Not reported  
Supervisor: Karen Toth  
Division Branch: Cleanup Berkeley  
Assembly: 20  
Senate: 10  
Special Program: Not reported  
Restricted Use: NO  
Site Mgmt Req: NONE SPECIFIED  
Funding: Responsible Party  
Latitude: 37.58388  
Longitude: -122.0063  
APN: NONE SPECIFIED  
Past Use: MANUFACTURING - CERAMICS, MANUFACTURING - METAL  
Potential COC: Lead Chromium VI Zinc  
Confirmed COC: Lead Chromium VI Zinc  
Potential Description: SOIL  
Alias Name: Not reported  
Alias Type: Not reported

Completed Info:

Completed Area Name: Not reported  
Completed Sub Area Name: Not reported  
Completed Document Type: Not reported  
Completed Date: Not reported  
Comments: Not reported

Future Area Name: Not reported  
Future Sub Area Name: Not reported  
Future Document Type: Not reported  
Future Due Date: Not reported  
Schedule Area Name: Not reported  
Schedule Sub Area Name: Not reported  
Schedule Document Type: Not reported  
Schedule Due Date: Not reported  
Schedule Revised Date: Not reported

HAZNET:

Site Name: KRAFTILE COMPANY  
Year: 1997  
GEPaid: CAD981664527  
Contact: KRAFTILE COMPANY  
Telephone: 0000000000  
Mailing Name: Not reported  
Mailing Address: 265 APPLE HILL DR  
Mailing City,St,Zip: BRENTWOOD, CA 945130000  
Gen County: Not reported  
TSD EPA ID: CAD008252405  
TSD County: Not reported  
Tons: .8503  
CA Waste Code: 331-  
Method: R01-  
Facility County: 1

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**KRAFTILE (Continued)**

**S113009682**

Site Name: KRAFTILE COMPANY  
Year: 1997  
GEPaid: CAD981664527  
Contact: KRAFTILE COMPANY  
Telephone: 0000000000  
Mailing Name: Not reported  
Mailing Address: 265 APPLE HILL DR  
Mailing City,St,Zip: BRENTWOOD, CA 945130000  
Gen County: Not reported  
TSD EPA ID: CAT000646117  
TSD County: Not reported  
Tons: 15.1704  
CA Waste Code: 611-  
Method: -  
Facility County: 1

Site Name: KRAFTILE COMPANY  
Year: 1997  
GEPaid: CAD981664527  
Contact: KRAFTILE COMPANY  
Telephone: 0000000000  
Mailing Name: Not reported  
Mailing Address: 265 APPLE HILL DR  
Mailing City,St,Zip: BRENTWOOD, CA 945130000  
Gen County: Not reported  
TSD EPA ID: CAD980887418  
TSD County: Not reported  
Tons: .2085  
CA Waste Code: 221-  
Method: R01-  
Facility County: 1

Site Name: KRAFTILE COMPANY  
Year: 1997  
GEPaid: CAD981664527  
Contact: KRAFTILE COMPANY  
Telephone: 0000000000  
Mailing Name: Not reported  
Mailing Address: 265 APPLE HILL DR  
Mailing City,St,Zip: BRENTWOOD, CA 945130000  
Gen County: Not reported  
TSD EPA ID: CAD982042475  
TSD County: Not reported  
Tons: .2107  
CA Waste Code: 151-  
Method: D80-  
Facility County: 1

Site Name: KRAFTILE COMPANY  
Year: 1997  
GEPaid: CAD981664527  
Contact: KRAFTILE COMPANY  
Telephone: 0000000000  
Mailing Name: Not reported  
Mailing Address: 265 APPLE HILL DR  
Mailing City,St,Zip: BRENTWOOD, CA 945130000  
Gen County: Not reported

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**KRAFTILE (Continued)**

**S113009682**

TSD EPA ID: CAT000646117  
 TSD County: Not reported  
 Tons: .7300  
 CA Waste Code: 223-  
 Method: D80-  
 Facility County: 1

[Click this hyperlink](#) while viewing on your computer to access  
 12 additional CA\_HAZNET: record(s) in the EDR Site Report.

**100**  
**West**  
**1/2-1**  
**0.863 mi.**  
**4559 ft.**

**MET LABORATORIES**  
**33439 WESTERN AVE**  
**UNION CITY, CA 94587**

**CERS HAZ WASTE**  
**HWP**  
**CERS**

**S104574040**  
**N/A**

**Relative:**  
**Lower**  
**Actual:**  
**48 ft.**

CERS HAZ WASTE:  
 Site ID: 134385  
 CERS ID: 10003495  
 CERS Description: Hazardous Waste Generator

**Violations:**

Site ID: 134385  
 Site Name: MET Laboratories  
 Violation Date: 03-21-2016  
 Citation: HSC 6.95 25508.2 - California Health and Safety Code, Chapter 6.95, Section(s) 25508.2  
 Violation Description: Failure to annually review and electronically certify that the business plan is complete, accurate, and up-to-date.  
 Violation Notes: Returned to compliance on 05/06/2016. OBSERVATION: The facility has not annually reviewed and certified that the business plan is complete, accurate, and up-to-date. CERS was last updated on March 8, 2013. CORRECTIVE ACTION: Review, revise, and certify the business plan electronically in the California Environmental Reporting System (CERS) within 30 days.  
 Violation Division: Union City Environmental Programs  
 Violation Program: HMRRP  
 Violation Source: CERS

Site ID: 134385  
 Site Name: MET Laboratories  
 Violation Date: 03-21-2016  
 Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)  
 Violation Description: Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.  
 Violation Notes: Returned to compliance on 05/16/2016. OBSERVATION: Volumes for the compressed gases including propane, oxygen, methane, and nitrogen were under reported. Add Used Oil as a line item. CORRECTIVE ACTION: Complete and submit the Hazardous Materials Inventory Chemical Description page for all materials listed above electronically in the California Environmental Reporting System (CERS) within 30 days..  
 Violation Division: Union City Environmental Programs  
 Violation Program: HMRRP  
 Violation Source: CERS

Site ID: 134385

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MET LABORATORIES (Continued)**

**S104574040**

Site Name: MET Laboratories  
Violation Date: 03-21-2016  
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)  
Violation Description: Failure to properly label hazardous waste accumulation containers with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.  
Violation Notes: Returned to compliance on 05/06/2017. OBSERVATION: 5-gallon buckets and 55 gallon drums previously containing hazardous waste still had the hazardous waste label attached. These containers should be labeled Empty with the date emptied noted. CORRECTIVE ACTION: Immediately label these containers and ensure that all empty hazardous waste containers are marked with all the required information.  
Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Site ID: 134385  
Site Name: MET Laboratories  
Violation Date: 03-21-2016  
Citation: HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)  
Violation Description: Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.  
Violation Notes: Returned to compliance on 05/06/2016. OBSERVATION: Annual training documentation for all applicable employees was not available. Last annual refresher training was conducted in December 2012. New employees are trained within 6 months. CORRECTIVE ACTION: Submit documentation to the CUPA demonstrating that employees have received training on safe handling of hazardous materials and the Emergency Response Plan within 30 days.  
Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 134385  
Site Name: MET Laboratories  
Violation Date: 03-21-2016  
Citation: 22 CCR 15 66265.16 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.16  
Violation Description: Failure to provide employees within the first six months after the date of their employment, or assignment to the facility, or to work unsupervised, or to a new position at a facility with hazardous waste training to ensure employees are competent in the following areas: hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed, emergency response and emergency equipment, and procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment. In addition, the owner/operator shall ensure facility personnel take part in an annual review of the initial training and training records training records on current personnel shall be kept until closure of the facility. Training records on former employees shall be kept for at least three years from the date the employee last worked at the facility. The records shall include the following: the

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MET LABORATORIES (Continued)**

**S104574040**

Violation Notes: job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job; a written job description for each position, duties of facility personnel assigned to each position, and a written description of the type and amount of both introductory and continuing training that will be given to each person filling a position.  
Returned to compliance on 03/21/2016. OBSERVATION: The Owner/Operator failed to properly train personnel who handle hazardous waste. All employees shall be trained within six months of assignment and take part in an annual review of the initial training received. Training records on former employees shall be kept for at least three years from the date the employee last worked at the facility. [enter specific observations] CORRECTIVE ACTION: Provide employees with initial or refresher hazardous waste training as required. Submit a copy of the roster and the syllabus to the CUPA by within 30 days.

Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Site ID: 134385  
Site Name: MET Laboratories  
Violation Date: 03-21-2016  
Citation: 22 CCR 23 66273.34 - California Code of Regulations, Title 22, Chapter 23, Section(s) 66273.34

Violation Description: Failure to properly label the following categories of universal waste as: 1) Each batteries or the container in which the batteries are contained as "Universal Waste-Battery(ies)". 2) Each mercury-containing equipment or the container in which the mercury-containing equipment is contained as "Universal Waste -Mercury-Containing Equipment". 3) Each Florescent lamp or the container or package in which the lamps are contained as "Universal Waste-Lamp(s)". 4) Each electronic devices or the container or pallet in or on which the electronic devices are contained as "Universal Waste-Electronic Device(s)". 5) Each CRTs or the container or pallet in or on which the CRTs are contained as "Universal Waste-CRT(s)". 6) A container of CRT glass shall be labeled or marked clearly with the following phrase: "Universal Waste-CRT glass". 7) In lieu of labeling individual electronic devices, CRTs, and/or containers of CRT glass pursuant to subsections d) through f) of this section, a universal waste handler may combine, package, and accumulate those universal wastes in appropriate containers or within a designated area demarcated by boundaries that are clearly labeled with the applicable portion(s) of the following phrase: "Universal Waste-Electronic Device(s)/Universal Waste - CRT(s)/Universal Waste-CRT Glass".

Violation Notes: Returned to compliance on 05/06/2016. OBSERVATION: Various containers of batteries were labeled with a hazardous waste label. A generator shall label or mark universal waste with the words 'Universal Waste' and the type of waste (batteries, mercury containing equipment, lamps/bulbs, electronic devices, CRTs, aerosol cans). CORRECTIVE ACTION: Immediately label these wastes and ensure that all universal wastes are labeled with the required information.

Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Evaluation:  
Eval General Type: Compliance Evaluation Inspection

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MET LABORATORIES (Continued)**

**S104574040**

Eval Date: 03-21-2016  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: EPA ID No. CAD980892533 was verified to be active at the time of inspection.  
Eval Division: Union City Environmental Programs  
Eval Program: HW  
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 03-21-2016  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Routine Inspection. Met with Peter Demestihias, Operations Manager. CERS information was last submitted on March 8, 2013. This inspection report contains violations which must be corrected within 30 days. A separate email will be sent with information on the Small Business Program for 1) disposal of hazardous waste through Stop Waste 2) DTSC's fact sheet on managing Empty Containers, 3) Word version of the Emergency Response and Contingency Plan.  
Eval Division: Union City Environmental Programs  
Eval Program: HMRRP  
Eval Source: CERS

Enforcement Action:  
Site ID: 134385  
Site Name: MET Laboratories  
Site Address: 33439 WESTERN AVE  
Site City: UNION CITY  
Site Zip: 94587  
Enf Action Date: 03-21-2016  
Enf Action Type: Notice of Violation (Unified Program)  
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection  
Enf Action Notes: Not reported  
Enf Action Division: Union City Environmental Programs  
Enf Action Program: HMRRP  
Enf Action Source: CERS

Site ID: 134385  
Site Name: MET Laboratories  
Site Address: 33439 WESTERN AVE  
Site City: UNION CITY  
Site Zip: 94587  
Enf Action Date: 03-21-2016  
Enf Action Type: Notice of Violation (Unified Program)  
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection  
Enf Action Notes: Not reported  
Enf Action Division: Union City Environmental Programs  
Enf Action Program: HW  
Enf Action Source: CERS

Coordinates:  
Site ID: 134385  
Facility Name: MET Laboratories  
Env Int Type Code: HWG  
Program ID: 10003495

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MET LABORATORIES (Continued)**

**S104574040**

Coord Name: Not reported  
Ref Point Type Desc: Unknown  
Latitude: 37.594971  
Longitude: -122.034096

Affiliation:

Affiliation Type Desc: Facility Mailing Address  
Entity Name: Mailing Address  
Entity Title: Not reported  
Affiliation Address: 33439 Western Ave  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: Not reported

Affiliation Type Desc: Operator  
Entity Name: Peter Demestihias  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: (510) 214-4446

Affiliation Type Desc: CUPA District  
Entity Name: Union City Environmental Programs  
Entity Title: Not reported  
Affiliation Address: 34009 Alvarado-Niles Road  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: (510) 675-5360

Affiliation Type Desc: Identification Signer  
Entity Name: Peter Demestihias  
Entity Title: West Coast Ops Manager  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Property Owner  
Entity Name: Rob Frier  
Entity Title: Not reported  
Affiliation Address: 914 W Patapsco Ave  
Affiliation City: Baltimore  
Affiliation State: MD  
Affiliation Country: United States  
Affiliation Zip: 21230  
Affiliation Phone: (410) 949-1805

Affiliation Type Desc: Document Preparer

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MET LABORATORIES (Continued)**

**S104574040**

Entity Name: Peter Demestihias  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Environmental Contact  
Entity Name: Peter Demestihias  
Entity Title: Not reported  
Affiliation Address: 33439 Western Ave  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner  
Entity Name: MET Laboratories  
Entity Title: Not reported  
Affiliation Address: 914 W Patapsco Ave  
Affiliation City: Baltimore  
Affiliation State: MD  
Affiliation Country: United States  
Affiliation Zip: 21230  
Affiliation Phone: (410) 949-1805

Affiliation Type Desc: Parent Corporation  
Entity Name: MET Laboratories  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

HWP:  
EPA Id: CAD980892533  
Cleanup Status: CLOSED  
Latitude: 37.59493  
Longitude: -122.0341  
Facility Type: Historical - Non-Operating  
Facility Size: Not reported  
Team: Not reported  
Supervisor: Not reported  
Site Code: Not reported  
Assembly District: 20  
Senate District: 10  
Public Information Officer: Not reported  
Public Information Officer: Not reported

Closure:  
EPA Id: CAD980892533



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MET LABORATORIES (Continued)**

**S104574040**

Facility Type: Historical - Non-Operating  
Unit Names: Unit1  
Event Description: Closure Administrative - ISSUE CLOSURE VERIFICATION  
Actual Date: 11/20/2017

**CERS TANKS:**

Site ID: 134385  
CERS ID: 10003495  
Site Name: MET LABORATORIES  
CERS Description: Chemical Storage Facilities

**Violations:**

Site ID: 134385  
Site Name: MET Laboratories  
Violation Date: 03-21-2016  
Citation: HSC 6.95 25508.2 - California Health and Safety Code, Chapter 6.95, Section(s) 25508.2

Violation Description: Failure to annually review and electronically certify that the business plan is complete, accurate, and up-to-date.  
Violation Notes: Returned to compliance on 05/06/2016. OBSERVATION: The facility has not annually reviewed and certified that the business plan is complete, accurate, and up-to-date. CERS was last updated on March 8, 2013. CORRECTIVE ACTION: Review, revise, and certify the business plan electronically in the California Environmental Reporting System (CERS) within 30 days.

Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 134385  
Site Name: MET Laboratories  
Violation Date: 03-21-2016  
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)

Violation Description: Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.  
Violation Notes: Returned to compliance on 05/16/2016. OBSERVATION: Volumes for the compressed gases including propane, oxygen, methane, and nitrogen were under reported. Add Used Oil as a line item. CORRECTIVE ACTION: Complete and submit the Hazardous Materials Inventory Chemical Description page for all materials listed above electronically in the California Environmental Reporting System (CERS) within 30 days..

Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 134385  
Site Name: MET Laboratories  
Violation Date: 03-21-2016  
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)

Violation Description: Failure to properly label hazardous waste accumulation containers with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MET LABORATORIES (Continued)**

**S104574040**

Violation Notes: Returned to compliance on 05/06/2017. OBSERVATION: 5-gallon buckets and 55 gallon drums previously containing hazardous waste still had the hazardous waste label attached. These containers should be labeled Empty with the date emptied noted. CORRECTIVE ACTION: Immediately label these containers and ensure that all empty hazardous waste containers are marked with all the required information.

Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Site ID: 134385  
Site Name: MET Laboratories  
Violation Date: 03-21-2016  
Citation: HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)

Violation Description: Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.

Violation Notes: Returned to compliance on 05/06/2016. OBSERVATION: Annual training documentation for all applicable employees was not available. Last annual refresher training was conducted in December 2012. New employees are trained within 6 months. CORRECTIVE ACTION: Submit documentation to the CUPA demonstrating that employees have received training on safe handling of hazardous materials and the Emergency Response Plan within 30 days.

Violation Division: Union City Environmental Programs  
Violation Program: HMRRP  
Violation Source: CERS

Site ID: 134385  
Site Name: MET Laboratories  
Violation Date: 03-21-2016  
Citation: 22 CCR 15 66265.16 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.16

Violation Description: Failure to provide employees within the first six months after the date of their employment, or assignment to the facility, or to work unsupervised, or to a new position at a facility with hazardous waste training to ensure employees are competent in the following areas: hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed, emergency response and emergency equipment, and procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment. In addition, the owner/operator shall ensure facility personnel take part in an annual review of the initial training and training records training records on current personnel shall be kept until closure of the facility. Training records on former employees shall be kept for at least three years from the date the employee last worked at the facility. The records shall include the following: the job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job; a written job description for each position, duties of facility personnel assigned to each position, and a written description of the type and amount of both introductory and continuing training that will be given to each person filling a position.

Violation Notes: Returned to compliance on 03/21/2016. OBSERVATION: The Owner/Operator failed to properly train personnel who handle hazardous waste. All

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**MET LABORATORIES (Continued)**

**S104574040**

employees shall be trained within six months of assignment and take part in an annual review of the initial training received. Training records on former employees shall be kept for at least three years from the date the employee last worked at the facility. [enter specific observations] CORRECTIVE ACTION: Provide employees with initial or refresher hazardous waste training as required. Submit a copy of the roster and the syllabus to the CUPA by within 30 days.

Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Site ID: 134385  
Site Name: MET Laboratories  
Violation Date: 03-21-2016  
Citation: 22 CCR 23 66273.34 - California Code of Regulations, Title 22, Chapter 23, Section(s) 66273.34

Violation Description: Failure to properly label the following categories of universal waste as: 1) Each batteries or the container in which the batteries are contained as "Universal Waste-Battery(ies)". 2) Each mercury-containing equipment or the container in which the mercury-containing equipment is contained as "Universal Waste -Mercury-Containing Equipment". 3) Each Florescent lamp or the container or package in which the lamps are contained as "Universal Waste-Lamp(s)". 4) Each electronic devices or the container or pallet in or on which the electronic devices are contained as "Universal Waste-Electronic Device(s)". 5) Each CRTs or the container or pallet in or on which the CRTs are contained as "Universal Waste-CRT(s)". 6) A container of CRT glass shall be labeled or marked clearly with the following phrase: "Universal Waste-CRT glass". 7) In lieu of labeling individual electronic devices, CRTs, and/or containers of CRT glass pursuant to subsections d) through f) of this section, a universal waste handler may combine, package, and accumulate those universal wastes in appropriate containers or within a designated area demarcated by boundaries that are clearly labeled with the applicable portion(s) of the following phrase: "Universal Waste-Electronic Device(s)/Universal Waste - CRT(s)/Universal Waste-CRT Glass".

Violation Notes: Returned to compliance on 05/06/2016. OBSERVATION: Various containers of batteries were labeled with a hazardous waste label. A generator shall label or mark universal waste with the words 'Universal Waste' and the type of waste (batteries, mercury containing equipment, lamps/bulbs, electronic devices, CRTs, aerosol cans). CORRECTIVE ACTION: Immediately label these wastes and ensure that all universal wastes are labeled with the required information.

Violation Division: Union City Environmental Programs  
Violation Program: HW  
Violation Source: CERS

Evaluation:  
Eval General Type: Compliance Evaluation Inspection  
Eval Date: 03-21-2016  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: EPA ID No. CAD980892533 was verified to be active at the time of inspection.  
Eval Division: Union City Environmental Programs  
Eval Program: HW  
Eval Source: CERS

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**MET LABORATORIES (Continued)**

**S104574040**

Eval General Type: Compliance Evaluation Inspection  
Eval Date: 03-21-2016  
Violations Found: Yes  
Eval Type: Routine done by local agency  
Eval Notes: Routine Inspection. Met with Peter Demestihias, Operations Manager. CERS information was last submitted on March 8, 2013. This inspection report contains violations which must be corrected within 30 days. A separate email will be sent with information on the Small Business Program for 1) disposal of hazardous waste through Stop Waste 2) DTSC's fact sheet on managing Empty Containers, 3) Word version of the Emergency Response and Contingency Plan.  
Eval Division: Union City Environmental Programs  
Eval Program: HMRRP  
Eval Source: CERS

**Enforcement Action:**

Site ID: 134385  
Site Name: MET Laboratories  
Site Address: 33439 WESTERN AVE  
Site City: UNION CITY  
Site Zip: 94587  
Enf Action Date: 03-21-2016  
Enf Action Type: Notice of Violation (Unified Program)  
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection  
Enf Action Notes: Not reported  
Enf Action Division: Union City Environmental Programs  
Enf Action Program: HMRRP  
Enf Action Source: CERS

Site ID: 134385  
Site Name: MET Laboratories  
Site Address: 33439 WESTERN AVE  
Site City: UNION CITY  
Site Zip: 94587  
Enf Action Date: 03-21-2016  
Enf Action Type: Notice of Violation (Unified Program)  
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection  
Enf Action Notes: Not reported  
Enf Action Division: Union City Environmental Programs  
Enf Action Program: HW  
Enf Action Source: CERS

**Coordinates:**

Site ID: 134385  
Facility Name: MET Laboratories  
Env Int Type Code: HWG  
Program ID: 10003495  
Coord Name: Not reported  
Ref Point Type Desc: Unknown  
Latitude: 37.594971  
Longitude: -122.034096

**Affiliation:**

Affiliation Type Desc: Facility Mailing Address  
Entity Name: Mailing Address  
Entity Title: Not reported

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**MET LABORATORIES (Continued)**

**S104574040**

Affiliation Address: 33439 Western Ave  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: Not reported

Affiliation Type Desc: Operator  
Entity Name: Peter Demestihias  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: (510) 214-4446

Affiliation Type Desc: CUPA District  
Entity Name: Union City Environmental Programs  
Entity Title: Not reported  
Affiliation Address: 34009 Alvarado-Niles Road  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: (510) 675-5360

Affiliation Type Desc: Identification Signer  
Entity Name: Peter Demestihias  
Entity Title: West Coast Ops Manager  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Affiliation Type Desc: Property Owner  
Entity Name: Rob Frier  
Entity Title: Not reported  
Affiliation Address: 914 W Patapsco Ave  
Affiliation City: Baltimore  
Affiliation State: MD  
Affiliation Country: United States  
Affiliation Zip: 21230  
Affiliation Phone: (410) 949-1805

Affiliation Type Desc: Document Preparer  
Entity Name: Peter Demestihias  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

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**MET LABORATORIES (Continued)**

**S104574040**

Affiliation Type Desc: Environmental Contact  
Entity Name: Peter Demestihias  
Entity Title: Not reported  
Affiliation Address: 33439 Western Ave  
Affiliation City: Union City  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner  
Entity Name: MET Laboratories  
Entity Title: Not reported  
Affiliation Address: 914 W Patapsco Ave  
Affiliation City: Baltimore  
Affiliation State: MD  
Affiliation Country: United States  
Affiliation Zip: 21230  
Affiliation Phone: (410) 949-1805

Affiliation Type Desc: Parent Corporation  
Entity Name: MET Laboratories  
Entity Title: Not reported  
Affiliation Address: Not reported  
Affiliation City: Not reported  
Affiliation State: Not reported  
Affiliation Country: Not reported  
Affiliation Zip: Not reported  
Affiliation Phone: Not reported

Site ID: 244849  
CERS ID: CAD980892533  
Site Name: MET LABORATORIES  
CERS Description: Hazardous Waste

**Affiliation:**

Affiliation Type Desc: Facility Contact  
Entity Name: Peter Demestihias  
Entity Title: Not reported  
Affiliation Address: 33439 WESTERN AVE  
Affiliation City: UNION CITY  
Affiliation State: CA  
Affiliation Country: Not reported  
Affiliation Zip: 94587  
Affiliation Phone: 4082074796

Affiliation Type Desc: Facility Owner  
Entity Name: Rob Frier  
Entity Title: Not reported  
Affiliation Address: 914 W PATAPSCO AVE  
Affiliation City: BALTIMORE  
Affiliation State: MD  
Affiliation Country: Not reported  
Affiliation Zip: 212303415  
Affiliation Phone: 4103543300

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**101**  
**West**  
**1/2-1**  
**0.900 mi.**  
**4753 ft.**  
  
**Relative:**  
**Lower**  
  
**Actual:**  
**45 ft.**

**AMCOR PACKAGING DISTRIBUTION DBA MANUFACTURED PACK**  
**33463 WESTERN AVE**  
**UNION CITY, CA 94587**

**RCRA-SQG 1000182235**  
**ENVIROSTOR CAD982413734**  
**UST**  
**SWEEPS UST**  
**FINDS**  
**ECHO**  
**EMI**  
**HAZNET**  
**NPDES**  
**WDS**  
**CIWQS**  
**CERS**

**RCRA-SQG:**

Date form received by agency: 09/01/1996  
 Facility name: MERCURY CONTAINER CORP  
 Facility address: 33463 WESTERN AVE  
 UNION CITY, CA 94587  
  
 EPA ID: CAD982413734  
 Contact: Not reported  
 Contact address: Not reported  
 Contact country: US  
 Contact telephone: Not reported  
 Contact email: Not reported  
 EPA Region: 09  
 Land type: Facility is not located on Indian land. Additional information is not known.  
 Classification: Small Small Quantity Generator  
 Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

**Owner/Operator Summary:**

Owner/operator name: SUNCLIPSE INC  
 Owner/operator address: NOT REQUIRED  
 NOT REQUIRED, ME 99999  
  
 Owner/operator country: Not reported  
 Owner/operator telephone: 415-555-1212  
 Owner/operator email: Not reported  
 Owner/operator fax: Not reported  
 Owner/operator extension: Not reported  
 Legal status: Private  
 Owner/Operator Type: Owner  
 Owner/Op start date: Not reported  
 Owner/Op end date: Not reported  
  
 Owner/operator name: NOT REQUIRED  
 Owner/operator address: NOT REQUIRED  
 NOT REQUIRED, ME 99999  
  
 Owner/operator country: Not reported  
 Owner/operator telephone: 415-555-1212  
 Owner/operator email: Not reported  
 Owner/operator fax: Not reported  
 Owner/operator extension: Not reported  
 Legal status: Private  
 Owner/Operator Type: Operator  
 Owner/Op start date: Not reported

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**AMCOR PACKAGING DISTRIBUTION DBA MANUFACTURED PACKAGING PROD (Continued)**

**1000182235**

Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): No  
Recycler of hazardous waste: No  
Transporter of hazardous waste: No  
Treater, storer or disposer of HW: No  
Underground injection activity: No  
On-site burner exemption: No  
Furnace exemption: No  
Used oil fuel burner: No  
Used oil processor: No  
User oil refiner: No  
Used oil fuel marketer to burner: No  
Used oil Specification marketer: No  
Used oil transfer facility: No  
Used oil transporter: No

Historical Generators:

Date form received by agency: 04/28/1989  
Site name: MERCURY CONTAINER CORP  
Classification: Large Quantity Generator

Violation Status: No violations found

Evaluation Action Summary:

Evaluation date: 12/14/1990  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State Contractor/Grantee

ENVIROSTOR:

Facility ID: 71003035  
Status: Inactive - Needs Evaluation  
Status Date: Not reported  
Site Code: Not reported  
Site Type: Tiered Permit  
Site Type Detailed: Tiered Permit  
Acres: Not reported  
NPL: NO  
Regulatory Agencies: NONE SPECIFIED  
Lead Agency: NONE SPECIFIED  
Program Manager: Not reported  
Supervisor: Not reported  
Division Branch: Cleanup Berkeley  
Assembly: 20  
Senate: 10  
Special Program: Not reported  
Restricted Use: NO  
Site Mgmt Req: NONE SPECIFIED  
Funding: Not reported  
Latitude: 37.59417  
Longitude: -122.0349  
APN: NONE SPECIFIED



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**AMCOR PACKAGING DISTRIBUTION DBA MANUFACTURED PACKAGING PROD (Continued)**

**1000182235**

Past Use: NONE SPECIFIED  
Potential COC: NONE SPECIFIED  
Confirmed COC: NONE SPECIFIED  
Potential Description: NONE SPECIFIED  
Alias Name: CAD982413734  
Alias Type: EPA Identification Number  
Alias Name: 110002430209  
Alias Type: EPA (FRS #)  
Alias Name: 71003035  
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Phase 1  
Completed Date: 12/31/1996  
Comments: Phase 1 checklist indicates no further investigation needed.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Correspondence  
Completed Date: 08/06/2018  
Comments: Uploaded letter into the Envirostor only

Future Area Name: Not reported  
Future Sub Area Name: Not reported  
Future Document Type: Not reported  
Future Due Date: Not reported  
Schedule Area Name: Not reported  
Schedule Sub Area Name: Not reported  
Schedule Document Type: Not reported  
Schedule Due Date: Not reported  
Schedule Revised Date: Not reported

UST:

Facility ID: 01-011-001001  
Permitting Agency: UNION CITY, CITY OF  
Latitude: 37.595456  
Longitude: -122.033632

SWEEPS UST:

Status: Active  
Comp Number: 1001  
Number: 1  
Board Of Equalization: Not reported  
Referral Date: 04-13-90  
Action Date: 04-13-90  
Created Date: 04-13-90  
Owner Tank Id: L158065  
SWRCB Tank Id: 01-011-001001-000001  
Tank Status: A  
Capacity: 10000  
Active Date: 04-13-90  
Tank Use: M.V. FUEL  
STG: P  
Content: DIESEL  
Number Of Tanks: 1

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**AMCOR PACKAGING DISTRIBUTION DBA MANUFACTURED PACKAGING PROD (Continued)**

**1000182235**

**FINDS:**

Registry ID: 110002430209

Environmental Interest/Information System  
AIR EMISSIONS CLASSIFICATION UNKNOWN

California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Registry ID: 110057040955

Environmental Interest/Information System  
STATE MASTER

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

**ECHO:**

Envid: 1000182235  
Registry ID: 110002430209  
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110002430209>

**EMI:**

Year: 1995  
County Code: 1  
Air Basin: SF  
Facility ID: 8581  
Air District Name: BA  
SIC Code: 2653  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 6  
Reactive Organic Gases Tons/Yr: 6  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smllr Tons/Yr:0

Year: 1996  
County Code: 1  
Air Basin: SF  
Facility ID: 8581  
Air District Name: BA

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**AMCOR PACKAGING DISTRIBUTION DBA MANUFACTURED PACKAGING PROD (Continued)**

**1000182235**

SIC Code: 2653  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 6  
Reactive Organic Gases Tons/Yr: 6  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 1997  
County Code: 1  
Air Basin: SF  
Facility ID: 8581  
Air District Name: BA  
SIC Code: 2653  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0  
Reactive Organic Gases Tons/Yr: 0  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 1  
Part. Matter 10 Micrometers and Smlr Tons/Yr:1

Year: 1998  
County Code: 1  
Air Basin: SF  
Facility ID: 8581  
Air District Name: BA  
SIC Code: 2653  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 1  
Reactive Organic Gases Tons/Yr: 1  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 10  
Part. Matter 10 Micrometers and Smlr Tons/Yr:9

Year: 1999  
County Code: 1  
Air Basin: SF  
Facility ID: 8581  
Air District Name: BA  
SIC Code: 2653  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 1  
Reactive Organic Gases Tons/Yr: 1

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**AMCOR PACKAGING DISTRIBUTION DBA MANUFACTURED PACKAGING PROD (Continued)**

**1000182235**

Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 10  
Part. Matter 10 Micrometers and Smllr Tons/Yr:7

Year: 2000  
County Code: 1  
Air Basin: SF  
Facility ID: 8581  
Air District Name: BA  
SIC Code: 2653  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 1  
Reactive Organic Gases Tons/Yr: 1  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 10  
Part. Matter 10 Micrometers and Smllr Tons/Yr:7

Year: 2001  
County Code: 1  
Air Basin: SF  
Facility ID: 8581  
Air District Name: BA  
SIC Code: 2653  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 1  
Reactive Organic Gases Tons/Yr: 1  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 10  
Part. Matter 10 Micrometers and Smllr Tons/Yr:7

Year: 2002  
County Code: 1  
Air Basin: SF  
Facility ID: 8581  
Air District Name: BA  
SIC Code: 2653  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 3  
Reactive Organic Gases Tons/Yr: 2  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 10  
Part. Matter 10 Micrometers and Smllr Tons/Yr:7

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EPA ID Number

**AMCOR PACKAGING DISTRIBUTION DBA MANUFACTURED PACKAGING PROD (Continued)**

**1000182235**

Year: 2003  
County Code: 1  
Air Basin: SF  
Facility ID: 8581  
Air District Name: BA  
SIC Code: 2653  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 1  
Reactive Organic Gases Tons/Yr: 0  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 10  
Part. Matter 10 Micrometers and Smlr Tons/Yr:7

Year: 2004  
County Code: 1  
Air Basin: SF  
Facility ID: 8581  
Air District Name: BA  
SIC Code: 2653  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0.591  
Reactive Organic Gases Tons/Yr: 0.4601924  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 10.25  
Part. Matter 10 Micrometers and Smlr Tons/Yr:7.175

Year: 2005  
County Code: 1  
Air Basin: SF  
Facility ID: 8581  
Air District Name: BA  
SIC Code: 2653  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: .484  
Reactive Organic Gases Tons/Yr: .3531924  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 10.25  
Part. Matter 10 Micrometers and Smlr Tons/Yr:7.175

Year: 2006  
County Code: 1  
Air Basin: SF  
Facility ID: 8581  
Air District Name: BA  
SIC Code: 2653

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**AMCOR PACKAGING DISTRIBUTION DBA MANUFACTURED PACKAGING PROD (Continued)**

**1000182235**

Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: .878  
Reactive Organic Gases Tons/Yr: .878  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 10.25  
Part. Matter 10 Micrometers and Smlr Tons/Yr:7.175

Year: 2007  
County Code: 1  
Air Basin: SF  
Facility ID: 8581  
Air District Name: BA  
SIC Code: 2653  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: .878  
Reactive Organic Gases Tons/Yr: .878  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 10.25  
Part. Matter 10 Micrometers and Smlr Tons/Yr:7.175

Year: 2008  
County Code: 1  
Air Basin: SF  
Facility ID: 8581  
Air District Name: BA  
SIC Code: 2653  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: .878  
Reactive Organic Gases Tons/Yr: .878  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 10.25  
Part. Matter 10 Micrometers and Smlr Tons/Yr:7.175

Year: 2009  
County Code: 1  
Air Basin: SF  
Facility ID: 8581  
Air District Name: BA  
SIC Code: 2653  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 1.0069999999999999  
Reactive Organic Gases Tons/Yr: 1.0069999999999999  
Carbon Monoxide Emissions Tons/Yr: 0

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**AMCOR PACKAGING DISTRIBUTION DBA MANUFACTURED PACKAGING PROD (Continued)**

**1000182235**

NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 10.25  
Part. Matter 10 Micrometers and Smlr Tons/Yr:7.1749999999999998

Year: 2010  
County Code: 1  
Air Basin: SF  
Facility ID: 8581  
Air District Name: BA  
SIC Code: 2653  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 1.0069999999999999  
Reactive Organic Gases Tons/Yr: 1.0069999999999999  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 14.6428571428571  
Part. Matter 10 Micrometers and Smlr Tons/Yr:10.25

Year: 2011  
County Code: 1  
Air Basin: SF  
Facility ID: 8581  
Air District Name: BA  
SIC Code: 2653  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 1.007  
Reactive Organic Gases Tons/Yr: 1.007  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2012  
County Code: 1  
Air Basin: SF  
Facility ID: 8581  
Air District Name: BA  
SIC Code: 2653  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 1.007  
Reactive Organic Gases Tons/Yr: 1.007  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 14.642857143  
Part. Matter 10 Micrometers and Smlr Tons/Yr:10.25

Year: 2013

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**AMCOR PACKAGING DISTRIBUTION DBA MANUFACTURED PACKAGING PROD (Continued)**

**1000182235**

County Code: 1  
Air Basin: SF  
Facility ID: 8581  
Air District Name: BA  
SIC Code: 2653  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0.965  
Reactive Organic Gases Tons/Yr: 0.965  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 14.643  
Part. Matter 10 Micrometers and Smlr Tons/Yr:10.25

Year: 2014  
County Code: 1  
Air Basin: SF  
Facility ID: 8581  
Air District Name: BA  
SIC Code: 2653  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 4.603330876  
Reactive Organic Gases Tons/Yr: 0  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 14.642857198  
Part. Matter 10 Micrometers and Smlr Tons/Yr:10.249999929

Year: 2015  
County Code: 1  
Air Basin: SF  
Facility ID: 8581  
Air District Name: BA  
SIC Code: 2653  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0.133589968  
Reactive Organic Gases Tons/Yr: 0.133589968  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 14.64286  
Part. Matter 10 Micrometers and Smlr Tons/Yr:10.25

Year: 2016  
County Code: 1  
Air Basin: SF  
Facility ID: 8581  
Air District Name: BA  
SIC Code: 2653  
Air District Name: BAY AREA AQMD



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**AMCOR PACKAGING DISTRIBUTION DBA MANUFACTURED PACKAGING PROD (Continued)**

**1000182235**

Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0.134114653  
Reactive Organic Gases Tons/Yr: 0.134114653  
Carbon Monoxide Emissions Tons/Yr: Not reported  
NOX - Oxides of Nitrogen Tons/Yr: Not reported  
SOX - Oxides of Sulphur Tons/Yr: Not reported  
Particulate Matter Tons/Yr: 14.6428572  
Part. Matter 10 Micrometers and Smllr Tons/Yr:10.24999993

**HAZNET:**

Site Name: MPP UNION CITY  
Year: 2017  
GEPaid: CAD982413734  
Contact: CRISTINA COOK  
Telephone: 7605107084  
Mailing Name: Not reported  
Mailing Address: 6600 VALLEY VIEW ST.  
Mailing City,St,Zip: BUENA PARK, CA 928315141  
Gen County: Alameda  
TSD EPA ID: CAD982444481  
TSD County: San Bernardino  
Tons: 3.375  
CA Waste Code: 181-Other inorganic solid waste  
Method: H141-Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)  
Facility County: Alameda

Site Name: MPP UNION CITY  
Year: 2017  
GEPaid: CAD982413734  
Contact: CRISTINA COOK  
Telephone: 7605107084  
Mailing Name: Not reported  
Mailing Address: 6600 VALLEY VIEW ST.  
Mailing City,St,Zip: BUENA PARK, CA 928315141  
Gen County: Alameda  
TSD EPA ID: CA0000084517  
TSD County: Sacramento  
Tons: 0.4242  
CA Waste Code: 134-Aqueous solution with total organic residues less than 10 percent  
Method: H141-Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)  
Facility County: Alameda

Site Name: ORORA NORTH AMERICA -DBA MPP UNION CITY  
Year: 2016  
GEPaid: CAD982413734  
Contact: CRISTINA COOK  
Telephone: 7605107084  
Mailing Name: Not reported  
Mailing Address: 6600 VALLEY VIEW ST.  
Mailing City,St,Zip: BUENA PARK, CA 928315141  
Gen County: Alameda  
TSD EPA ID: CAD982444481  
TSD County: San Bernardino  
Tons: 1.7

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**AMCOR PACKAGING DISTRIBUTION DBA MANUFACTURED PACKAGING PROD (Continued)**

**1000182235**

CA Waste Code: 181-  
Method: H141-  
Facility County: Alameda

Site Name: ORORA NORTH AMERICA -DBA MPP UNION CITY  
Year: 2016  
GEPaid: CAD982413734  
Contact: CRISTINA COOK  
Telephone: 7605107084  
Mailing Name: Not reported  
Mailing Address: 6600 VALLEY VIEW ST.  
Mailing City,St,Zip: BUENA PARK, CA 928315141  
Gen County: Alameda  
TSD EPA ID: CA0000084517  
TSD County: Sacramento  
Tons: 0.4578  
CA Waste Code: 134-  
Method: H141-  
Facility County: Alameda

Site Name: ORORA NORTH AMERICA -DBA MPP UNION CITY  
Year: 2015  
GEPaid: CAD982413734  
Contact: CRISTINA COOK  
Telephone: 7605107084  
Mailing Name: Not reported  
Mailing Address: 6600 VALLEY VIEW ST.  
Mailing City,St,Zip: BUENA PARK, CA 928315141  
Gen County: Alameda  
TSD EPA ID: CAD982444481  
TSD County: San Bernardino  
Tons: 7.425  
CA Waste Code: 181-  
Method: H141-  
Facility County: Alameda

[Click this hyperlink](#) while viewing on your computer to access  
130 additional CA\_HAZNET: record(s) in the EDR Site Report.

**NPDES:**

Facility Status: Active  
NPDES Number: CAS000001  
Region: 2  
Agency Number: 0  
Regulatory Measure ID: 180805  
Place ID: Not reported  
Order Number: 97-03-DWQ  
WDID: 2 01I006301  
Regulatory Measure Type: Enrollee  
Program Type: Industrial  
Adoption Date Of Regulatory Measure: Not reported  
Effective Date Of Regulatory Measure: 04/24/1992  
Termination Date Of Regulatory Measure: Not reported  
Expiration Date Of Regulatory Measure: Not reported  
Discharge Address: 33463 Western Ave  
Discharge Name: MPP Union City  
Discharge City: Union City

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**AMCOR PACKAGING DISTRIBUTION DBA MANUFACTURED PACKAGING PROD (Continued)**

**1000182235**

Discharge State: California  
Discharge Zip: 94587  
Status: Not reported  
Status Date: Not reported  
Operator Name: Not reported  
Operator Address: Not reported  
Operator City: Not reported  
Operator State: Not reported  
Operator Zip: Not reported

NPDES as of 03/2018:  
NPDES Number: CAS000001  
Status: Active  
Agency Number: 0  
Region: 2  
Regulatory Measure ID: 180805  
Order Number: 97-03-DWQ  
Regulatory Measure Type: Enrollee  
Place ID: Not reported  
WDID: 2 01I006301  
Program Type: Industrial  
Adoption Date Of Regulatory Measure: Not reported  
Effective Date Of Regulatory Measure: 04/24/1992  
Expiration Date Of Regulatory Measure: Not reported  
Termination Date Of Regulatory Measure: Not reported  
Discharge Name: MPP Union City  
Discharge Address: 33463 Western Ave  
Discharge City: Union City  
Discharge State: California  
Discharge Zip: 94587  
Received Date: Not reported  
Processed Date: Not reported  
Status: Not reported  
Status Date: Not reported  
Place Size: Not reported  
Place Size Unit: Not reported  
Contact: Not reported  
Contact Title: Not reported  
Contact Phone: Not reported  
Contact Phone Ext: Not reported  
Contact Email: Not reported  
Operator Name: Not reported  
Operator Address: Not reported  
Operator City: Not reported  
Operator State: Not reported  
Operator Zip: Not reported  
Operator Contact: Not reported  
Operator Contact Title: Not reported  
Operator Contact Phone: Not reported  
Operator Contact Phone Ext: Not reported  
Operator Contact Email: Not reported  
Operator Type: Not reported  
Developer: Not reported  
Developer Address: Not reported  
Developer City: Not reported  
Developer State: Not reported  
Developer Zip: Not reported  
Developer Contact: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

AMCOR PACKAGING DISTRIBUTION DBA MANUFACTURED PACKAGING PROD (Continued)

1000182235

Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commercial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	Not reported
Receiving Water Name:	Not reported
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported
NPDES Number:	Not reported
Status:	Not reported
Agency Number:	Not reported
Region:	2
Regulatory Measure ID:	180805
Order Number:	Not reported
Regulatory Measure Type:	Industrial
Place ID:	Not reported
WDID:	2 01I006301
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Received Date:	05/09/2008
Processed Date:	04/24/1992
Status:	Active
Status Date:	04/24/1992
Place Size:	196000
Place Size Unit:	SqFt
Contact:	Jeff Messinger
Contact Title:	Not reported
Contact Phone:	714-562-6110

Map ID  
Direction  
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MAP FINDINGS

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Database(s)

EDR ID Number  
EPA ID Number

**AMCOR PACKAGING DISTRIBUTION DBA MANUFACTURED PACKAGING PROD (Continued)**

**1000182235**

Contact Phone Ext:	Not reported
Contact Email:	jeffrey.messinger@ororagroup.com
Operator Name:	MPP Union City
Operator Address:	33463 Western Ave
Operator City:	Union City
Operator State:	California
Operator Zip:	94587
Operator Contact:	Darrell Chapman
Operator Contact Title:	Not reported
Operator Contact Phone:	510-487-1211
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	darrell.chapman@mppmfg.com
Operator Type:	Private Business
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	California
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	714-562-6110
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commercial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	N
Receiving Water Name:	Alameda Creek
Certifier:	Kevin Hare
Certifier Title:	Director of EHS
Certification Date:	14-JUL-17
Primary Sic:	2653-Corrugated and Solid Fiber Boxes
Secondary Sic:	Not reported
Tertiary Sic:	Not reported
Facility Status:	Not reported
NPDES Number:	Not reported
Region:	Not reported
Agency Number:	Not reported
Regulatory Measure ID:	Not reported
Place ID:	Not reported
Order Number:	Not reported
WDID:	2 011006301

Map ID  
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MAP FINDINGS

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Database(s)

EDR ID Number  
EPA ID Number

**AMCOR PACKAGING DISTRIBUTION DBA MANUFACTURED PACKAGING PROD (Continued)**

**1000182235**

Regulatory Measure Type: Industrial  
Program Type: Not reported  
Adoption Date Of Regulatory Measure: Not reported  
Effective Date Of Regulatory Measure: Not reported  
Termination Date Of Regulatory Measure: Not reported  
Expiration Date Of Regulatory Measure: Not reported  
Discharge Address: Not reported  
Discharge Name: Not reported  
Discharge City: Not reported  
Discharge State: Not reported  
Discharge Zip: Not reported  
Status: Active  
Status Date: 04/24/1992  
Operator Name: MPP Union City  
Operator Address: 33463 Western Ave  
Operator City: Union City  
Operator State: California  
Operator Zip: 94587

NPDES as of 03/2018:  
NPDES Number: CAS000001  
Status: Active  
Agency Number: 0  
Region: 2  
Regulatory Measure ID: 180805  
Order Number: 97-03-DWQ  
Regulatory Measure Type: Enrollee  
Place ID: Not reported  
WDID: 2 011006301  
Program Type: Industrial  
Adoption Date Of Regulatory Measure: Not reported  
Effective Date Of Regulatory Measure: 04/24/1992  
Expiration Date Of Regulatory Measure: Not reported  
Termination Date Of Regulatory Measure: Not reported  
Discharge Name: MPP Union City  
Discharge Address: 33463 Western Ave  
Discharge City: Union City  
Discharge State: California  
Discharge Zip: 94587  
Received Date: Not reported  
Processed Date: Not reported  
Status: Not reported  
Status Date: Not reported  
Place Size: Not reported  
Place Size Unit: Not reported  
Contact: Not reported  
Contact Title: Not reported  
Contact Phone: Not reported  
Contact Phone Ext: Not reported  
Contact Email: Not reported  
Operator Name: Not reported  
Operator Address: Not reported  
Operator City: Not reported  
Operator State: Not reported  
Operator Zip: Not reported  
Operator Contact: Not reported  
Operator Contact Title: Not reported  
Operator Contact Phone: Not reported

Map ID  
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MAP FINDINGS

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Database(s)

EDR ID Number  
EPA ID Number

**AMCOR PACKAGING DISTRIBUTION DBA MANUFACTURED PACKAGING PROD (Continued)**

**1000182235**

Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported
Operator Type:	Not reported
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	Not reported
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commercial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	Not reported
Receiving Water Name:	Not reported
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported
NPDES Number:	Not reported
Status:	Not reported
Agency Number:	Not reported
Region:	2
Regulatory Measure ID:	180805
Order Number:	Not reported
Regulatory Measure Type:	Industrial
Place ID:	Not reported
WDID:	2 01I006301
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**AMCOR PACKAGING DISTRIBUTION DBA MANUFACTURED PACKAGING PROD (Continued)**

**1000182235**

Received Date: 05/09/2008  
Processed Date: 04/24/1992  
Status: Active  
Status Date: 04/24/1992  
Place Size: 196000  
Place Size Unit: SqFt  
Contact: Jeff Messinger  
Contact Title: Not reported  
Contact Phone: 714-562-6110  
Contact Phone Ext: Not reported  
Contact Email: jeffrey.messinger@ororagroup.com  
Operator Name: MPP Union City  
Operator Address: 33463 Western Ave  
Operator City: Union City  
Operator State: California  
Operator Zip: 94587  
Operator Contact: Darrell Chapman  
Operator Contact Title: Not reported  
Operator Contact Phone: 510-487-1211  
Operator Contact Phone Ext: Not reported  
Operator Contact Email: darrell.chapman@mppmfg.com  
Operator Type: Private Business  
Developer: Not reported  
Developer Address: Not reported  
Developer City: Not reported  
Developer State: California  
Developer Zip: Not reported  
Developer Contact: Not reported  
Developer Contact Title: Not reported  
Constype Linear Utility Ind: Not reported  
Emergency Phone: 714-562-6110  
Emergency Phone Ext: Not reported  
Constype Above Ground Ind: Not reported  
Constype Below Ground Ind: Not reported  
Constype Cable Line Ind: Not reported  
Constype Comm Line Ind: Not reported  
Constype Commercial Ind: Not reported  
Constype Electrical Line Ind: Not reported  
Constype Gas Line Ind: Not reported  
Constype Industrial Ind: Not reported  
Constype Other Description: Not reported  
Constype Other Ind: Not reported  
Constype Recons Ind: Not reported  
Constype Residential Ind: Not reported  
Constype Transport Ind: Not reported  
Constype Utility Description: Not reported  
Constype Utility Ind: Not reported  
Constype Water Sewer Ind: Not reported  
Dir Discharge Uswater Ind: N  
Receiving Water Name: Alameda Creek  
Certifier: Kevin Hare  
Certifier Title: Director of EHS  
Certification Date: 14-JUL-17  
Primary Sic: 2653-Corrugated and Solid Fiber Boxes  
Secondary Sic: Not reported  
Tertiary Sic: Not reported



Map ID  
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**AMCOR PACKAGING DISTRIBUTION DBA MANUFACTURED PACKAGING PROD (Continued)**

**1000182235**

**WDS:**

Facility ID: San Francisco Bay 011006301  
Facility Type: Not reported  
Facility Status: Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.  
NPDES Number: CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board  
Subregion: 2  
Facility Telephone: Not reported  
Facility Contact: Not reported  
Agency Name: MERCURY CONTAINER  
Agency Address: Not reported  
Agency City,St,Zip: 0  
Agency Contact: Not reported  
Agency Telephone: Not reported  
Agency Type: Not reported  
SIC Code: 0  
SIC Code 2: Not reported  
Primary Waste Type: Not reported  
Primary Waste: Not reported  
Waste Type2: Not reported  
Waste2: Not reported  
Primary Waste Type: Not reported  
Secondary Waste: Not reported  
Secondary Waste Type: Not reported  
Design Flow: 0  
Baseline Flow: 0  
Reclamation: Not reported  
POTW: Not reported  
Treat To Water: Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.  
Complexity: Category C - Facilities having no waste treatment systems, such as cooling water dischargers or those who must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

**CIWQS:**

Agency: MPP Union City  
Agency Address: 33463 Western Ave, Union City, CA 94587  
Place/Project Type: Industrial - Corrugated and Solid Fiber Boxes  
SIC/NAICS: 2653  
Region: 2  
Program: INDSTW  
Regulatory Measure Status: Active  
Regulatory Measure Type: Storm water industrial  
Order Number: 2014-0057-DWQ  
WDID: 2 011006301  
NPDES Number: CAS000001  
Adoption Date: Not reported  
Effective Date: 04/24/1992

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**AMCOR PACKAGING DISTRIBUTION DBA MANUFACTURED PACKAGING PROD (Continued)**

**1000182235**

Termination Date: Not reported  
 Expiration/Review Date: Not reported  
 Design Flow: Not reported  
 Major/Minor: Not reported  
 Complexity: Not reported  
 TTWQ: Not reported  
 Enforcement Actions within 5 years: 0  
 Violations within 5 years: 0  
 Latitude: 37.59465  
 Longitude: -122.03364

**CERS TANKS:**

Site ID: 480226  
 CERS ID: 110002430209  
 Site Name: MPP UNION CITY A DIVISION OF AMCOR PACKAGING DIST  
 CERS Description: US EPA Air Emission Inventory System (EIS)

Site ID: 482140  
 CERS ID: 259465  
 Site Name: MPP UNION CITY  
 CERS Description: Industrial Facility Storm Water

**Violations:**

Site ID: 482140  
 Site Name: MPP Union City  
 Violation Date: 07-02-1999  
 Citation: 2014-0057-DWQ - Industrial General Permit  
 Violation Description: SW - Deficient Report  
 Violation Notes: Non-submittal of Annual Report. Due 7//1/1999  
 Violation Division: Water Boards  
 Violation Program: INDSTW  
 Violation Source: SMARTS

**Affiliation:**

Affiliation Type Desc: Owner/Operator  
 Entity Name: MPP Union City  
 Entity Title: Operator  
 Affiliation Address: 33463 Western Ave  
 Affiliation City: Union City  
 Affiliation State: CA  
 Affiliation Country: Not reported  
 Affiliation Zip: 94587  
 Affiliation Phone: Not reported

**102  
 WNW  
 1/2-1  
 0.927 mi.  
 4894 ft.**

**STAR PAC INC  
 1205 ATLANTIC ST  
 UNION CITY, CA 94587**

**CPS-SLIC S100178885  
 NPDES N/A  
 Notify 65  
 CIWQS**

**Relative:  
 Lower  
 Actual:  
 61 ft.**

CPS-SLIC:  
 Site Name: DESOTO, INC. (FORMERLY PLEX CHEMICAL)  
 Region: STATE  
**Facility Status: Completed - Case Closed**  
 Status Date: 07/24/1991  
 Global Id: SL0600182507

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**STAR PAC INC (Continued)**

**S100178885**

Lead Agency: ALAMEDA COUNTY WATER DISTRICT  
Lead Agency Case Number: 0252  
Latitude: 37.6021138  
Longitude: -122.0324683  
Case Type: Cleanup Program Site  
Case Worker: Not reported  
Local Agency: Not reported  
RB Case Number: 01S0153  
File Location: Not reported  
Potential Media Affected: Not reported  
Potential Contaminants of Concern: Not reported  
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

**NPDES:**

Facility Status: Not reported  
NPDES Number: Not reported  
Region: Not reported  
Agency Number: Not reported  
Regulatory Measure ID: Not reported  
Place ID: Not reported  
Order Number: Not reported  
WDID: 2 011012234  
Regulatory Measure Type: Industrial  
Program Type: Not reported  
Adoption Date Of Regulatory Measure: Not reported  
Effective Date Of Regulatory Measure: Not reported  
Termination Date Of Regulatory Measure: Not reported  
Expiration Date Of Regulatory Measure: Not reported  
Discharge Address: Not reported  
Discharge Name: Not reported  
Discharge City: Not reported  
Discharge State: Not reported  
Discharge Zip: Not reported  
Status: Terminated  
Status Date: 02/06/2017  
Operator Name: Star Pacific Inc  
Operator Address: 1205 Atlantic St  
Operator City: Union City  
Operator State: California  
Operator Zip: 94587

**NPDES as of 03/2018:**

NPDES Number: CAS000001  
Status: Terminated  
Agency Number: 0  
Region: 2  
Regulatory Measure ID: 180969  
Order Number: 97-03-DWQ  
Regulatory Measure Type: Enrollee  
Place ID: Not reported  
WDID: 2 011012234  
Program Type: Industrial  
Adoption Date Of Regulatory Measure: Not reported  
Effective Date Of Regulatory Measure: 04/04/1996  
Expiration Date Of Regulatory Measure: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**STAR PAC INC (Continued)**

**S100178885**

Termination Date Of Regulatory Measure: 12/28/2016  
Discharge Name: Star Pacific Inc  
Discharge Address: 1205 Atlantic St  
Discharge City: Union City  
Discharge State: California  
Discharge Zip: 94587  
Received Date: Not reported  
Processed Date: Not reported  
Status: Not reported  
Status Date: Not reported  
Place Size: Not reported  
Place Size Unit: Not reported  
Contact: Not reported  
Contact Title: Not reported  
Contact Phone: Not reported  
Contact Phone Ext: Not reported  
Contact Email: Not reported  
Operator Name: Not reported  
Operator Address: Not reported  
Operator City: Not reported  
Operator State: Not reported  
Operator Zip: Not reported  
Operator Contact: Not reported  
Operator Contact Title: Not reported  
Operator Contact Phone: Not reported  
Operator Contact Phone Ext: Not reported  
Operator Contact Email: Not reported  
Operator Type: Not reported  
Developer: Not reported  
Developer Address: Not reported  
Developer City: Not reported  
Developer State: Not reported  
Developer Zip: Not reported  
Developer Contact: Not reported  
Developer Contact Title: Not reported  
Constype Linear Utility Ind: Not reported  
Emergency Phone: Not reported  
Emergency Phone Ext: Not reported  
Constype Above Ground Ind: Not reported  
Constype Below Ground Ind: Not reported  
Constype Cable Line Ind: Not reported  
Constype Comm Line Ind: Not reported  
Constype Commercial Ind: Not reported  
Constype Electrical Line Ind: Not reported  
Constype Gas Line Ind: Not reported  
Constype Industrial Ind: Not reported  
Constype Other Description: Not reported  
Constype Other Ind: Not reported  
Constype Recons Ind: Not reported  
Constype Residential Ind: Not reported  
Constype Transport Ind: Not reported  
Constype Utility Description: Not reported  
Constype Utility Ind: Not reported  
Constype Water Sewer Ind: Not reported  
Dir Discharge Uswater Ind: Not reported  
Receiving Water Name: Not reported  
Certifier: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**STAR PAC INC (Continued)**

**S100178885**

Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported
NPDES Number:	Not reported
Status:	Not reported
Agency Number:	Not reported
Region:	2
Regulatory Measure ID:	180969
Order Number:	Not reported
Regulatory Measure Type:	Industrial
Place ID:	Not reported
WDID:	2 011012234
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	12/28/2016
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Received Date:	05/09/2008
Processed Date:	04/04/1996
Status:	Terminated
Status Date:	02/06/2017
Place Size:	3.6
Place Size Unit:	Acres
Contact:	Ed Kubiak
Contact Title:	Not reported
Contact Phone:	510-471555-6
Contact Phone Ext:	Not reported
Contact Email:	starpacnew@aol.com
Operator Name:	Star Pacific Inc
Operator Address:	1205 Atlantic St
Operator City:	Union City
Operator State:	California
Operator Zip:	94587
Operator Contact:	Edward Kubiak
Operator Contact Title:	Not reported
Operator Contact Phone:	510-471-6555
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	starpacnew@aol.com
Operator Type:	Other
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	California
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	510-471-6555
Emergency Phone Ext:	Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**STAR PAC INC (Continued)**

**S100178885**

Constype Above Ground Ind: Not reported  
Constype Below Ground Ind: Not reported  
Constype Cable Line Ind: Not reported  
Constype Comm Line Ind: Not reported  
Constype Commercial Ind: Not reported  
Constype Electrical Line Ind: Not reported  
Constype Gas Line Ind: Not reported  
Constype Industrial Ind: Not reported  
Constype Other Description: Not reported  
Constype Other Ind: Not reported  
Constype Recons Ind: Not reported  
Constype Residential Ind: Not reported  
Constype Transport Ind: Not reported  
Constype Utility Description: Not reported  
Constype Utility Ind: Not reported  
Constype Water Sewer Ind: Not reported  
Dir Discharge Uswater Ind: N  
Receiving Water Name: Alameda Creek to San Francisco Bay  
Certifier: Edward Kubiak  
Certifier Title: General manager  
Certification Date: 15-JUN-15  
Primary Sic: 2841-Soaps and Other Detergents, Except Speciality Cleaners  
Secondary Sic: Not reported  
Tertiary Sic: Not reported

Facility Status: Terminated  
NPDES Number: CAS000001  
Region: 2  
Agency Number: 0  
Regulatory Measure ID: 180969  
Place ID: Not reported  
Order Number: 97-03-DWQ  
WDID: 2 011012234  
Regulatory Measure Type: Enrollee  
Program Type: Industrial  
Adoption Date Of Regulatory Measure: Not reported  
Effective Date Of Regulatory Measure: 04/04/1996  
Termination Date Of Regulatory Measure: 12/28/2016  
Expiration Date Of Regulatory Measure: Not reported  
Discharge Address: 1205 Atlantic St  
Discharge Name: Star Pacific Inc  
Discharge City: Union City  
Discharge State: California  
Discharge Zip: 94587  
Status: Not reported  
Status Date: Not reported  
Operator Name: Not reported  
Operator Address: Not reported  
Operator City: Not reported  
Operator State: Not reported  
Operator Zip: Not reported

NPDES as of 03/2018:

NPDES Number: CAS000001  
Status: Terminated  
Agency Number: 0  
Region: 2

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**STAR PAC INC (Continued)**

**S100178885**

Regulatory Measure ID: 180969  
Order Number: 97-03-DWQ  
Regulatory Measure Type: Enrollee  
Place ID: Not reported  
WDID: 2 011012234  
Program Type: Industrial  
Adoption Date Of Regulatory Measure: Not reported  
Effective Date Of Regulatory Measure: 04/04/1996  
Expiration Date Of Regulatory Measure: Not reported  
Termination Date Of Regulatory Measure: 12/28/2016  
Discharge Name: Star Pacific Inc  
Discharge Address: 1205 Atlantic St  
Discharge City: Union City  
Discharge State: California  
Discharge Zip: 94587  
Received Date: Not reported  
Processed Date: Not reported  
Status: Not reported  
Status Date: Not reported  
Place Size: Not reported  
Place Size Unit: Not reported  
Contact: Not reported  
Contact Title: Not reported  
Contact Phone: Not reported  
Contact Phone Ext: Not reported  
Contact Email: Not reported  
Operator Name: Not reported  
Operator Address: Not reported  
Operator City: Not reported  
Operator State: Not reported  
Operator Zip: Not reported  
Operator Contact: Not reported  
Operator Contact Title: Not reported  
Operator Contact Phone: Not reported  
Operator Contact Phone Ext: Not reported  
Operator Contact Email: Not reported  
Operator Type: Not reported  
Developer: Not reported  
Developer Address: Not reported  
Developer City: Not reported  
Developer State: Not reported  
Developer Zip: Not reported  
Developer Contact: Not reported  
Developer Contact Title: Not reported  
Constype Linear Utility Ind: Not reported  
Emergency Phone: Not reported  
Emergency Phone Ext: Not reported  
Constype Above Ground Ind: Not reported  
Constype Below Ground Ind: Not reported  
Constype Cable Line Ind: Not reported  
Constype Comm Line Ind: Not reported  
Constype Commercial Ind: Not reported  
Constype Electrical Line Ind: Not reported  
Constype Gas Line Ind: Not reported  
Constype Industrial Ind: Not reported  
Constype Other Description: Not reported  
Constype Other Ind: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**STAR PAC INC (Continued)**

**S100178885**

Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	Not reported
Receiving Water Name:	Not reported
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported
NPDES Number:	Not reported
Status:	Not reported
Agency Number:	Not reported
Region:	2
Regulatory Measure ID:	180969
Order Number:	Not reported
Regulatory Measure Type:	Industrial
Place ID:	Not reported
WDID:	2 011012234
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	12/28/2016
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Received Date:	05/09/2008
Processed Date:	04/04/1996
Status:	Terminated
Status Date:	02/06/2017
Place Size:	3.6
Place Size Unit:	Acres
Contact:	Ed Kubiak
Contact Title:	Not reported
Contact Phone:	510-471555-6
Contact Phone Ext:	Not reported
Contact Email:	starpacnew@aol.com
Operator Name:	Star Pacific Inc
Operator Address:	1205 Atlantic St
Operator City:	Union City
Operator State:	California
Operator Zip:	94587
Operator Contact:	Edward Kubiak
Operator Contact Title:	Not reported
Operator Contact Phone:	510-471-6555
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	starpacnew@aol.com
Operator Type:	Other
Developer:	Not reported



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**STAR PAC INC (Continued)**

**S100178885**

Developer Address:	Not reported
Developer City:	Not reported
Developer State:	California
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	510-471-6555
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commercial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	N
Receiving Water Name:	Alameda Creek to San Francisco Bay
Certifier:	Edward Kubiak
Certifier Title:	General manager
Certification Date:	15-JUN-15
Primary Sic:	2841-Soaps and Other Detergents, Except Speciality Cleaners
Secondary Sic:	Not reported
Tertiary Sic:	Not reported

**NOTIFY 65:**

Date Reported:	Not reported
Staff Initials:	Not reported
Board File Number:	Not reported
Facility Type:	Not reported
Discharge Date:	Not reported
Issue Date:	Not reported
Incident Description:	Not reported

**CIWQS:**

Agency:	Star Pacific Inc
Agency Address:	1205 Atlantic St, Union City, CA 94587
Place/Project Type:	Industrial - Soaps and Other Detergents, Except Speciality Cleaners
SIC/NAICS:	2841
Region:	2
Program:	INDSTW
Regulatory Measure Status:	Terminated
Regulatory Measure Type:	Storm water industrial
Order Number:	2014-0057-DWQ
WDID:	2 01I012234
NPDES Number:	CAS000001

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**STAR PAC INC (Continued)**

**S100178885**

Adoption Date:	Not reported
Effective Date:	04/04/1996
Termination Date:	12/28/2016
Expiration/Review Date:	Not reported
Design Flow:	Not reported
Major/Minor:	Not reported
Complexity:	Not reported
TTWQ:	Not reported
Enforcement Actions within 5 years:	0
Violations within 5 years:	0
Latitude:	37.60214
Longitude:	-122.0337

Count: 3 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
UNION CITY	1024797637	CITY OF UNION CITY	34650 7TH ST	94587	RCRA NonGen / NLR
UNION CITY	1024660355	CITY OF UNION CITY	34650 7TH ST	94587	FINDS, ECHO
UNION CITY	S106235235	CATELLUS DECOTO PROPERTIES	MISSION BLVD @ DECOTO RD		CPS-SLIC

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

**Number of Days to Update:** Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

## **STANDARD ENVIRONMENTAL RECORDS**

### ***Federal NPL site list***

#### **NPL: National Priority List**

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/11/2019	Source: EPA
Date Data Arrived at EDR: 04/18/2019	Telephone: N/A
Date Made Active in Reports: 05/14/2019	Last EDR Contact: 04/18/2019
Number of Days to Update: 26	Next Scheduled EDR Contact: 07/15/2019
	Data Release Frequency: Quarterly

#### **NPL Site Boundaries**

##### **Sources:**

EPA's Environmental Photographic Interpretation Center (EPIC)  
Telephone: 202-564-7333

EPA Region 1  
Telephone 617-918-1143

EPA Region 6  
Telephone: 214-655-6659

EPA Region 3  
Telephone 215-814-5418

EPA Region 7  
Telephone: 913-551-7247

EPA Region 4  
Telephone 404-562-8033

EPA Region 8  
Telephone: 303-312-6774

EPA Region 5  
Telephone 312-886-6686

EPA Region 9  
Telephone: 415-947-4246

EPA Region 10  
Telephone 206-553-8665

#### **Proposed NPL: Proposed National Priority List Sites**

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 04/11/2019	Source: EPA
Date Data Arrived at EDR: 04/18/2019	Telephone: N/A
Date Made Active in Reports: 05/14/2019	Last EDR Contact: 04/18/2019
Number of Days to Update: 26	Next Scheduled EDR Contact: 07/15/2019
	Data Release Frequency: Quarterly

#### **NPL LIENS: Federal Superfund Liens**

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/15/1991  
Date Data Arrived at EDR: 02/02/1994  
Date Made Active in Reports: 03/30/1994  
Number of Days to Update: 56

Source: EPA  
Telephone: 202-564-4267  
Last EDR Contact: 08/15/2011  
Next Scheduled EDR Contact: 11/28/2011  
Data Release Frequency: No Update Planned

## ***Federal Delisted NPL site list***

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/11/2019  
Date Data Arrived at EDR: 04/18/2019  
Date Made Active in Reports: 05/14/2019  
Number of Days to Update: 26

Source: EPA  
Telephone: N/A  
Last EDR Contact: 04/18/2019  
Next Scheduled EDR Contact: 07/15/2019  
Data Release Frequency: Quarterly

## ***Federal CERCLIS list***

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 04/03/2019  
Date Data Arrived at EDR: 04/05/2019  
Date Made Active in Reports: 05/14/2019  
Number of Days to Update: 39

Source: Environmental Protection Agency  
Telephone: 703-603-8704  
Last EDR Contact: 04/05/2019  
Next Scheduled EDR Contact: 07/15/2019  
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly known as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 03/11/2019  
Date Data Arrived at EDR: 03/14/2019  
Date Made Active in Reports: 04/17/2019  
Number of Days to Update: 34

Source: EPA  
Telephone: 800-424-9346  
Last EDR Contact: 04/18/2019  
Next Scheduled EDR Contact: 07/29/2019  
Data Release Frequency: Quarterly

## ***Federal CERCLIS NFRAP site list***

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 03/11/2019	Source: EPA
Date Data Arrived at EDR: 03/14/2019	Telephone: 800-424-9346
Date Made Active in Reports: 04/17/2019	Last EDR Contact: 04/18/2019
Number of Days to Update: 34	Next Scheduled EDR Contact: 07/29/2019
	Data Release Frequency: Quarterly

## ***Federal RCRA CORRACTS facilities list***

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/25/2019	Source: EPA
Date Data Arrived at EDR: 03/27/2019	Telephone: 800-424-9346
Date Made Active in Reports: 04/17/2019	Last EDR Contact: 03/27/2019
Number of Days to Update: 21	Next Scheduled EDR Contact: 07/08/2019
	Data Release Frequency: Quarterly

## ***Federal RCRA non-CORRACTS TSD facilities list***

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/25/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/27/2019	Telephone: (415) 495-8895
Date Made Active in Reports: 04/17/2019	Last EDR Contact: 03/27/2019
Number of Days to Update: 21	Next Scheduled EDR Contact: 07/08/2019
	Data Release Frequency: Quarterly

## ***Federal RCRA generators list***

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/25/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/27/2019	Telephone: (415) 495-8895
Date Made Active in Reports: 04/17/2019	Last EDR Contact: 03/27/2019
Number of Days to Update: 21	Next Scheduled EDR Contact: 07/08/2019
	Data Release Frequency: Quarterly

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/25/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/27/2019	Telephone: (415) 495-8895
Date Made Active in Reports: 04/17/2019	Last EDR Contact: 03/27/2019
Number of Days to Update: 21	Next Scheduled EDR Contact: 07/08/2019
	Data Release Frequency: Quarterly

## RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/25/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/27/2019	Telephone: (415) 495-8895
Date Made Active in Reports: 04/17/2019	Last EDR Contact: 03/27/2019
Number of Days to Update: 21	Next Scheduled EDR Contact: 07/08/2019
	Data Release Frequency: Quarterly

## ***Federal institutional controls / engineering controls registries***

### LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 02/22/2019	Source: Department of the Navy
Date Data Arrived at EDR: 03/07/2019	Telephone: 843-820-7326
Date Made Active in Reports: 04/17/2019	Last EDR Contact: 05/10/2019
Number of Days to Update: 41	Next Scheduled EDR Contact: 08/26/2019
	Data Release Frequency: Varies

### US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 01/31/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/04/2019	Telephone: 703-603-0695
Date Made Active in Reports: 03/08/2019	Last EDR Contact: 02/04/2019
Number of Days to Update: 32	Next Scheduled EDR Contact: 06/10/2019
	Data Release Frequency: Varies

### US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 01/31/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/04/2019	Telephone: 703-603-0695
Date Made Active in Reports: 03/08/2019	Last EDR Contact: 02/04/2019
Number of Days to Update: 32	Next Scheduled EDR Contact: 06/10/2019
	Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## ***Federal ERNS list***

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 03/25/2019

Date Data Arrived at EDR: 03/26/2019

Date Made Active in Reports: 05/01/2019

Number of Days to Update: 36

Source: National Response Center, United States Coast Guard

Telephone: 202-267-2180

Last EDR Contact: 03/26/2019

Next Scheduled EDR Contact: 07/08/2019

Data Release Frequency: Quarterly

## ***State- and tribal - equivalent NPL***

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 01/28/2019

Date Data Arrived at EDR: 01/29/2019

Date Made Active in Reports: 03/05/2019

Number of Days to Update: 35

Source: Department of Toxic Substances Control

Telephone: 916-323-3400

Last EDR Contact: 04/30/2019

Next Scheduled EDR Contact: 08/12/2019

Data Release Frequency: Quarterly

## ***State- and tribal - equivalent CERCLIS***

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 01/28/2019

Date Data Arrived at EDR: 01/29/2019

Date Made Active in Reports: 03/05/2019

Number of Days to Update: 35

Source: Department of Toxic Substances Control

Telephone: 916-323-3400

Last EDR Contact: 04/30/2019

Next Scheduled EDR Contact: 08/12/2019

Data Release Frequency: Quarterly

## ***State and tribal landfill and/or solid waste disposal site lists***

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inventory of solid waste disposal facilities or landfills. These may be active or inactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 02/11/2019

Date Data Arrived at EDR: 02/12/2019

Date Made Active in Reports: 03/05/2019

Number of Days to Update: 21

Source: Department of Resources Recycling and Recovery

Telephone: 916-341-6320

Last EDR Contact: 05/14/2019

Next Scheduled EDR Contact: 08/26/2019

Data Release Frequency: Quarterly

## ***State and tribal leaking storage tank lists***



# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008	Source: California Regional Water Quality Control Board Central Valley Region (5)
Date Data Arrived at EDR: 07/22/2008	Telephone: 916-464-4834
Date Made Active in Reports: 07/31/2008	Last EDR Contact: 07/01/2011
Number of Days to Update: 9	Next Scheduled EDR Contact: 10/17/2011
	Data Release Frequency: No Update Planned

## LUST: Leaking Underground Fuel Tank Report (GEOTRACKER)

Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/10/2018	Source: State Water Resources Control Board
Date Data Arrived at EDR: 12/11/2018	Telephone: see region list
Date Made Active in Reports: 01/15/2019	Last EDR Contact: 12/11/2018
Number of Days to Update: 35	Next Scheduled EDR Contact: 03/25/2019
	Data Release Frequency: Quarterly

## LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001	Source: California Regional Water Quality Control Board San Diego Region (9)
Date Data Arrived at EDR: 04/23/2001	Telephone: 858-637-5595
Date Made Active in Reports: 05/21/2001	Last EDR Contact: 09/26/2011
Number of Days to Update: 28	Next Scheduled EDR Contact: 01/09/2012
	Data Release Frequency: No Update Planned

## LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005	Source: California Regional Water Quality Control Board Santa Ana Region (8)
Date Data Arrived at EDR: 02/15/2005	Telephone: 909-782-4496
Date Made Active in Reports: 03/28/2005	Last EDR Contact: 08/15/2011
Number of Days to Update: 41	Next Scheduled EDR Contact: 11/28/2011
	Data Release Frequency: Varies

## LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004	Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Date Data Arrived at EDR: 02/26/2004	Telephone: 760-776-8943
Date Made Active in Reports: 03/24/2004	Last EDR Contact: 08/01/2011
Number of Days to Update: 27	Next Scheduled EDR Contact: 11/14/2011
	Data Release Frequency: No Update Planned

## LUST REG 6V: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005	Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Date Data Arrived at EDR: 06/07/2005	Telephone: 760-241-7365
Date Made Active in Reports: 06/29/2005	Last EDR Contact: 09/12/2011
Number of Days to Update: 22	Next Scheduled EDR Contact: 12/26/2011
	Data Release Frequency: No Update Planned

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## LUST REG 6L: Leaking Underground Storage Tank Case Listing

For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003	Source: California Regional Water Quality Control Board Lahontan Region (6)
Date Data Arrived at EDR: 09/10/2003	Telephone: 530-542-5572
Date Made Active in Reports: 10/07/2003	Last EDR Contact: 09/12/2011
Number of Days to Update: 27	Next Scheduled EDR Contact: 12/26/2011
	Data Release Frequency: No Update Planned

## LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004	Source: California Regional Water Quality Control Board Los Angeles Region (4)
Date Data Arrived at EDR: 09/07/2004	Telephone: 213-576-6710
Date Made Active in Reports: 10/12/2004	Last EDR Contact: 09/06/2011
Number of Days to Update: 35	Next Scheduled EDR Contact: 12/19/2011
	Data Release Frequency: No Update Planned

## LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003	Source: California Regional Water Quality Control Board Central Coast Region (3)
Date Data Arrived at EDR: 05/19/2003	Telephone: 805-542-4786
Date Made Active in Reports: 06/02/2003	Last EDR Contact: 07/18/2011
Number of Days to Update: 14	Next Scheduled EDR Contact: 10/31/2011
	Data Release Frequency: No Update Planned

## LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004	Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Date Data Arrived at EDR: 10/20/2004	Telephone: 510-622-2433
Date Made Active in Reports: 11/19/2004	Last EDR Contact: 09/19/2011
Number of Days to Update: 30	Next Scheduled EDR Contact: 01/02/2012
	Data Release Frequency: Quarterly

## LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001	Source: California Regional Water Quality Control Board North Coast (1)
Date Data Arrived at EDR: 02/28/2001	Telephone: 707-570-3769
Date Made Active in Reports: 03/29/2001	Last EDR Contact: 08/01/2011
Number of Days to Update: 29	Next Scheduled EDR Contact: 11/14/2011
	Data Release Frequency: No Update Planned

## INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 02/19/2019	Source: EPA Region 7
Date Data Arrived at EDR: 03/07/2019	Telephone: 913-551-7003
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 04/26/2019
Number of Days to Update: 55	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Varies

## INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/16/2018	Source: EPA Region 8
Date Data Arrived at EDR: 03/07/2019	Telephone: 303-312-6271
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 04/26/2019
Number of Days to Update: 55	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land  
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 10/10/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/08/2019	Telephone: 415-972-3372
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 04/26/2019
Number of Days to Update: 54	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land  
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 10/17/2018	Source: EPA Region 10
Date Data Arrived at EDR: 03/07/2019	Telephone: 206-553-2857
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 04/26/2019
Number of Days to Update: 55	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land  
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 10/12/2018	Source: EPA, Region 5
Date Data Arrived at EDR: 03/07/2019	Telephone: 312-886-7439
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 04/26/2019
Number of Days to Update: 55	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land  
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 09/24/2018	Source: EPA Region 4
Date Data Arrived at EDR: 03/12/2019	Telephone: 404-562-8677
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 04/26/2019
Number of Days to Update: 50	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land  
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 11/01/2018	Source: EPA Region 6
Date Data Arrived at EDR: 03/07/2019	Telephone: 214-665-6597
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 04/26/2019
Number of Days to Update: 55	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land  
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/13/2018	Source: EPA Region 1
Date Data Arrived at EDR: 03/07/2019	Telephone: 617-918-1313
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 04/26/2019
Number of Days to Update: 55	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## CPS-SLIC: Statewide SLIC Cases (GEOTRACKER)

Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/10/2018	Source: State Water Resources Control Board
Date Data Arrived at EDR: 12/11/2018	Telephone: 866-480-1028
Date Made Active in Reports: 01/15/2019	Last EDR Contact: 12/12/2018
Number of Days to Update: 35	Next Scheduled EDR Contact: 03/25/2019
	Data Release Frequency: Varies

## SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003	Source: California Regional Water Quality Control Board, North Coast Region (1)
Date Data Arrived at EDR: 04/07/2003	Telephone: 707-576-2220
Date Made Active in Reports: 04/25/2003	Last EDR Contact: 08/01/2011
Number of Days to Update: 18	Next Scheduled EDR Contact: 11/14/2011
	Data Release Frequency: No Update Planned

## SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004	Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Date Data Arrived at EDR: 10/20/2004	Telephone: 510-286-0457
Date Made Active in Reports: 11/19/2004	Last EDR Contact: 09/19/2011
Number of Days to Update: 30	Next Scheduled EDR Contact: 01/02/2012
	Data Release Frequency: Quarterly

## SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006	Source: California Regional Water Quality Control Board Central Coast Region (3)
Date Data Arrived at EDR: 05/18/2006	Telephone: 805-549-3147
Date Made Active in Reports: 06/15/2006	Last EDR Contact: 07/18/2011
Number of Days to Update: 28	Next Scheduled EDR Contact: 10/31/2011
	Data Release Frequency: Semi-Annually

## SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004	Source: Region Water Quality Control Board Los Angeles Region (4)
Date Data Arrived at EDR: 11/18/2004	Telephone: 213-576-6600
Date Made Active in Reports: 01/04/2005	Last EDR Contact: 07/01/2011
Number of Days to Update: 47	Next Scheduled EDR Contact: 10/17/2011
	Data Release Frequency: Varies

## SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005	Source: Regional Water Quality Control Board Central Valley Region (5)
Date Data Arrived at EDR: 04/05/2005	Telephone: 916-464-3291
Date Made Active in Reports: 04/21/2005	Last EDR Contact: 09/12/2011
Number of Days to Update: 16	Next Scheduled EDR Contact: 12/26/2011
	Data Release Frequency: Semi-Annually

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005  
Date Data Arrived at EDR: 05/25/2005  
Date Made Active in Reports: 06/16/2005  
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch  
Telephone: 619-241-6583  
Last EDR Contact: 08/15/2011  
Next Scheduled EDR Contact: 11/28/2011  
Data Release Frequency: Semi-Annually

## SLIC REG 6L: SLIC Sites

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004  
Date Data Arrived at EDR: 09/07/2004  
Date Made Active in Reports: 10/12/2004  
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region  
Telephone: 530-542-5574  
Last EDR Contact: 08/15/2011  
Next Scheduled EDR Contact: 11/28/2011  
Data Release Frequency: No Update Planned

## SLIC REG 7: SLIC List

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004  
Date Data Arrived at EDR: 11/29/2004  
Date Made Active in Reports: 01/04/2005  
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region  
Telephone: 760-346-7491  
Last EDR Contact: 08/01/2011  
Next Scheduled EDR Contact: 11/14/2011  
Data Release Frequency: No Update Planned

## SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008  
Date Data Arrived at EDR: 04/03/2008  
Date Made Active in Reports: 04/14/2008  
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)  
Telephone: 951-782-3298  
Last EDR Contact: 09/12/2011  
Next Scheduled EDR Contact: 12/26/2011  
Data Release Frequency: Semi-Annually

## SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007  
Date Data Arrived at EDR: 09/11/2007  
Date Made Active in Reports: 09/28/2007  
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)  
Telephone: 858-467-2980  
Last EDR Contact: 08/08/2011  
Next Scheduled EDR Contact: 11/21/2011  
Data Release Frequency: Annually

## ***State and tribal registered storage tank lists***

### FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 05/15/2017  
Date Data Arrived at EDR: 05/30/2017  
Date Made Active in Reports: 10/13/2017  
Number of Days to Update: 136

Source: FEMA  
Telephone: 202-646-5797  
Last EDR Contact: 04/25/2019  
Next Scheduled EDR Contact: 07/22/2019  
Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## UST: Active UST Facilities

Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 12/10/2018	Source: SWRCB
Date Data Arrived at EDR: 12/11/2018	Telephone: 916-341-5851
Date Made Active in Reports: 01/15/2019	Last EDR Contact: 12/11/2018
Number of Days to Update: 35	Next Scheduled EDR Contact: 03/25/2019
	Data Release Frequency: Semi-Annually

## UST CLOSURE: Proposed Closure of Underground Storage Tank (UST) Cases

UST cases that are being considered for closure by either the State Water Resources Control Board or the Executive Director have been posted for a 60-day public comment period. UST Case Closures being proposed for consideration by the State Water Resources Control Board. These are primarily UST cases that meet closure criteria under the decisional framework in State Water Board Resolution No. 92-49 and other Board orders. UST Case Closures proposed for consideration by the Executive Director pursuant to State Water Board Resolution No. 2012-0061. These are cases that meet the criteria of the Low-Threat UST Case Closure Policy. UST Case Closure Review Denials and Approved Orders.

Date of Government Version: 03/11/2019	Source: State Water Resources Control Board
Date Data Arrived at EDR: 03/13/2019	Telephone: 916-327-7844
Date Made Active in Reports: 04/03/2019	Last EDR Contact: 03/13/2019
Number of Days to Update: 21	Next Scheduled EDR Contact: 06/24/2019
	Data Release Frequency: Varies

## MILITARY UST SITES: Military UST Sites (GEOTRACKER)

Military ust sites

Date of Government Version: 12/10/2018	Source: State Water Resources Control Board
Date Data Arrived at EDR: 12/11/2018	Telephone: 866-480-1028
Date Made Active in Reports: 01/15/2019	Last EDR Contact: 12/12/2018
Number of Days to Update: 35	Next Scheduled EDR Contact: 03/25/2019
	Data Release Frequency: Varies

## AST: Aboveground Petroleum Storage Tank Facilities

A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016	Source: California Environmental Protection Agency
Date Data Arrived at EDR: 07/12/2016	Telephone: 916-327-5092
Date Made Active in Reports: 09/19/2016	Last EDR Contact: 03/18/2019
Number of Days to Update: 69	Next Scheduled EDR Contact: 07/01/2019
	Data Release Frequency: Quarterly

## INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 09/24/2018	Source: EPA Region 4
Date Data Arrived at EDR: 03/12/2019	Telephone: 404-562-9424
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 04/26/2019
Number of Days to Update: 50	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Varies

## INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 10/12/2018	Source: EPA Region 5
Date Data Arrived at EDR: 03/07/2019	Telephone: 312-886-6136
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 04/26/2019
Number of Days to Update: 55	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 10/17/2018	Source: EPA Region 10
Date Data Arrived at EDR: 03/07/2019	Telephone: 206-553-2857
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 04/26/2019
Number of Days to Update: 55	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Varies

## INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 11/07/2018	Source: EPA Region 7
Date Data Arrived at EDR: 03/07/2019	Telephone: 913-551-7003
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 04/26/2019
Number of Days to Update: 55	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Varies

## INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 10/16/2018	Source: EPA Region 8
Date Data Arrived at EDR: 03/07/2019	Telephone: 303-312-6137
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 04/26/2019
Number of Days to Update: 55	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Varies

## INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 10/10/2018	Source: EPA Region 9
Date Data Arrived at EDR: 03/08/2019	Telephone: 415-972-3368
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 04/26/2019
Number of Days to Update: 54	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Varies

## INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/03/2018	Source: EPA, Region 1
Date Data Arrived at EDR: 03/07/2019	Telephone: 617-918-1313
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 04/26/2019
Number of Days to Update: 55	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Varies

## INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 11/01/2018	Source: EPA Region 6
Date Data Arrived at EDR: 03/07/2019	Telephone: 214-665-7591
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 04/26/2019
Number of Days to Update: 55	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## ***State and tribal voluntary cleanup sites***

### INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008	Source: EPA, Region 7
Date Data Arrived at EDR: 04/22/2008	Telephone: 913-551-7365
Date Made Active in Reports: 05/19/2008	Last EDR Contact: 04/20/2009
Number of Days to Update: 27	Next Scheduled EDR Contact: 07/20/2009
	Data Release Frequency: Varies

### INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015	Source: EPA, Region 1
Date Data Arrived at EDR: 09/29/2015	Telephone: 617-918-1102
Date Made Active in Reports: 02/18/2016	Last EDR Contact: 03/25/2019
Number of Days to Update: 142	Next Scheduled EDR Contact: 07/08/2019
	Data Release Frequency: Varies

### VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 01/28/2019	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 01/29/2019	Telephone: 916-323-3400
Date Made Active in Reports: 03/05/2019	Last EDR Contact: 04/30/2019
Number of Days to Update: 35	Next Scheduled EDR Contact: 08/12/2019
	Data Release Frequency: Quarterly

## ***State and tribal Brownfields sites***

### BROWNFIELDS: Considered Brownfields Sites Listing

A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 03/25/2019	Source: State Water Resources Control Board
Date Data Arrived at EDR: 03/26/2019	Telephone: 916-323-7905
Date Made Active in Reports: 04/29/2019	Last EDR Contact: 03/26/2019
Number of Days to Update: 34	Next Scheduled EDR Contact: 07/08/2019
	Data Release Frequency: Quarterly

## **ADDITIONAL ENVIRONMENTAL RECORDS**

### ***Local Brownfield lists***

### US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 12/17/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/18/2018	Telephone: 202-566-2777
Date Made Active in Reports: 01/11/2019	Last EDR Contact: 03/19/2019
Number of Days to Update: 24	Next Scheduled EDR Contact: 07/01/2019
	Data Release Frequency: Semi-Annually



# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## **Local Lists of Landfill / Solid Waste Disposal Sites**

### **WMUDS/SWAT: Waste Management Unit Database**

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000	Source: State Water Resources Control Board
Date Data Arrived at EDR: 04/10/2000	Telephone: 916-227-4448
Date Made Active in Reports: 05/10/2000	Last EDR Contact: 04/25/2019
Number of Days to Update: 30	Next Scheduled EDR Contact: 08/12/2019
	Data Release Frequency: No Update Planned

### **SWRCY: Recycler Database**

A listing of recycling facilities in California.

Date of Government Version: 03/11/2019	Source: Department of Conservation
Date Data Arrived at EDR: 03/13/2019	Telephone: 916-323-3836
Date Made Active in Reports: 04/30/2019	Last EDR Contact: 03/13/2019
Number of Days to Update: 48	Next Scheduled EDR Contact: 06/24/2019
	Data Release Frequency: Quarterly

### **HAULERS: Registered Waste Tire Haulers Listing**

A listing of registered waste tire haulers.

Date of Government Version: 03/26/2019	Source: Integrated Waste Management Board
Date Data Arrived at EDR: 03/27/2019	Telephone: 916-341-6422
Date Made Active in Reports: 04/30/2019	Last EDR Contact: 05/09/2019
Number of Days to Update: 34	Next Scheduled EDR Contact: 08/26/2019
	Data Release Frequency: Varies

### **INDIAN ODI: Report on the Status of Open Dumps on Indian Lands**

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/03/2007	Telephone: 703-308-8245
Date Made Active in Reports: 01/24/2008	Last EDR Contact: 04/26/2019
Number of Days to Update: 52	Next Scheduled EDR Contact: 08/12/2019
	Data Release Frequency: Varies

### **DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations**

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009	Source: EPA, Region 9
Date Data Arrived at EDR: 05/07/2009	Telephone: 415-947-4219
Date Made Active in Reports: 09/21/2009	Last EDR Contact: 04/22/2019
Number of Days to Update: 137	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: No Update Planned

### **ODI: Open Dump Inventory**

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/09/2004	Telephone: 800-424-9346
Date Made Active in Reports: 09/17/2004	Last EDR Contact: 06/09/2004
Number of Days to Update: 39	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014	Source: Department of Health & Human Services, Indian Health Service
Date Data Arrived at EDR: 08/06/2014	Telephone: 301-443-1452
Date Made Active in Reports: 01/29/2015	Last EDR Contact: 04/23/2019
Number of Days to Update: 176	Next Scheduled EDR Contact: 08/12/2019
	Data Release Frequency: Varies

## Local Lists of Hazardous waste / Contaminated Sites

### US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 02/24/2019	Source: Drug Enforcement Administration
Date Data Arrived at EDR: 02/26/2019	Telephone: 202-307-1000
Date Made Active in Reports: 04/17/2019	Last EDR Contact: 02/21/2019
Number of Days to Update: 50	Next Scheduled EDR Contact: 06/10/2019
	Data Release Frequency: No Update Planned

### HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005	Source: Department of Toxic Substance Control
Date Data Arrived at EDR: 08/03/2006	Telephone: 916-323-3400
Date Made Active in Reports: 08/24/2006	Last EDR Contact: 02/23/2009
Number of Days to Update: 21	Next Scheduled EDR Contact: 05/25/2009
	Data Release Frequency: No Update Planned

### SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 01/28/2019	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 01/29/2019	Telephone: 916-323-3400
Date Made Active in Reports: 03/05/2019	Last EDR Contact: 04/30/2019
Number of Days to Update: 35	Next Scheduled EDR Contact: 08/12/2019
	Data Release Frequency: Quarterly

### CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2017	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 06/12/2018	Telephone: 916-255-6504
Date Made Active in Reports: 08/06/2018	Last EDR Contact: 05/02/2019
Number of Days to Update: 55	Next Scheduled EDR Contact: 07/22/2019
	Data Release Frequency: Varies

### TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995	Source: State Water Resources Control Board
Date Data Arrived at EDR: 08/30/1995	Telephone: 916-227-4364
Date Made Active in Reports: 09/26/1995	Last EDR Contact: 01/26/2009
Number of Days to Update: 27	Next Scheduled EDR Contact: 04/27/2009
	Data Release Frequency: No Update Planned

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## CERS HAZ WASTE: CERS HAZ WASTE

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

Date of Government Version: 04/09/2019	Source: CalEPA
Date Data Arrived at EDR: 04/11/2019	Telephone: 916-323-2514
Date Made Active in Reports: 05/08/2019	Last EDR Contact: 04/11/2019
Number of Days to Update: 27	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Quarterly

## US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 02/24/2019	Source: Drug Enforcement Administration
Date Data Arrived at EDR: 02/26/2019	Telephone: 202-307-1000
Date Made Active in Reports: 04/17/2019	Last EDR Contact: 02/21/2019
Number of Days to Update: 50	Next Scheduled EDR Contact: 06/10/2019
	Data Release Frequency: Quarterly

## PFAS: PFAS Contamination Site Location Listing

A listing of PFAS contaminated sites included in the GeoTracker database.

Date of Government Version: 02/21/2019	Source: State Water Resources Control Board
Date Data Arrived at EDR: 02/22/2019	Telephone: 866-480-1028
Date Made Active in Reports: 04/15/2019	Last EDR Contact: 05/16/2019
Number of Days to Update: 52	Next Scheduled EDR Contact: 06/24/2019
	Data Release Frequency: Varies

## **Local Lists of Registered Storage Tanks**

### SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994	Source: State Water Resources Control Board
Date Data Arrived at EDR: 07/07/2005	Telephone: N/A
Date Made Active in Reports: 08/11/2005	Last EDR Contact: 06/03/2005
Number of Days to Update: 35	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

### UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 12/04/2018	Source: Department of Public Health
Date Data Arrived at EDR: 12/06/2018	Telephone: 707-463-4466
Date Made Active in Reports: 12/14/2018	Last EDR Contact: 02/21/2019
Number of Days to Update: 8	Next Scheduled EDR Contact: 06/10/2019
	Data Release Frequency: Annually

### HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/15/1990  
Date Data Arrived at EDR: 01/25/1991  
Date Made Active in Reports: 02/12/1991  
Number of Days to Update: 18

Source: State Water Resources Control Board  
Telephone: 916-341-5851  
Last EDR Contact: 07/26/2001  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

## SAN FRANCISCO AST: Aboveground Storage Tank Site Listing

Aboveground storage tank sites

Date of Government Version: 09/11/2018  
Date Data Arrived at EDR: 09/12/2018  
Date Made Active in Reports: 10/11/2018  
Number of Days to Update: 29

Source: San Francisco County Department of Public Health  
Telephone: 415-252-3896  
Last EDR Contact: 05/02/2019  
Next Scheduled EDR Contact: 08/19/2019  
Data Release Frequency: Varies

## CERS TANKS: California Environmental Reporting System (CERS) Tanks

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

Date of Government Version: 04/09/2019  
Date Data Arrived at EDR: 04/11/2019  
Date Made Active in Reports: 05/08/2019  
Number of Days to Update: 27

Source: California Environmental Protection Agency  
Telephone: 916-323-2514  
Last EDR Contact: 04/11/2019  
Next Scheduled EDR Contact: 08/05/2019  
Data Release Frequency: Quarterly

## CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994  
Date Data Arrived at EDR: 09/05/1995  
Date Made Active in Reports: 09/29/1995  
Number of Days to Update: 24

Source: California Environmental Protection Agency  
Telephone: 916-341-5851  
Last EDR Contact: 12/28/1998  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

## Local Land Records

### LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 02/28/2019  
Date Data Arrived at EDR: 03/01/2019  
Date Made Active in Reports: 04/02/2019  
Number of Days to Update: 32

Source: Department of Toxic Substances Control  
Telephone: 916-323-3400  
Last EDR Contact: 02/27/2019  
Next Scheduled EDR Contact: 06/17/2019  
Data Release Frequency: Varies

### LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 03/11/2019  
Date Data Arrived at EDR: 03/14/2019  
Date Made Active in Reports: 03/21/2019  
Number of Days to Update: 7

Source: Environmental Protection Agency  
Telephone: 202-564-6023  
Last EDR Contact: 04/18/2019  
Next Scheduled EDR Contact: 08/05/2019  
Data Release Frequency: Semi-Annually

### DEED: Deed Restriction Listing

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 03/04/2019	Source: DTSC and SWRCB
Date Data Arrived at EDR: 03/05/2019	Telephone: 916-323-3400
Date Made Active in Reports: 04/01/2019	Last EDR Contact: 03/05/2019
Number of Days to Update: 27	Next Scheduled EDR Contact: 06/17/2019
	Data Release Frequency: Semi-Annually

## **Records of Emergency Release Reports**

### **HMIRS: Hazardous Materials Information Reporting System**

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 03/25/2019	Source: U.S. Department of Transportation
Date Data Arrived at EDR: 03/26/2019	Telephone: 202-366-4555
Date Made Active in Reports: 05/14/2019	Last EDR Contact: 03/26/2019
Number of Days to Update: 49	Next Scheduled EDR Contact: 07/08/2019
	Data Release Frequency: Quarterly

### **CHMIRS: California Hazardous Material Incident Report System**

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 10/24/2018	Source: Office of Emergency Services
Date Data Arrived at EDR: 01/24/2019	Telephone: 916-845-8400
Date Made Active in Reports: 03/05/2019	Last EDR Contact: 04/26/2019
Number of Days to Update: 40	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Semi-Annually

### **LDS: Land Disposal Sites Listing (GEOTRACKER)**

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/10/2018	Source: State Water Quality Control Board
Date Data Arrived at EDR: 12/11/2018	Telephone: 866-480-1028
Date Made Active in Reports: 01/15/2019	Last EDR Contact: 12/12/2018
Number of Days to Update: 35	Next Scheduled EDR Contact: 03/25/2019
	Data Release Frequency: Quarterly

### **MCS: Military Cleanup Sites Listing (GEOTRACKER)**

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/10/2018	Source: State Water Resources Control Board
Date Data Arrived at EDR: 12/11/2018	Telephone: 866-480-1028
Date Made Active in Reports: 01/15/2019	Last EDR Contact: 12/12/2018
Number of Days to Update: 35	Next Scheduled EDR Contact: 03/25/2019
	Data Release Frequency: Quarterly

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012	Source: FirstSearch
Date Data Arrived at EDR: 01/03/2013	Telephone: N/A
Date Made Active in Reports: 02/22/2013	Last EDR Contact: 01/03/2013
Number of Days to Update: 50	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

## Other Ascertainable Records

### RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/25/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/27/2019	Telephone: (415) 495-8895
Date Made Active in Reports: 04/17/2019	Last EDR Contact: 03/27/2019
Number of Days to Update: 21	Next Scheduled EDR Contact: 07/08/2019
	Data Release Frequency: Quarterly

### FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015	Source: U.S. Army Corps of Engineers
Date Data Arrived at EDR: 07/08/2015	Telephone: 202-528-4285
Date Made Active in Reports: 10/13/2015	Last EDR Contact: 05/21/2019
Number of Days to Update: 97	Next Scheduled EDR Contact: 09/02/2019
	Data Release Frequency: Varies

### DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005	Source: USGS
Date Data Arrived at EDR: 11/10/2006	Telephone: 888-275-8747
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 04/12/2019
Number of Days to Update: 62	Next Scheduled EDR Contact: 07/22/2019
	Data Release Frequency: Semi-Annually

### FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005	Source: U.S. Geological Survey
Date Data Arrived at EDR: 02/06/2006	Telephone: 888-275-8747
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 04/12/2019
Number of Days to Update: 339	Next Scheduled EDR Contact: 07/22/2019
	Data Release Frequency: N/A

### SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 01/01/2017  
Date Data Arrived at EDR: 02/03/2017  
Date Made Active in Reports: 04/07/2017  
Number of Days to Update: 63

Source: Environmental Protection Agency  
Telephone: 615-532-8599  
Last EDR Contact: 05/13/2019  
Next Scheduled EDR Contact: 08/26/2019  
Data Release Frequency: Varies

## US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 03/25/2019  
Date Data Arrived at EDR: 03/26/2019  
Date Made Active in Reports: 05/07/2019  
Number of Days to Update: 42

Source: Environmental Protection Agency  
Telephone: 202-566-1917  
Last EDR Contact: 03/26/2019  
Next Scheduled EDR Contact: 07/08/2019  
Data Release Frequency: Quarterly

## EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013  
Date Data Arrived at EDR: 03/21/2014  
Date Made Active in Reports: 06/17/2014  
Number of Days to Update: 88

Source: Environmental Protection Agency  
Telephone: 617-520-3000  
Last EDR Contact: 05/06/2019  
Next Scheduled EDR Contact: 08/19/2019  
Data Release Frequency: Quarterly

## 2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017  
Date Data Arrived at EDR: 05/08/2018  
Date Made Active in Reports: 07/20/2018  
Number of Days to Update: 73

Source: Environmental Protection Agency  
Telephone: 703-308-4044  
Last EDR Contact: 05/10/2019  
Next Scheduled EDR Contact: 08/19/2019  
Data Release Frequency: Varies

## TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016  
Date Data Arrived at EDR: 06/21/2017  
Date Made Active in Reports: 01/05/2018  
Number of Days to Update: 198

Source: EPA  
Telephone: 202-260-5521  
Last EDR Contact: 03/22/2019  
Next Scheduled EDR Contact: 07/01/2019  
Data Release Frequency: Every 4 Years

## TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2016  
Date Data Arrived at EDR: 01/10/2018  
Date Made Active in Reports: 01/12/2018  
Number of Days to Update: 2

Source: EPA  
Telephone: 202-566-0250  
Last EDR Contact: 02/20/2019  
Next Scheduled EDR Contact: 06/03/2019  
Data Release Frequency: Annually

## SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009  
Date Data Arrived at EDR: 12/10/2010  
Date Made Active in Reports: 02/25/2011  
Number of Days to Update: 77

Source: EPA  
Telephone: 202-564-4203  
Last EDR Contact: 04/24/2019  
Next Scheduled EDR Contact: 08/05/2019  
Data Release Frequency: Annually

## ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 03/11/2019  
Date Data Arrived at EDR: 03/14/2019  
Date Made Active in Reports: 04/01/2019  
Number of Days to Update: 18

Source: EPA  
Telephone: 703-416-0223  
Last EDR Contact: 04/18/2019  
Next Scheduled EDR Contact: 06/17/2019  
Data Release Frequency: Annually

## RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 02/01/2019  
Date Data Arrived at EDR: 02/14/2019  
Date Made Active in Reports: 03/21/2019  
Number of Days to Update: 35

Source: Environmental Protection Agency  
Telephone: 202-564-8600  
Last EDR Contact: 04/22/2019  
Next Scheduled EDR Contact: 08/05/2019  
Data Release Frequency: Varies

## RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995  
Date Data Arrived at EDR: 07/03/1995  
Date Made Active in Reports: 08/07/1995  
Number of Days to Update: 35

Source: EPA  
Telephone: 202-564-4104  
Last EDR Contact: 06/02/2008  
Next Scheduled EDR Contact: 09/01/2008  
Data Release Frequency: No Update Planned



# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 03/11/2019	Source: EPA
Date Data Arrived at EDR: 03/14/2019	Telephone: 202-564-6023
Date Made Active in Reports: 04/17/2019	Last EDR Contact: 05/10/2019
Number of Days to Update: 34	Next Scheduled EDR Contact: 08/19/2019
	Data Release Frequency: Quarterly

## PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 03/20/2019	Source: EPA
Date Data Arrived at EDR: 04/10/2019	Telephone: 202-566-0500
Date Made Active in Reports: 05/14/2019	Last EDR Contact: 04/10/2019
Number of Days to Update: 34	Next Scheduled EDR Contact: 07/22/2019
	Data Release Frequency: Annually

## ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/23/2016	Telephone: 202-564-2501
Date Made Active in Reports: 02/10/2017	Last EDR Contact: 04/08/2019
Number of Days to Update: 79	Next Scheduled EDR Contact: 07/22/2019
	Data Release Frequency: Quarterly

## FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: Quarterly

## FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009	Source: EPA
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: Quarterly

## MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/30/2016	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 09/08/2016	Telephone: 301-415-7169
Date Made Active in Reports: 10/21/2016	Last EDR Contact: 04/22/2019
Number of Days to Update: 43	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Quarterly

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005	Source: Department of Energy
Date Data Arrived at EDR: 08/07/2009	Telephone: 202-586-8719
Date Made Active in Reports: 10/22/2009	Last EDR Contact: 03/07/2019
Number of Days to Update: 76	Next Scheduled EDR Contact: 06/17/2019
	Data Release Frequency: Varies

## COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/10/2014	Telephone: N/A
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 03/05/2019
Number of Days to Update: 40	Next Scheduled EDR Contact: 06/17/2019
	Data Release Frequency: Varies

## PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 05/24/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/30/2017	Telephone: 202-566-0517
Date Made Active in Reports: 12/15/2017	Last EDR Contact: 04/26/2019
Number of Days to Update: 15	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Varies

## RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 04/02/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 04/02/2019	Telephone: 202-343-9775
Date Made Active in Reports: 05/14/2019	Last EDR Contact: 04/02/2019
Number of Days to Update: 42	Next Scheduled EDR Contact: 07/15/2019
	Data Release Frequency: Quarterly

## HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 12/17/2007
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/17/2008
	Data Release Frequency: No Update Planned

## HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/19/2006  
Date Data Arrived at EDR: 03/01/2007  
Date Made Active in Reports: 04/10/2007  
Number of Days to Update: 40

Source: Environmental Protection Agency  
Telephone: 202-564-2501  
Last EDR Contact: 12/17/2008  
Next Scheduled EDR Contact: 03/17/2008  
Data Release Frequency: No Update Planned

## DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 12/03/2018  
Date Data Arrived at EDR: 01/29/2019  
Date Made Active in Reports: 03/21/2019  
Number of Days to Update: 51

Source: Department of Transportation, Office of Pipeline Safety  
Telephone: 202-366-4595  
Last EDR Contact: 04/30/2019  
Next Scheduled EDR Contact: 08/12/2019  
Data Release Frequency: Quarterly

## CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2018  
Date Data Arrived at EDR: 02/11/2019  
Date Made Active in Reports: 03/21/2019  
Number of Days to Update: 38

Source: Department of Justice, Consent Decree Library  
Telephone: Varies  
Last EDR Contact: 04/05/2019  
Next Scheduled EDR Contact: 07/22/2019  
Data Release Frequency: Varies

## BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015  
Date Data Arrived at EDR: 02/22/2017  
Date Made Active in Reports: 09/28/2017  
Number of Days to Update: 218

Source: EPA/NTIS  
Telephone: 800-424-9346  
Last EDR Contact: 02/13/2019  
Next Scheduled EDR Contact: 06/03/2019  
Data Release Frequency: Biennially

## INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014  
Date Data Arrived at EDR: 07/14/2015  
Date Made Active in Reports: 01/10/2017  
Number of Days to Update: 546

Source: USGS  
Telephone: 202-208-3710  
Last EDR Contact: 04/11/2019  
Next Scheduled EDR Contact: 07/22/2019  
Data Release Frequency: Semi-Annually

## FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017  
Date Data Arrived at EDR: 09/11/2018  
Date Made Active in Reports: 09/14/2018  
Number of Days to Update: 3

Source: Department of Energy  
Telephone: 202-586-3559  
Last EDR Contact: 05/02/2019  
Next Scheduled EDR Contact: 08/19/2019  
Data Release Frequency: Varies

## UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 06/23/2017  
Date Data Arrived at EDR: 10/11/2017  
Date Made Active in Reports: 11/03/2017  
Number of Days to Update: 23

Source: Department of Energy  
Telephone: 505-845-0011  
Last EDR Contact: 02/22/2019  
Next Scheduled EDR Contact: 06/03/2019  
Data Release Frequency: Varies

## LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 04/11/2019  
Date Data Arrived at EDR: 04/18/2019  
Date Made Active in Reports: 05/14/2019  
Number of Days to Update: 26

Source: Environmental Protection Agency  
Telephone: 703-603-8787  
Last EDR Contact: 04/18/2019  
Next Scheduled EDR Contact: 07/15/2019  
Data Release Frequency: Varies

## LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001  
Date Data Arrived at EDR: 10/27/2010  
Date Made Active in Reports: 12/02/2010  
Number of Days to Update: 36

Source: American Journal of Public Health  
Telephone: 703-305-6451  
Last EDR Contact: 12/02/2009  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

## US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016  
Date Data Arrived at EDR: 10/26/2016  
Date Made Active in Reports: 02/03/2017  
Number of Days to Update: 100

Source: EPA  
Telephone: 202-564-2496  
Last EDR Contact: 09/26/2017  
Next Scheduled EDR Contact: 01/08/2018  
Data Release Frequency: Annually

## US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016  
Date Data Arrived at EDR: 10/26/2016  
Date Made Active in Reports: 02/03/2017  
Number of Days to Update: 100

Source: EPA  
Telephone: 202-564-2496  
Last EDR Contact: 09/26/2017  
Next Scheduled EDR Contact: 01/08/2018  
Data Release Frequency: Annually

## US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 11/27/2018  
Date Data Arrived at EDR: 02/27/2019  
Date Made Active in Reports: 04/01/2019  
Number of Days to Update: 33

Source: Department of Labor, Mine Safety and Health Administration  
Telephone: 303-231-5959  
Last EDR Contact: 02/27/2019  
Next Scheduled EDR Contact: 06/10/2019  
Data Release Frequency: Semi-Annually

## US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/05/2005	Source: USGS
Date Data Arrived at EDR: 02/29/2008	Telephone: 703-648-7709
Date Made Active in Reports: 04/18/2008	Last EDR Contact: 03/01/2019
Number of Days to Update: 49	Next Scheduled EDR Contact: 06/10/2019
	Data Release Frequency: Varies

## US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011	Source: USGS
Date Data Arrived at EDR: 06/08/2011	Telephone: 703-648-7709
Date Made Active in Reports: 09/13/2011	Last EDR Contact: 03/01/2019
Number of Days to Update: 97	Next Scheduled EDR Contact: 06/10/2019
	Data Release Frequency: Varies

## ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 03/27/2019	Source: Department of Interior
Date Data Arrived at EDR: 03/28/2019	Telephone: 202-208-2609
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 03/21/2019
Number of Days to Update: 34	Next Scheduled EDR Contact: 06/24/2019
	Data Release Frequency: Quarterly

## FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 02/15/2019	Source: EPA
Date Data Arrived at EDR: 03/05/2019	Telephone: (415) 947-8000
Date Made Active in Reports: 03/15/2019	Last EDR Contact: 03/05/2019
Number of Days to Update: 10	Next Scheduled EDR Contact: 06/17/2019
	Data Release Frequency: Quarterly

## ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 03/03/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/05/2019	Telephone: 202-564-2280
Date Made Active in Reports: 04/01/2019	Last EDR Contact: 04/09/2019
Number of Days to Update: 27	Next Scheduled EDR Contact: 07/22/2019
	Data Release Frequency: Quarterly

## DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/31/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/26/2018	Telephone: 202-564-0527
Date Made Active in Reports: 10/05/2018	Last EDR Contact: 03/01/2019
Number of Days to Update: 71	Next Scheduled EDR Contact: 06/10/2019
	Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2017	Source: Department of Defense
Date Data Arrived at EDR: 01/17/2019	Telephone: 703-704-1564
Date Made Active in Reports: 04/01/2019	Last EDR Contact: 04/15/2019
Number of Days to Update: 74	Next Scheduled EDR Contact: 07/29/2019
	Data Release Frequency: Varies

## FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 02/19/2019	Source: EPA
Date Data Arrived at EDR: 02/21/2019	Telephone: 800-385-6164
Date Made Active in Reports: 04/01/2019	Last EDR Contact: 05/21/2019
Number of Days to Update: 39	Next Scheduled EDR Contact: 09/02/2019
	Data Release Frequency: Quarterly

## CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989	Source: Department of Health Services
Date Data Arrived at EDR: 07/27/1994	Telephone: 916-255-2118
Date Made Active in Reports: 08/02/1994	Last EDR Contact: 05/31/1994
Number of Days to Update: 6	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

## CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 03/25/2019	Source: CAL EPA/Office of Emergency Information
Date Data Arrived at EDR: 03/26/2019	Telephone: 916-323-3400
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 03/26/2019
Number of Days to Update: 36	Next Scheduled EDR Contact: 07/08/2019
	Data Release Frequency: Quarterly

## CUPA SAN FRANCISCO CO: CUPA Facility Listing

Cupa facilities

Date of Government Version: 04/18/2019	Source: San Francisco County Department of Environmental Health
Date Data Arrived at EDR: 04/19/2019	Telephone: 415-252-3896
Date Made Active in Reports: 04/30/2019	Last EDR Contact: 04/18/2019
Number of Days to Update: 11	Next Scheduled EDR Contact: 08/19/2019
	Data Release Frequency: Varies

## CUPA LIVERMORE-PLEASANTON: CUPA Facility Listing

list of facilities associated with the various CUPA programs in Livermore-Pleasanton

Date of Government Version: 01/23/2019	Source: Livermore-Pleasanton Fire Department
Date Data Arrived at EDR: 02/26/2019	Telephone: 925-454-2361
Date Made Active in Reports: 04/01/2019	Last EDR Contact: 05/14/2019
Number of Days to Update: 34	Next Scheduled EDR Contact: 08/26/2019
	Data Release Frequency: Varies

## DRYCLEAN AVAQMD: Antelope Valley Air Quality Management District Drycleaner Listing

A listing of dry cleaners in the Antelope Valley Air Quality Management District.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 02/27/2019  
Date Data Arrived at EDR: 02/28/2019  
Date Made Active in Reports: 04/01/2019  
Number of Days to Update: 32

Source: Antelope Valley Air Quality Management District  
Telephone: 661-723-8070  
Last EDR Contact: 02/27/2019  
Next Scheduled EDR Contact: 06/17/2019  
Data Release Frequency: Varies

## DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 12/13/2018  
Date Data Arrived at EDR: 01/17/2019  
Date Made Active in Reports: 03/05/2019  
Number of Days to Update: 47

Source: Department of Toxic Substance Control  
Telephone: 916-327-4498  
Last EDR Contact: 02/27/2019  
Next Scheduled EDR Contact: 06/17/2019  
Data Release Frequency: Annually

## DRYCLEAN SOUTH COAST: South Coast Air Quality Management District Drycleaner Listing

A listing of dry cleaners in the South Coast Air Quality Management District

Date of Government Version: 03/19/2019  
Date Data Arrived at EDR: 03/22/2019  
Date Made Active in Reports: 04/09/2019  
Number of Days to Update: 18

Source: South Coast Air Quality Management District  
Telephone: 909-396-3211  
Last EDR Contact: 03/22/2019  
Next Scheduled EDR Contact: 06/10/2019  
Data Release Frequency: Varies

## EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2017  
Date Data Arrived at EDR: 06/20/2018  
Date Made Active in Reports: 08/06/2018  
Number of Days to Update: 47

Source: California Air Resources Board  
Telephone: 916-322-2990  
Last EDR Contact: 03/22/2019  
Next Scheduled EDR Contact: 07/01/2019  
Data Release Frequency: Varies

## ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 11/01/2018  
Date Data Arrived at EDR: 11/02/2018  
Date Made Active in Reports: 12/13/2018  
Number of Days to Update: 41

Source: State Water Resources Control Board  
Telephone: 916-445-9379  
Last EDR Contact: 05/14/2019  
Next Scheduled EDR Contact: 08/26/2019  
Data Release Frequency: Varies

## Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 01/10/2019  
Date Data Arrived at EDR: 01/23/2019  
Date Made Active in Reports: 03/05/2019  
Number of Days to Update: 41

Source: Department of Toxic Substances Control  
Telephone: 916-255-3628  
Last EDR Contact: 04/22/2019  
Next Scheduled EDR Contact: 08/05/2019  
Data Release Frequency: Varies

## Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 02/15/2019  
Date Data Arrived at EDR: 02/19/2019  
Date Made Active in Reports: 03/05/2019  
Number of Days to Update: 14

Source: California Integrated Waste Management Board  
Telephone: 916-341-6066  
Last EDR Contact: 05/09/2019  
Next Scheduled EDR Contact: 08/26/2019  
Data Release Frequency: Varies

## HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2017  
Date Data Arrived at EDR: 10/10/2018  
Date Made Active in Reports: 11/16/2018  
Number of Days to Update: 37

Source: California Environmental Protection Agency  
Telephone: 916-255-1136  
Last EDR Contact: 04/22/2019  
Next Scheduled EDR Contact: 07/22/2019  
Data Release Frequency: Annually

## ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 02/19/2019  
Date Data Arrived at EDR: 02/20/2019  
Date Made Active in Reports: 03/05/2019  
Number of Days to Update: 13

Source: Department of Toxic Substances Control  
Telephone: 877-786-9427  
Last EDR Contact: 05/21/2019  
Next Scheduled EDR Contact: 09/02/2019  
Data Release Frequency: Quarterly

## HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001  
Date Data Arrived at EDR: 01/22/2009  
Date Made Active in Reports: 04/08/2009  
Number of Days to Update: 76

Source: Department of Toxic Substances Control  
Telephone: 916-323-3400  
Last EDR Contact: 01/22/2009  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

## HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 02/19/2019  
Date Data Arrived at EDR: 02/20/2019  
Date Made Active in Reports: 03/05/2019  
Number of Days to Update: 13

Source: Department of Toxic Substances Control  
Telephone: 916-323-3400  
Last EDR Contact: 05/21/2019  
Next Scheduled EDR Contact: 09/02/2019  
Data Release Frequency: Quarterly

## HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 01/07/2019  
Date Data Arrived at EDR: 01/08/2019  
Date Made Active in Reports: 03/05/2019  
Number of Days to Update: 56

Source: Department of Toxic Substances Control  
Telephone: 916-440-7145  
Last EDR Contact: 04/09/2019  
Next Scheduled EDR Contact: 07/22/2019  
Data Release Frequency: Quarterly



# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## MINES: Mines Site Location Listing

A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 12/10/2018	Source: Department of Conservation
Date Data Arrived at EDR: 12/12/2018	Telephone: 916-322-1080
Date Made Active in Reports: 01/15/2019	Last EDR Contact: 12/12/2018
Number of Days to Update: 34	Next Scheduled EDR Contact: 03/25/2019
	Data Release Frequency: Quarterly

## MWMP: Medical Waste Management Program Listing

The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 02/20/2019	Source: Department of Public Health
Date Data Arrived at EDR: 03/05/2019	Telephone: 916-558-1784
Date Made Active in Reports: 04/02/2019	Last EDR Contact: 03/05/2019
Number of Days to Update: 28	Next Scheduled EDR Contact: 06/17/2019
	Data Release Frequency: Varies

## NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 02/11/2019	Source: State Water Resources Control Board
Date Data Arrived at EDR: 02/12/2019	Telephone: 916-445-9379
Date Made Active in Reports: 03/07/2019	Last EDR Contact: 05/14/2019
Number of Days to Update: 23	Next Scheduled EDR Contact: 08/26/2019
	Data Release Frequency: Quarterly

## PEST LIC: Pesticide Regulation Licenses Listing

A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 03/04/2019	Source: Department of Pesticide Regulation
Date Data Arrived at EDR: 03/05/2019	Telephone: 916-445-4038
Date Made Active in Reports: 04/05/2019	Last EDR Contact: 03/05/2019
Number of Days to Update: 31	Next Scheduled EDR Contact: 06/17/2019
	Data Release Frequency: Quarterly

## PROC: Certified Processors Database

A listing of certified processors.

Date of Government Version: 03/11/2019	Source: Department of Conservation
Date Data Arrived at EDR: 03/13/2019	Telephone: 916-323-3836
Date Made Active in Reports: 04/29/2019	Last EDR Contact: 03/13/2019
Number of Days to Update: 47	Next Scheduled EDR Contact: 06/24/2019
	Data Release Frequency: Quarterly

## NOTIFY 65: Proposition 65 Records

Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 03/18/2019	Source: State Water Resources Control Board
Date Data Arrived at EDR: 03/19/2019	Telephone: 916-445-3846
Date Made Active in Reports: 04/29/2019	Last EDR Contact: 03/18/2019
Number of Days to Update: 41	Next Scheduled EDR Contact: 07/01/2019
	Data Release Frequency: No Update Planned

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## UIC: UIC Listing

A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 04/27/2018	Source: Department of Conservation
Date Data Arrived at EDR: 06/13/2018	Telephone: 916-445-2408
Date Made Active in Reports: 07/17/2018	Last EDR Contact: 03/13/2019
Number of Days to Update: 34	Next Scheduled EDR Contact: 06/24/2019
	Data Release Frequency: Varies

## UIC GEO: Underground Injection Control Sites (GEOTRACKER)

Underground control injection sites

Date of Government Version: 12/10/2018	Source: State Water Resource Control Board
Date Data Arrived at EDR: 12/11/2018	Telephone: 866-480-1028
Date Made Active in Reports: 01/15/2019	Last EDR Contact: 12/12/2018
Number of Days to Update: 35	Next Scheduled EDR Contact: 03/25/2019
	Data Release Frequency: Varies

## WASTEWATER PITS: Oil Wastewater Pits Listing

Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water boards review found that more than one-third of the region's active disposal pits are operating without permission.

Date of Government Version: 05/08/2018	Source: RWQCB, Central Valley Region
Date Data Arrived at EDR: 07/11/2018	Telephone: 559-445-5577
Date Made Active in Reports: 09/13/2018	Last EDR Contact: 04/12/2019
Number of Days to Update: 64	Next Scheduled EDR Contact: 07/22/2019
	Data Release Frequency: Varies

## WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007	Source: State Water Resources Control Board
Date Data Arrived at EDR: 06/20/2007	Telephone: 916-341-5227
Date Made Active in Reports: 06/29/2007	Last EDR Contact: 05/16/2019
Number of Days to Update: 9	Next Scheduled EDR Contact: 09/02/2019
	Data Release Frequency: Quarterly

## MILITARY PRIV SITES: Military Privatized Sites (GEOTRACKER)

Military privatized sites

Date of Government Version: 12/10/2018	Source: State Water Resources Control Board
Date Data Arrived at EDR: 12/11/2018	Telephone: 866-480-1028
Date Made Active in Reports: 01/15/2019	Last EDR Contact: 12/12/2018
Number of Days to Update: 35	Next Scheduled EDR Contact: 03/25/2019
	Data Release Frequency: Varies

## PROJECT: Project Sites (GEOTRACKER)

Projects sites

Date of Government Version: 12/10/2018	Source: State Water Resources Control Board
Date Data Arrived at EDR: 12/11/2018	Telephone: 866-480-1028
Date Made Active in Reports: 01/15/2019	Last EDR Contact: 12/12/2018
Number of Days to Update: 35	Next Scheduled EDR Contact: 03/25/2019
	Data Release Frequency: Varies

## WDR: Waste Discharge Requirements Listing

In general, the Waste Discharge Requirements (WDRs) Program (sometimes also referred to as the "Non Chapter 15 (Non 15) Program") regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g., sewage, wastewater, etc.) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/11/2019  
Date Data Arrived at EDR: 03/13/2019  
Date Made Active in Reports: 04/29/2019  
Number of Days to Update: 47

Source: State Water Resources Control Board  
Telephone: 916-341-5810  
Last EDR Contact: 03/13/2019  
Next Scheduled EDR Contact: 06/24/2019  
Data Release Frequency: Quarterly

## CIWQS: California Integrated Water Quality System

The California Integrated Water Quality System (CIWQS) is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

Date of Government Version: 03/05/2019  
Date Data Arrived at EDR: 03/05/2019  
Date Made Active in Reports: 04/02/2019  
Number of Days to Update: 28

Source: State Water Resources Control Board  
Telephone: 866-794-4977  
Last EDR Contact: 03/05/2019  
Next Scheduled EDR Contact: 06/17/2019  
Data Release Frequency: Varies

## CERS: CalEPA Regulated Site Portal Data

The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

Date of Government Version: 04/09/2019  
Date Data Arrived at EDR: 04/11/2019  
Date Made Active in Reports: 05/08/2019  
Number of Days to Update: 27

Source: California Environmental Protection Agency  
Telephone: 916-323-2514  
Last EDR Contact: 04/11/2019  
Next Scheduled EDR Contact: 08/05/2019  
Data Release Frequency: Varies

## WIP: Well Investigation Program Case List

Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009  
Date Data Arrived at EDR: 07/21/2009  
Date Made Active in Reports: 08/03/2009  
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board  
Telephone: 213-576-6726  
Last EDR Contact: 03/25/2019  
Next Scheduled EDR Contact: 07/08/2019  
Data Release Frequency: Varies

## NON-CASE INFO: Non-Case Information Sites (GEOTRACKER)

Non-Case Information sites

Date of Government Version: 12/10/2018  
Date Data Arrived at EDR: 12/11/2018  
Date Made Active in Reports: 01/15/2019  
Number of Days to Update: 35

Source: State Water Resources Control Board  
Telephone: 866-480-1028  
Last EDR Contact: 12/12/2018  
Next Scheduled EDR Contact: 03/25/2019  
Data Release Frequency: Varies

## OTHER OIL GAS: Other Oil & Gas Projects Sites (GEOTRACKER)

Other Oil & Gas Projects sites

Date of Government Version: 12/10/2018  
Date Data Arrived at EDR: 12/11/2018  
Date Made Active in Reports: 01/15/2019  
Number of Days to Update: 35

Source: State Water Resources Control Board  
Telephone: 866-480-1028  
Last EDR Contact: 12/12/2018  
Next Scheduled EDR Contact: 03/25/2019  
Data Release Frequency: Varies

## PROD WATER PONDS: Produced Water Ponds Sites (GEOTRACKER)

Produced water ponds sites

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/10/2018  
Date Data Arrived at EDR: 12/11/2018  
Date Made Active in Reports: 01/15/2019  
Number of Days to Update: 35

Source: State Water Resources Control Board  
Telephone: 866-480-1028  
Last EDR Contact: 12/12/2018  
Next Scheduled EDR Contact: 03/25/2019  
Data Release Frequency: Varies

## SAMPLING POINT: Sampling Point ? Public Sites (GEOTRACKER)

Sampling point - public sites

Date of Government Version: 12/10/2018  
Date Data Arrived at EDR: 12/11/2018  
Date Made Active in Reports: 01/15/2019  
Number of Days to Update: 35

Source: State Water Resources Control Board  
Telephone: 866-480-1028  
Last EDR Contact: 12/12/2018  
Next Scheduled EDR Contact: 03/25/2019  
Data Release Frequency: Varies

## WELL STIM PROJ: Well Stimulation Project (GEOTRACKER)

Includes areas of groundwater monitoring plans, a depiction of the monitoring network, and the facilities, boundaries, and subsurface characteristics of the oilfield and the features (oil and gas wells, produced water ponds, UIC wells, water supply wells, etc?) being monitored

Date of Government Version: 12/10/2018  
Date Data Arrived at EDR: 12/11/2018  
Date Made Active in Reports: 01/15/2019  
Number of Days to Update: 35

Source: State Water Resources Control Board  
Telephone: 866-480-1028  
Last EDR Contact: 12/12/2018  
Next Scheduled EDR Contact: 03/25/2019  
Data Release Frequency: Varies

## EDR HIGH RISK HISTORICAL RECORDS

### *EDR Exclusive Records*

#### EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A  
Date Data Arrived at EDR: N/A  
Date Made Active in Reports: N/A  
Number of Days to Update: N/A

Source: EDR, Inc.  
Telephone: N/A  
Last EDR Contact: N/A  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

#### EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A  
Date Data Arrived at EDR: N/A  
Date Made Active in Reports: N/A  
Number of Days to Update: N/A

Source: EDR, Inc.  
Telephone: N/A  
Last EDR Contact: N/A  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A	Source: EDR, Inc.
Date Data Arrived at EDR: N/A	Telephone: N/A
Date Made Active in Reports: N/A	Last EDR Contact: N/A
Number of Days to Update: N/A	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

## EDR RECOVERED GOVERNMENT ARCHIVES

### *Exclusive Recovered Govt. Archives*

#### RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A	Source: Department of Resources Recycling and Recovery
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 01/13/2014	Last EDR Contact: 06/01/2012
Number of Days to Update: 196	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

#### RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A	Source: State Water Resources Control Board
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 12/30/2013	Last EDR Contact: 06/01/2012
Number of Days to Update: 182	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

## COUNTY RECORDS

### ALAMEDA COUNTY:

#### CS ALAMEDA: Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/09/2019	Source: Alameda County Environmental Health Services
Date Data Arrived at EDR: 01/11/2019	Telephone: 510-567-6700
Date Made Active in Reports: 03/05/2019	Last EDR Contact: 04/22/2019
Number of Days to Update: 53	Next Scheduled EDR Contact: 07/22/2019
	Data Release Frequency: Semi-Annually

#### UST ALAMEDA: Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 01/07/2019	Source: Alameda County Environmental Health Services
Date Data Arrived at EDR: 01/08/2019	Telephone: 510-567-6700
Date Made Active in Reports: 03/08/2019	Last EDR Contact: 04/08/2019
Number of Days to Update: 59	Next Scheduled EDR Contact: 04/24/2047
	Data Release Frequency: Semi-Annually

### AMADOR COUNTY:

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## CUPA AMADOR: CUPA Facility List Cupa Facility List

Date of Government Version: 01/07/2019  
Date Data Arrived at EDR: 01/08/2019  
Date Made Active in Reports: 03/07/2019  
Number of Days to Update: 58

Source: Amador County Environmental Health  
Telephone: 209-223-6439  
Last EDR Contact: 02/27/2019  
Next Scheduled EDR Contact: 06/17/2019  
Data Release Frequency: Varies

## BUTTE COUNTY:

### CUPA BUTTE: CUPA Facility Listing Cupa facility list.

Date of Government Version: 04/21/2017  
Date Data Arrived at EDR: 04/25/2017  
Date Made Active in Reports: 08/09/2017  
Number of Days to Update: 106

Source: Public Health Department  
Telephone: 530-538-7149  
Last EDR Contact: 04/08/2019  
Next Scheduled EDR Contact: 07/22/2019  
Data Release Frequency: No Update Planned

## CALVERAS COUNTY:

### CUPA CALVERAS: CUPA Facility Listing Cupa Facility Listing

Date of Government Version: 01/24/2019  
Date Data Arrived at EDR: 01/25/2019  
Date Made Active in Reports: 03/05/2019  
Number of Days to Update: 39

Source: Calveras County Environmental Health  
Telephone: 209-754-6399  
Last EDR Contact: 03/25/2019  
Next Scheduled EDR Contact: 07/08/2019  
Data Release Frequency: Quarterly

## COLUSA COUNTY:

### CUPA COLUSA: CUPA Facility List Cupa facility list.

Date of Government Version: 02/27/2019  
Date Data Arrived at EDR: 02/28/2019  
Date Made Active in Reports: 04/01/2019  
Number of Days to Update: 32

Source: Health & Human Services  
Telephone: 530-458-0396  
Last EDR Contact: 05/16/2019  
Next Scheduled EDR Contact: 08/19/2019  
Data Release Frequency: Semi-Annually

## CONTRA COSTA COUNTY:

### SL CONTRA COSTA: Site List

List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 02/14/2019  
Date Data Arrived at EDR: 02/19/2019  
Date Made Active in Reports: 03/08/2019  
Number of Days to Update: 17

Source: Contra Costa Health Services Department  
Telephone: 925-646-2286  
Last EDR Contact: 04/29/2019  
Next Scheduled EDR Contact: 08/12/2019  
Data Release Frequency: Semi-Annually

## DEL NORTE COUNTY:

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## CUPA DEL NORTE: CUPA Facility List Cupa Facility list

Date of Government Version: 01/16/2019  
Date Data Arrived at EDR: 02/05/2019  
Date Made Active in Reports: 03/05/2019  
Number of Days to Update: 28

Source: Del Norte County Environmental Health Division  
Telephone: 707-465-0426  
Last EDR Contact: 04/25/2019  
Next Scheduled EDR Contact: 08/12/2019  
Data Release Frequency: Varies

## EL DORADO COUNTY:

### CUPA EL DORADO: CUPA Facility List CUPA facility list.

Date of Government Version: 02/27/2019  
Date Data Arrived at EDR: 02/28/2019  
Date Made Active in Reports: 04/01/2019  
Number of Days to Update: 32

Source: El Dorado County Environmental Management Department  
Telephone: 530-621-6623  
Last EDR Contact: 04/29/2019  
Next Scheduled EDR Contact: 08/12/2019  
Data Release Frequency: Varies

## FRESNO COUNTY:

### CUPA FRESNO: CUPA Resources List

Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 04/10/2019  
Date Data Arrived at EDR: 04/11/2019  
Date Made Active in Reports: 04/30/2019  
Number of Days to Update: 19

Source: Dept. of Community Health  
Telephone: 559-445-3271  
Last EDR Contact: 03/29/2019  
Next Scheduled EDR Contact: 07/15/2019  
Data Release Frequency: Semi-Annually

## GLENN COUNTY:

### CUPA GLENN: CUPA Facility List Cupa facility list

Date of Government Version: 01/22/2018  
Date Data Arrived at EDR: 01/24/2018  
Date Made Active in Reports: 03/14/2018  
Number of Days to Update: 49

Source: Glenn County Air Pollution Control District  
Telephone: 830-934-6500  
Last EDR Contact: 04/22/2019  
Next Scheduled EDR Contact: 08/05/2019  
Data Release Frequency: Varies

## HUMBOLDT COUNTY:

### CUPA HUMBOLDT: CUPA Facility List CUPA facility list.

Date of Government Version: 12/11/2018  
Date Data Arrived at EDR: 12/13/2018  
Date Made Active in Reports: 01/15/2019  
Number of Days to Update: 33

Source: Humboldt County Environmental Health  
Telephone: N/A  
Last EDR Contact: 05/20/2019  
Next Scheduled EDR Contact: 09/02/2019  
Data Release Frequency: Semi-Annually

## IMPERIAL COUNTY:

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## CUPA IMPERIAL: CUPA Facility List Cupa facility list.

Date of Government Version: 01/18/2019  
Date Data Arrived at EDR: 01/23/2019  
Date Made Active in Reports: 03/05/2019  
Number of Days to Update: 41

Source: San Diego Border Field Office  
Telephone: 760-339-2777  
Last EDR Contact: 04/22/2019  
Next Scheduled EDR Contact: 08/05/2019  
Data Release Frequency: Varies

## INYO COUNTY:

### CUPA INYO: CUPA Facility List Cupa facility list.

Date of Government Version: 04/02/2018  
Date Data Arrived at EDR: 04/03/2018  
Date Made Active in Reports: 06/14/2018  
Number of Days to Update: 29

Source: Inyo County Environmental Health Services  
Telephone: 760-878-0238  
Last EDR Contact: 05/16/2019  
Next Scheduled EDR Contact: 09/02/2019  
Data Release Frequency: Varies

## KERN COUNTY:

### UST KERN: Underground Storage Tank Sites & Tank Listing Kern County Sites and Tanks Listing.

Date of Government Version: 01/28/2019  
Date Data Arrived at EDR: 02/07/2019  
Date Made Active in Reports: 03/08/2019  
Number of Days to Update: 29

Source: Kern County Environment Health Services Department  
Telephone: 661-862-8700  
Last EDR Contact: 05/02/2019  
Next Scheduled EDR Contact: 08/19/2019  
Data Release Frequency: Quarterly

## KINGS COUNTY:

### CUPA KINGS: CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 02/14/2019  
Date Data Arrived at EDR: 02/19/2019  
Date Made Active in Reports: 03/05/2019  
Number of Days to Update: 14

Source: Kings County Department of Public Health  
Telephone: 559-584-1411  
Last EDR Contact: 05/16/2019  
Next Scheduled EDR Contact: 09/02/2019  
Data Release Frequency: Varies

## LAKE COUNTY:

### CUPA LAKE: CUPA Facility List Cupa facility list

Date of Government Version: 02/08/2019  
Date Data Arrived at EDR: 02/12/2019  
Date Made Active in Reports: 03/12/2019  
Number of Days to Update: 28

Source: Lake County Environmental Health  
Telephone: 707-263-1164  
Last EDR Contact: 04/15/2019  
Next Scheduled EDR Contact: 07/29/2019  
Data Release Frequency: Varies

## LASSEN COUNTY:



# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## CUPA LASSEN: CUPA Facility List Cupa facility list

Date of Government Version: 01/17/2019  
Date Data Arrived at EDR: 01/18/2019  
Date Made Active in Reports: 03/05/2019  
Number of Days to Update: 46

Source: Lassen County Environmental Health  
Telephone: 530-251-8528  
Last EDR Contact: 04/22/2019  
Next Scheduled EDR Contact: 08/05/2019  
Data Release Frequency: Varies

## LOS ANGELES COUNTY:

### AOCONCERN: Key Areas of Concerns in Los Angeles County

San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office. Date of Government Version: 3/30/2009 Exide Site area is a cleanup plan of lead-impacted soil surrounding the former Exide Facility as designated by the DTSC. Date of Government Version: 7/17/2017

Date of Government Version: 03/30/2009  
Date Data Arrived at EDR: 03/31/2009  
Date Made Active in Reports: 10/23/2009  
Number of Days to Update: 206

Source: N/A  
Telephone: N/A  
Last EDR Contact: 03/18/2019  
Next Scheduled EDR Contact: 07/01/2019  
Data Release Frequency: No Update Planned

### HMS LOS ANGELES: HMS: Street Number List

Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 12/19/2018  
Date Data Arrived at EDR: 01/10/2019  
Date Made Active in Reports: 03/07/2019  
Number of Days to Update: 56

Source: Department of Public Works  
Telephone: 626-458-3517  
Last EDR Contact: 05/02/2019  
Next Scheduled EDR Contact: 07/22/2019  
Data Release Frequency: Semi-Annually

### LF LOS ANGELES: List of Solid Waste Facilities

Solid Waste Facilities in Los Angeles County.

Date of Government Version: 01/14/2019  
Date Data Arrived at EDR: 01/15/2019  
Date Made Active in Reports: 03/07/2019  
Number of Days to Update: 51

Source: La County Department of Public Works  
Telephone: 818-458-5185  
Last EDR Contact: 04/16/2019  
Next Scheduled EDR Contact: 07/29/2019  
Data Release Frequency: Varies

### LF LOS ANGELES CITY: City of Los Angeles Landfills

Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2019  
Date Data Arrived at EDR: 01/15/2019  
Date Made Active in Reports: 03/07/2019  
Number of Days to Update: 51

Source: Engineering & Construction Division  
Telephone: 213-473-7869  
Last EDR Contact: 04/15/2019  
Next Scheduled EDR Contact: 07/29/2019  
Data Release Frequency: Varies

### SITE MIT LOS ANGELES: Site Mitigation List

Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 01/30/2019  
Date Data Arrived at EDR: 02/01/2019  
Date Made Active in Reports: 03/07/2019  
Number of Days to Update: 34

Source: Community Health Services  
Telephone: 323-890-7806  
Last EDR Contact: 04/16/2019  
Next Scheduled EDR Contact: 07/29/2019  
Data Release Frequency: Annually

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST EL SEGUNDO: City of El Segundo Underground Storage Tank  
Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/21/2017	Source: City of El Segundo Fire Department
Date Data Arrived at EDR: 04/19/2017	Telephone: 310-524-2236
Date Made Active in Reports: 05/10/2017	Last EDR Contact: 04/15/2019
Number of Days to Update: 21	Next Scheduled EDR Contact: 07/29/2019
	Data Release Frequency: Semi-Annually

UST LONG BEACH: City of Long Beach Underground Storage Tank  
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 03/09/2017	Source: City of Long Beach Fire Department
Date Data Arrived at EDR: 03/10/2017	Telephone: 562-570-2563
Date Made Active in Reports: 05/03/2017	Last EDR Contact: 04/22/2019
Number of Days to Update: 54	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Annually

UST TORRANCE: City of Torrance Underground Storage Tank  
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 10/02/2018	Source: City of Torrance Fire Department
Date Data Arrived at EDR: 10/05/2018	Telephone: 310-618-2973
Date Made Active in Reports: 11/02/2018	Last EDR Contact: 04/22/2019
Number of Days to Update: 28	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA MADERA: CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 02/20/2019	Source: Madera County Environmental Health
Date Data Arrived at EDR: 02/22/2019	Telephone: 559-675-7823
Date Made Active in Reports: 03/07/2019	Last EDR Contact: 05/16/2019
Number of Days to Update: 13	Next Scheduled EDR Contact: 09/02/2019
	Data Release Frequency: Varies

MARIN COUNTY:

UST MARIN: Underground Storage Tank Sites  
Currently permitted USTs in Marin County.

Date of Government Version: 09/26/2018	Source: Public Works Department Waste Management
Date Data Arrived at EDR: 10/04/2018	Telephone: 415-473-6647
Date Made Active in Reports: 11/02/2018	Last EDR Contact: 03/29/2019
Number of Days to Update: 29	Next Scheduled EDR Contact: 07/15/2019
	Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA MERCED: CUPA Facility List  
CUPA facility list.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/11/2019  
Date Data Arrived at EDR: 03/19/2019  
Date Made Active in Reports: 05/08/2019  
Number of Days to Update: 50

Source: Merced County Environmental Health  
Telephone: 209-381-1094  
Last EDR Contact: 05/16/2019  
Next Scheduled EDR Contact: 09/02/2019  
Data Release Frequency: Varies

## MONO COUNTY:

CUPA MONO: CUPA Facility List  
CUPA Facility List

Date of Government Version: 02/21/2019  
Date Data Arrived at EDR: 02/26/2019  
Date Made Active in Reports: 04/01/2019  
Number of Days to Update: 34

Source: Mono County Health Department  
Telephone: 760-932-5580  
Last EDR Contact: 02/21/2019  
Next Scheduled EDR Contact: 06/10/2019  
Data Release Frequency: Varies

## MONTEREY COUNTY:

CUPA MONTEREY: CUPA Facility Listing  
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 02/05/2019  
Date Data Arrived at EDR: 02/07/2019  
Date Made Active in Reports: 03/05/2019  
Number of Days to Update: 26

Source: Monterey County Health Department  
Telephone: 831-796-1297  
Last EDR Contact: 04/01/2019  
Next Scheduled EDR Contact: 07/15/2019  
Data Release Frequency: Varies

## NAPA COUNTY:

LUST NAPA: Sites With Reported Contamination

A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017  
Date Data Arrived at EDR: 01/11/2017  
Date Made Active in Reports: 03/02/2017  
Number of Days to Update: 50

Source: Napa County Department of Environmental Management  
Telephone: 707-253-4269  
Last EDR Contact: 02/21/2019  
Next Scheduled EDR Contact: 06/10/2019  
Data Release Frequency: No Update Planned

UST NAPA: Closed and Operating Underground Storage Tank Sites

Underground storage tank sites located in Napa county.

Date of Government Version: 02/21/2019  
Date Data Arrived at EDR: 02/22/2019  
Date Made Active in Reports: 03/08/2019  
Number of Days to Update: 14

Source: Napa County Department of Environmental Management  
Telephone: 707-253-4269  
Last EDR Contact: 02/21/2019  
Next Scheduled EDR Contact: 06/10/2019  
Data Release Frequency: No Update Planned

## NEVADA COUNTY:

CUPA NEVADA: CUPA Facility List  
CUPA facility list.

Date of Government Version: 01/25/2019  
Date Data Arrived at EDR: 01/29/2019  
Date Made Active in Reports: 03/05/2019  
Number of Days to Update: 35

Source: Community Development Agency  
Telephone: 530-265-1467  
Last EDR Contact: 05/13/2019  
Next Scheduled EDR Contact: 08/12/2019  
Data Release Frequency: Varies

## ORANGE COUNTY:

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## IND\_SITE ORANGE: List of Industrial Site Cleanups Petroleum and non-petroleum spills.

Date of Government Version: 01/02/2019	Source: Health Care Agency
Date Data Arrived at EDR: 02/07/2019	Telephone: 714-834-3446
Date Made Active in Reports: 03/05/2019	Last EDR Contact: 05/06/2019
Number of Days to Update: 26	Next Scheduled EDR Contact: 08/19/2019
	Data Release Frequency: Annually

## LUST ORANGE: List of Underground Storage Tank Cleanups Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 01/02/2019	Source: Health Care Agency
Date Data Arrived at EDR: 02/08/2019	Telephone: 714-834-3446
Date Made Active in Reports: 03/06/2019	Last EDR Contact: 05/06/2019
Number of Days to Update: 26	Next Scheduled EDR Contact: 08/19/2019
	Data Release Frequency: Quarterly

## UST ORANGE: List of Underground Storage Tank Facilities Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 01/02/2019	Source: Health Care Agency
Date Data Arrived at EDR: 02/05/2019	Telephone: 714-834-3446
Date Made Active in Reports: 03/08/2019	Last EDR Contact: 05/07/2019
Number of Days to Update: 31	Next Scheduled EDR Contact: 08/19/2019
	Data Release Frequency: Quarterly

## PLACER COUNTY:

### MS PLACER: Master List of Facilities

List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 02/28/2019	Source: Placer County Health and Human Services
Date Data Arrived at EDR: 03/01/2019	Telephone: 530-745-2363
Date Made Active in Reports: 04/12/2019	Last EDR Contact: 02/27/2019
Number of Days to Update: 42	Next Scheduled EDR Contact: 06/17/2019
	Data Release Frequency: Semi-Annually

## PLUMAS COUNTY:

### CUPA PLUMAS: CUPA Facility List

Plumas County CUPA Program facilities.

Date of Government Version: 01/14/2019	Source: Plumas County Environmental Health
Date Data Arrived at EDR: 01/18/2019	Telephone: 530-283-6355
Date Made Active in Reports: 03/05/2019	Last EDR Contact: 04/22/2019
Number of Days to Update: 46	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Varies

## RIVERSIDE COUNTY:

### LUST RIVERSIDE: Listing of Underground Tank Cleanup Sites

Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 04/11/2019	Source: Department of Environmental Health
Date Data Arrived at EDR: 04/12/2019	Telephone: 951-358-5055
Date Made Active in Reports: 04/30/2019	Last EDR Contact: 03/18/2019
Number of Days to Update: 18	Next Scheduled EDR Contact: 07/01/2019
	Data Release Frequency: Quarterly

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## UST RIVERSIDE: Underground Storage Tank Tank List

Underground storage tank sites located in Riverside county.

Date of Government Version: 01/29/2019  
Date Data Arrived at EDR: 01/31/2019  
Date Made Active in Reports: 03/08/2019  
Number of Days to Update: 36

Source: Department of Environmental Health  
Telephone: 951-358-5055  
Last EDR Contact: 03/18/2019  
Next Scheduled EDR Contact: 07/01/2019  
Data Release Frequency: Quarterly

## SACRAMENTO COUNTY:

### CS SACRAMENTO: Toxic Site Clean-Up List

List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 11/07/2018  
Date Data Arrived at EDR: 01/04/2019  
Date Made Active in Reports: 03/05/2019  
Number of Days to Update: 60

Source: Sacramento County Environmental Management  
Telephone: 916-875-8406  
Last EDR Contact: 04/02/2019  
Next Scheduled EDR Contact: 07/15/2019  
Data Release Frequency: Quarterly

### ML SACRAMENTO: Master Hazardous Materials Facility List

Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 11/07/2018  
Date Data Arrived at EDR: 12/28/2018  
Date Made Active in Reports: 03/05/2019  
Number of Days to Update: 67

Source: Sacramento County Environmental Management  
Telephone: 916-875-8406  
Last EDR Contact: 04/02/2019  
Next Scheduled EDR Contact: 07/15/2019  
Data Release Frequency: Quarterly

## SAN BENITO COUNTY:

### CUPA SAN BENITO: CUPA Facility List

Cupa facility list

Date of Government Version: 03/11/2019  
Date Data Arrived at EDR: 03/13/2019  
Date Made Active in Reports: 04/30/2019  
Number of Days to Update: 48

Source: San Benito County Environmental Health  
Telephone: N/A  
Last EDR Contact: 05/02/2019  
Next Scheduled EDR Contact: 08/19/2019  
Data Release Frequency: Varies

## SAN BERNARDINO COUNTY:

### PERMITS SAN BERNARDINO: Hazardous Material Permits

This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 02/27/2019  
Date Data Arrived at EDR: 02/28/2019  
Date Made Active in Reports: 04/02/2019  
Number of Days to Update: 33

Source: San Bernardino County Fire Department Hazardous Materials Division  
Telephone: 909-387-3041  
Last EDR Contact: 05/06/2019  
Next Scheduled EDR Contact: 08/19/2019  
Data Release Frequency: Quarterly

## SAN DIEGO COUNTY:

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## HMMD SAN DIEGO: Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 03/04/2019  
Date Data Arrived at EDR: 03/05/2019  
Date Made Active in Reports: 04/02/2019  
Number of Days to Update: 28

Source: Hazardous Materials Management Division  
Telephone: 619-338-2268  
Last EDR Contact: 03/05/2019  
Next Scheduled EDR Contact: 06/17/2019  
Data Release Frequency: Quarterly

## LF SAN DIEGO: Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 04/18/2018  
Date Data Arrived at EDR: 04/24/2018  
Date Made Active in Reports: 06/19/2018  
Number of Days to Update: 56

Source: Department of Health Services  
Telephone: 619-338-2209  
Last EDR Contact: 04/22/2019  
Next Scheduled EDR Contact: 08/05/2019  
Data Release Frequency: Varies

## SAN DIEGO CO LOP: Local Oversight Program Listing

A listing of all LOP release sites that are or were under the County of San Diego's jurisdiction. Included are closed or transferred cases, open cases, and cases that did not have a case type indicated. The cases without a case type are mostly complaints; however, some of them could be LOP cases.

Date of Government Version: 03/06/2019  
Date Data Arrived at EDR: 03/06/2019  
Date Made Active in Reports: 04/29/2019  
Number of Days to Update: 54

Source: Department of Environmental Health  
Telephone: 858-505-6874  
Last EDR Contact: 04/22/2019  
Next Scheduled EDR Contact: 08/05/2019  
Data Release Frequency: Varies

## SAN DIEGO CO. SAM: Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010  
Date Data Arrived at EDR: 06/15/2010  
Date Made Active in Reports: 07/09/2010  
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health  
Telephone: 619-338-2371  
Last EDR Contact: 02/27/2019  
Next Scheduled EDR Contact: 06/17/2019  
Data Release Frequency: No Update Planned

## SAN FRANCISCO COUNTY:

### LUST SAN FRANCISCO: Local Oversight Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008  
Date Data Arrived at EDR: 09/19/2008  
Date Made Active in Reports: 09/29/2008  
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County  
Telephone: 415-252-3920  
Last EDR Contact: 05/02/2019  
Next Scheduled EDR Contact: 08/19/2019  
Data Release Frequency: Quarterly

### UST SAN FRANCISCO: Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 11/05/2018  
Date Data Arrived at EDR: 11/06/2018  
Date Made Active in Reports: 12/14/2018  
Number of Days to Update: 38

Source: Department of Public Health  
Telephone: 415-252-3920  
Last EDR Contact: 05/02/2019  
Next Scheduled EDR Contact: 08/19/2019  
Data Release Frequency: Quarterly

## SAN JOAQUIN COUNTY:

### UST SAN JOAQUIN: San Joaquin Co. UST

A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/22/2018  
Date Data Arrived at EDR: 06/26/2018  
Date Made Active in Reports: 07/11/2018  
Number of Days to Update: 15

Source: Environmental Health Department  
Telephone: N/A  
Last EDR Contact: 03/18/2019  
Next Scheduled EDR Contact: 07/01/2019  
Data Release Frequency: Semi-Annually

## SAN LUIS OBISPO COUNTY:

### CUPA SAN LUIS OBISPO: CUPA Facility List Cupa Facility List.

Date of Government Version: 02/13/2019  
Date Data Arrived at EDR: 02/15/2019  
Date Made Active in Reports: 03/14/2019  
Number of Days to Update: 27

Source: San Luis Obispo County Public Health Department  
Telephone: 805-781-5596  
Last EDR Contact: 05/16/2019  
Next Scheduled EDR Contact: 09/02/2019  
Data Release Frequency: Varies

## SAN MATEO COUNTY:

### BI SAN MATEO: Business Inventory

List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 03/04/2019  
Date Data Arrived at EDR: 03/13/2019  
Date Made Active in Reports: 04/29/2019  
Number of Days to Update: 47

Source: San Mateo County Environmental Health Services Division  
Telephone: 650-363-1921  
Last EDR Contact: 03/13/2019  
Next Scheduled EDR Contact: 06/24/2019  
Data Release Frequency: Annually

### LUST SAN MATEO: Fuel Leak List

A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 12/13/2018  
Date Data Arrived at EDR: 12/18/2018  
Date Made Active in Reports: 01/23/2019  
Number of Days to Update: 36

Source: San Mateo County Environmental Health Services Division  
Telephone: 650-363-1921  
Last EDR Contact: 03/25/2019  
Next Scheduled EDR Contact: 06/24/2019  
Data Release Frequency: Semi-Annually

## SANTA BARBARA COUNTY:

### CUPA SANTA BARBARA: CUPA Facility Listing

CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011  
Date Data Arrived at EDR: 09/09/2011  
Date Made Active in Reports: 10/07/2011  
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department  
Telephone: 805-686-8167  
Last EDR Contact: 05/16/2019  
Next Scheduled EDR Contact: 09/02/2019  
Data Release Frequency: Varies

## SANTA CLARA COUNTY:

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## CUPA SANTA CLARA: Cupa Facility List Cupa facility list

Date of Government Version: 02/13/2019  
Date Data Arrived at EDR: 02/19/2019  
Date Made Active in Reports: 03/06/2019  
Number of Days to Update: 15

Source: Department of Environmental Health  
Telephone: 408-918-1973  
Last EDR Contact: 05/16/2019  
Next Scheduled EDR Contact: 09/02/2019  
Data Release Frequency: Varies

## HIST LUST SANTA CLARA: HIST LUST - Fuel Leak Site Activity Report

A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005  
Date Data Arrived at EDR: 03/30/2005  
Date Made Active in Reports: 04/21/2005  
Number of Days to Update: 22

Source: Santa Clara Valley Water District  
Telephone: 408-265-2600  
Last EDR Contact: 03/23/2009  
Next Scheduled EDR Contact: 06/22/2009  
Data Release Frequency: No Update Planned

## LUST SANTA CLARA: LOP Listing

A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014  
Date Data Arrived at EDR: 03/05/2014  
Date Made Active in Reports: 03/18/2014  
Number of Days to Update: 13

Source: Department of Environmental Health  
Telephone: 408-918-3417  
Last EDR Contact: 02/21/2019  
Next Scheduled EDR Contact: 06/10/2019  
Data Release Frequency: Annually

## SAN JOSE HAZMAT: Hazardous Material Facilities

Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 01/30/2019  
Date Data Arrived at EDR: 02/01/2019  
Date Made Active in Reports: 03/07/2019  
Number of Days to Update: 34

Source: City of San Jose Fire Department  
Telephone: 408-535-7694  
Last EDR Contact: 05/16/2019  
Next Scheduled EDR Contact: 08/19/2019  
Data Release Frequency: Annually

## SANTA CRUZ COUNTY:

### CUPA SANTA CRUZ: CUPA Facility List CUPA facility listing.

Date of Government Version: 01/21/2017  
Date Data Arrived at EDR: 02/22/2017  
Date Made Active in Reports: 05/23/2017  
Number of Days to Update: 30

Source: Santa Cruz County Environmental Health  
Telephone: 831-464-2761  
Last EDR Contact: 05/16/2019  
Next Scheduled EDR Contact: 09/02/2019  
Data Release Frequency: Varies

## SHASTA COUNTY:

### CUPA SHASTA: CUPA Facility List Cupa Facility List.

Date of Government Version: 06/15/2017  
Date Data Arrived at EDR: 06/19/2017  
Date Made Active in Reports: 08/09/2017  
Number of Days to Update: 51

Source: Shasta County Department of Resource Management  
Telephone: 530-225-5789  
Last EDR Contact: 05/16/2019  
Next Scheduled EDR Contact: 09/02/2019  
Data Release Frequency: Varies

## SOLANO COUNTY:



# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## LUST SOLANO: Leaking Underground Storage Tanks

A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 03/05/2019  
Date Data Arrived at EDR: 03/07/2019  
Date Made Active in Reports: 04/29/2019  
Number of Days to Update: 53

Source: Solano County Department of Environmental Management  
Telephone: 707-784-6770  
Last EDR Contact: 02/27/2019  
Next Scheduled EDR Contact: 06/17/2019  
Data Release Frequency: Quarterly

## UST SOLANO: Underground Storage Tanks

Underground storage tank sites located in Solano county.

Date of Government Version: 03/05/2019  
Date Data Arrived at EDR: 03/07/2019  
Date Made Active in Reports: 04/03/2019  
Number of Days to Update: 27

Source: Solano County Department of Environmental Management  
Telephone: 707-784-6770  
Last EDR Contact: 02/27/2019  
Next Scheduled EDR Contact: 06/17/2019  
Data Release Frequency: Quarterly

## SONOMA COUNTY:

### CUPA SONOMA: Cupa Facility List

Cupa Facility list

Date of Government Version: 03/18/2019  
Date Data Arrived at EDR: 03/26/2019  
Date Made Active in Reports: 05/01/2019  
Number of Days to Update: 36

Source: County of Sonoma Fire & Emergency Services Department  
Telephone: 707-565-1174  
Last EDR Contact: 03/25/2019  
Next Scheduled EDR Contact: 07/08/2019  
Data Release Frequency: Varies

### LUST SONOMA: Leaking Underground Storage Tank Sites

A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 04/03/2019  
Date Data Arrived at EDR: 04/11/2019  
Date Made Active in Reports: 04/30/2019  
Number of Days to Update: 19

Source: Department of Health Services  
Telephone: 707-565-6565  
Last EDR Contact: 04/08/2019  
Next Scheduled EDR Contact: 07/08/2019  
Data Release Frequency: Quarterly

## STANISLAUS COUNTY:

### CUPA STANISLAUS: CUPA Facility List

Cupa facility list

Date of Government Version: 12/11/2018  
Date Data Arrived at EDR: 12/13/2018  
Date Made Active in Reports: 01/15/2019  
Number of Days to Update: 33

Source: Stanislaus County Department of Environmental Protection  
Telephone: 209-525-6751  
Last EDR Contact: 04/15/2019  
Next Scheduled EDR Contact: 07/29/2019  
Data Release Frequency: Varies

## SUTTER COUNTY:

### UST SUTTER: Underground Storage Tanks

Underground storage tank sites located in Sutter county.

Date of Government Version: 02/28/2019  
Date Data Arrived at EDR: 03/01/2019  
Date Made Active in Reports: 04/03/2019  
Number of Days to Update: 33

Source: Sutter County Environmental Health Services  
Telephone: 530-822-7500  
Last EDR Contact: 02/27/2019  
Next Scheduled EDR Contact: 06/17/2019  
Data Release Frequency: Semi-Annually

## TEHAMA COUNTY:

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## CUPA TEHAMA: CUPA Facility List Cupa facilities

Date of Government Version: 12/13/2018  
Date Data Arrived at EDR: 12/18/2018  
Date Made Active in Reports: 01/15/2019  
Number of Days to Update: 28

Source: Tehama County Department of Environmental Health  
Telephone: 530-527-8020  
Last EDR Contact: 05/16/2019  
Next Scheduled EDR Contact: 08/19/2019  
Data Release Frequency: Varies

## TRINITY COUNTY:

### CUPA TRINITY: CUPA Facility List Cupa facility list

Date of Government Version: 01/18/2019  
Date Data Arrived at EDR: 01/23/2019  
Date Made Active in Reports: 03/06/2019  
Number of Days to Update: 42

Source: Department of Toxic Substances Control  
Telephone: 760-352-0381  
Last EDR Contact: 04/22/2019  
Next Scheduled EDR Contact: 08/05/2019  
Data Release Frequency: Varies

## TULARE COUNTY:

### CUPA TULARE: CUPA Facility List Cupa program facilities

Date of Government Version: 12/26/2018  
Date Data Arrived at EDR: 12/27/2018  
Date Made Active in Reports: 01/15/2019  
Number of Days to Update: 19

Source: Tulare County Environmental Health Services Division  
Telephone: 559-624-7400  
Last EDR Contact: 05/06/2019  
Next Scheduled EDR Contact: 08/19/2019  
Data Release Frequency: Varies

## TUOLUMNE COUNTY:

### CUPA TUOLUMNE: CUPA Facility List Cupa facility list

Date of Government Version: 04/23/2018  
Date Data Arrived at EDR: 04/25/2018  
Date Made Active in Reports: 06/25/2018  
Number of Days to Update: 61

Source: Divison of Environmental Health  
Telephone: 209-533-5633  
Last EDR Contact: 05/02/2019  
Next Scheduled EDR Contact: 08/05/2019  
Data Release Frequency: Varies

## VENTURA COUNTY:

### BWT VENTURA: Business Plan, Hazardous Waste Producers, and Operating Underground Tanks The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 12/26/2018  
Date Data Arrived at EDR: 01/24/2019  
Date Made Active in Reports: 02/28/2019  
Number of Days to Update: 35

Source: Ventura County Environmental Health Division  
Telephone: 805-654-2813  
Last EDR Contact: 04/23/2019  
Next Scheduled EDR Contact: 08/05/2019  
Data Release Frequency: Quarterly

### LF VENTURA: Inventory of Illegal Abandoned and Inactive Sites Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/01/2011  
Date Data Arrived at EDR: 12/01/2011  
Date Made Active in Reports: 01/19/2012  
Number of Days to Update: 49

Source: Environmental Health Division  
Telephone: 805-654-2813  
Last EDR Contact: 03/29/2019  
Next Scheduled EDR Contact: 07/15/2019  
Data Release Frequency: Annually

LUST VENTURA: Listing of Underground Tank Cleanup Sites  
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008  
Date Data Arrived at EDR: 06/24/2008  
Date Made Active in Reports: 07/31/2008  
Number of Days to Update: 37

Source: Environmental Health Division  
Telephone: 805-654-2813  
Last EDR Contact: 05/09/2019  
Next Scheduled EDR Contact: 08/26/2019  
Data Release Frequency: Quarterly

MED WASTE VENTURA: Medical Waste Program List

To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 12/26/2018  
Date Data Arrived at EDR: 01/24/2019  
Date Made Active in Reports: 03/07/2019  
Number of Days to Update: 42

Source: Ventura County Resource Management Agency  
Telephone: 805-654-2813  
Last EDR Contact: 04/23/2019  
Next Scheduled EDR Contact: 08/05/2019  
Data Release Frequency: Quarterly

UST VENTURA: Underground Tank Closed Sites List

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 02/26/2019  
Date Data Arrived at EDR: 03/13/2019  
Date Made Active in Reports: 04/03/2019  
Number of Days to Update: 21

Source: Environmental Health Division  
Telephone: 805-654-2813  
Last EDR Contact: 03/13/2019  
Next Scheduled EDR Contact: 06/24/2019  
Data Release Frequency: Quarterly

YOLO COUNTY:

UST YOLO: Underground Storage Tank Comprehensive Facility Report

Underground storage tank sites located in Yolo county.

Date of Government Version: 12/26/2018  
Date Data Arrived at EDR: 01/03/2019  
Date Made Active in Reports: 01/16/2019  
Number of Days to Update: 13

Source: Yolo County Department of Health  
Telephone: 530-666-8646  
Last EDR Contact: 03/29/2019  
Next Scheduled EDR Contact: 07/15/2019  
Data Release Frequency: Annually

YUBA COUNTY:

CUPA YUBA: CUPA Facility List

CUPA facility listing for Yuba County.

Date of Government Version: 02/08/2019  
Date Data Arrived at EDR: 02/12/2019  
Date Made Active in Reports: 03/06/2019  
Number of Days to Update: 22

Source: Yuba County Environmental Health Department  
Telephone: 530-749-7523  
Last EDR Contact: 04/25/2019  
Next Scheduled EDR Contact: 08/12/2019  
Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

### CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 02/11/2019	Source: Department of Energy & Environmental Protection
Date Data Arrived at EDR: 02/12/2019	Telephone: 860-424-3375
Date Made Active in Reports: 03/04/2019	Last EDR Contact: 05/14/2019
Number of Days to Update: 20	Next Scheduled EDR Contact: 08/26/2019
	Data Release Frequency: No Update Planned

### NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2018	Source: Department of Environmental Protection
Date Data Arrived at EDR: 04/10/2019	Telephone: N/A
Date Made Active in Reports: 05/16/2019	Last EDR Contact: 04/10/2019
Number of Days to Update: 36	Next Scheduled EDR Contact: 07/22/2019
	Data Release Frequency: Annually

### NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019	Source: Department of Environmental Conservation
Date Data Arrived at EDR: 01/30/2019	Telephone: 518-402-8651
Date Made Active in Reports: 02/14/2019	Last EDR Contact: 05/01/2019
Number of Days to Update: 15	Next Scheduled EDR Contact: 08/12/2019
	Data Release Frequency: Quarterly

### PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2017	Source: Department of Environmental Protection
Date Data Arrived at EDR: 10/23/2018	Telephone: 717-783-8990
Date Made Active in Reports: 11/27/2018	Last EDR Contact: 04/15/2019
Number of Days to Update: 35	Next Scheduled EDR Contact: 07/29/2019
	Data Release Frequency: Annually

### RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2017	Source: Department of Environmental Management
Date Data Arrived at EDR: 02/23/2018	Telephone: 401-222-2797
Date Made Active in Reports: 04/09/2018	Last EDR Contact: 05/17/2019
Number of Days to Update: 45	Next Scheduled EDR Contact: 09/02/2019
	Data Release Frequency: Annually

### WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2017	Source: Department of Natural Resources
Date Data Arrived at EDR: 06/15/2018	Telephone: N/A
Date Made Active in Reports: 07/09/2018	Last EDR Contact: 03/11/2019
Number of Days to Update: 24	Next Scheduled EDR Contact: 06/24/2019
	Data Release Frequency: Annually

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### Oil/Gas Pipelines

Source: PennWell Corporation  
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

### Electric Power Transmission Line Data

Source: PennWell Corporation  
This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

**Sensitive Receptors:** There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

### AHA Hospitals:

Source: American Hospital Association, Inc.  
Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

### Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services  
Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

### Nursing Homes

Source: National Institutes of Health  
Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

### Public Schools

Source: National Center for Education Statistics  
Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

### Private Schools

Source: National Center for Education Statistics  
Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

### Daycare Centers: Licensed Facilities

Source: Department of Social Services  
Telephone: 916-657-4041

**Flood Zone Data:** This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA  
Telephone: 877-336-2627  
Date of Government Version: 2003, 2015

**NWI:** National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

### State Wetlands Data: Wetland Inventory

Source: Department of Fish and Wildlife  
Telephone: 916-445-0411

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Current USGS 7.5 Minute Topographic Map  
Source: U.S. Geological Survey

## STREET AND ADDRESS INFORMATION

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## GEOCHECK<sup>®</sup> - PHYSICAL SETTING SOURCE ADDENDUM

### TARGET PROPERTY ADDRESS

UNION CITY STATION EAST PROJECT  
DECOTO ROAD AND 7TH STREET  
UNION CITY, CA 94587

### TARGET PROPERTY COORDINATES

Latitude (North): 37.596153 - 37° 35' 46.15"  
Longitude (West): 122.016004 - 122° 0' 57.61"  
Universal Transverse Mercator: Zone 10  
UTM X (Meters): 586867.1  
UTM Y (Meters): 4161259.2  
Elevation: 66 ft. above sea level

### USGS TOPOGRAPHIC MAP

Target Property Map: 5641108 NEWARK, CA  
Version Date: 2012  
  
Southeast Map: 5640408 NILES, CA  
Version Date: 2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

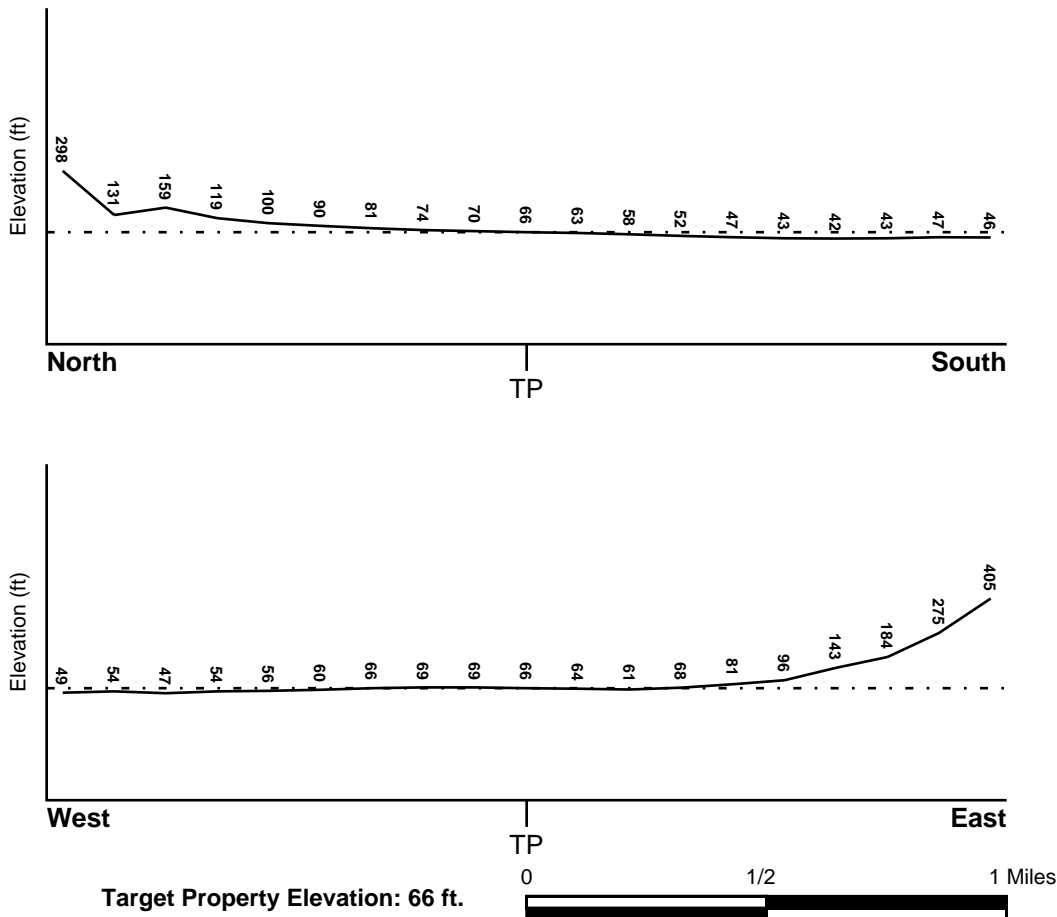
## TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

## TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General SSE

## SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.



# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

## **FEMA FLOOD ZONE**

<u>Flood Plain Panel at Target Property</u>	<u>FEMA Source Type</u>
06001C0432G	FEMA FIRM Flood data
<u>Additional Panels in search area:</u>	<u>FEMA Source Type</u>
06001C0431G	FEMA FIRM Flood data
06001C0455G	FEMA FIRM Flood data
06001C0433G	FEMA FIRM Flood data
06001C0434G	FEMA FIRM Flood data

## **NATIONAL WETLAND INVENTORY**

<u>NWI Quad at Target Property</u>	<u>NWI Electronic Data Coverage</u>
NEWARK	YES - refer to the Overview Map and Detail Map

## HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

### ***Site-Specific Hydrogeological Data\*:***

Search Radius:	1.25 miles
Location Relative to TP:	1/2 - 1 Mile SSE
Site Name:	Pacific States Steel
Site EPA ID Number:	CAD980363030
Groundwater Flow Direction:	NOT AVAILABLE.
Inferred Depth to Water:	42 feet.
Hydraulic Connection:	Three interconnected aquifers underlie the area within two miles of the site.
Sole Source Aquifer:	No information about a sole source aquifer is available
Data Quality:	Information is inferred in the CERCLIS investigation report(s)

## **AQUIFLOW®**

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
---------------	-------------------------	-------------------------------------------

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
2	1/4 - 1/2 Mile SW	SE
5	1/4 - 1/2 Mile SE	Not Reported
B6	1/4 - 1/2 Mile West	SW
B7	1/4 - 1/2 Mile West	S
C8	1/4 - 1/2 Mile North	Not Reported
C9	1/4 - 1/2 Mile North	SE
D10	1/2 - 1 Mile NNW	SW
D11	1/2 - 1 Mile NNW	SW
D12	1/2 - 1 Mile NNW	SW, NW
D13	1/2 - 1 Mile NNW	NNW
E14	1/2 - 1 Mile SSW	E
E15	1/2 - 1 Mile SSW	SW, SSW
16	1/2 - 1 Mile NNW	Varies
17	1/2 - 1 Mile South	W to SW
F26	1/2 - 1 Mile West	W
27	1/2 - 1 Mile NW	NE
28	1/2 - 1 Mile NNW	SSW
1G	1/2 - 1 Mile NNW	SSW
2G	1/2 - 1 Mile NW	NE
3G	1/2 - 1 Mile NNW	Varies
4G	1/2 - 1 Mile NNW	NNW
5G	1/2 - 1 Mile NNW	SW, NW
6G	1/2 - 1 Mile NNW	SW
7G	1/2 - 1 Mile NNW	SW
8G	1/4 - 1/2 Mile North	SE
9G	1/4 - 1/2 Mile North	Not Reported
10G	1/4 - 1/2 Mile West	SW
11G	1/4 - 1/2 Mile West	S
12G	1/2 - 1 Mile West	W
13G	1/4 - 1/2 Mile SE	Not Reported
14G	1/4 - 1/2 Mile SW	SE
15G	1/2 - 1 Mile SSW	E
16G	1/2 - 1 Mile SSW	SW, SSW
17G	1/2 - 1 Mile South	W to SW

For additional site information, refer to Physical Setting Source Map Findings.

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

### GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

### GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

#### **ROCK STRATIGRAPHIC UNIT**

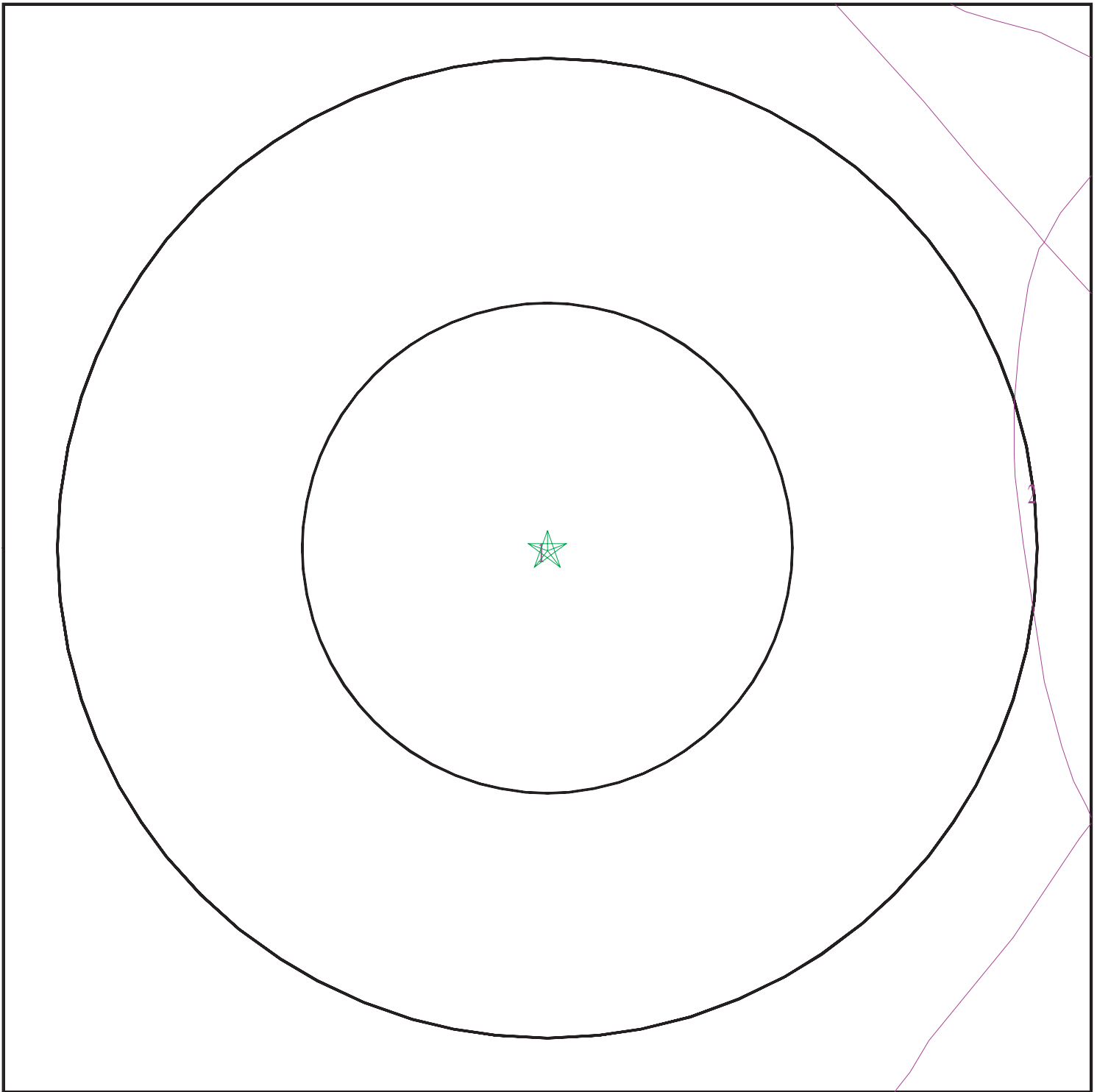
Era:	Cenozoic
System:	Quaternary
Series:	Quaternary
Code:	Q ( <i>decoded above as Era, System &amp; Series</i> )

#### **GEOLOGIC AGE IDENTIFICATION**

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

# SSURGO SOIL MAP - 5661694.2s



- ★ Target Property
- ∩ SSURGO Soil
- ∩ Water



SITE NAME: Union City Station East Project  
ADDRESS: Decoto Road and 7th Street  
Union City CA 94587  
LAT/LONG: 37.596153 / 122.016004

CLIENT: ICF International  
CONTACT: Mario Barrera  
INQUIRY #: 5661694.2s  
DATE: May 23, 2019 11:35 am

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

### Soil Map ID: 1

Soil Component Name: Rincon

Soil Surface Texture: clay loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	16 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 4 Min: 1.4	Max: 8.4 Min: 7.4
2	16 inches	51 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 4 Min: 1.4	Max: 8.4 Min: 7.4
3	51 inches	59 inches	stratified sandy loam to clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 4 Min: 1.4	Max: 8.4 Min: 7.4

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

**Soil Map ID: 2**

Soil Component Name: Danville

Soil Surface Texture: silty clay loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	20 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 8.4 Min: 6.6
2	20 inches	53 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 8.4 Min: 6.6
3	53 inches	79 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 8.4 Min: 6.6

**LOCAL / REGIONAL WATER AGENCY RECORDS**

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 0.001 miles
State Database	1.000

## **FEDERAL USGS WELL INFORMATION**

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
1	USGS40000183980	0 - 1/8 Mile SW
F18	USGS40000183986	1/2 - 1 Mile West
F19	USGS40000183985	1/2 - 1 Mile West
F20	USGS40000183984	1/2 - 1 Mile West
F21	USGS40000183983	1/2 - 1 Mile West

## **FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION**

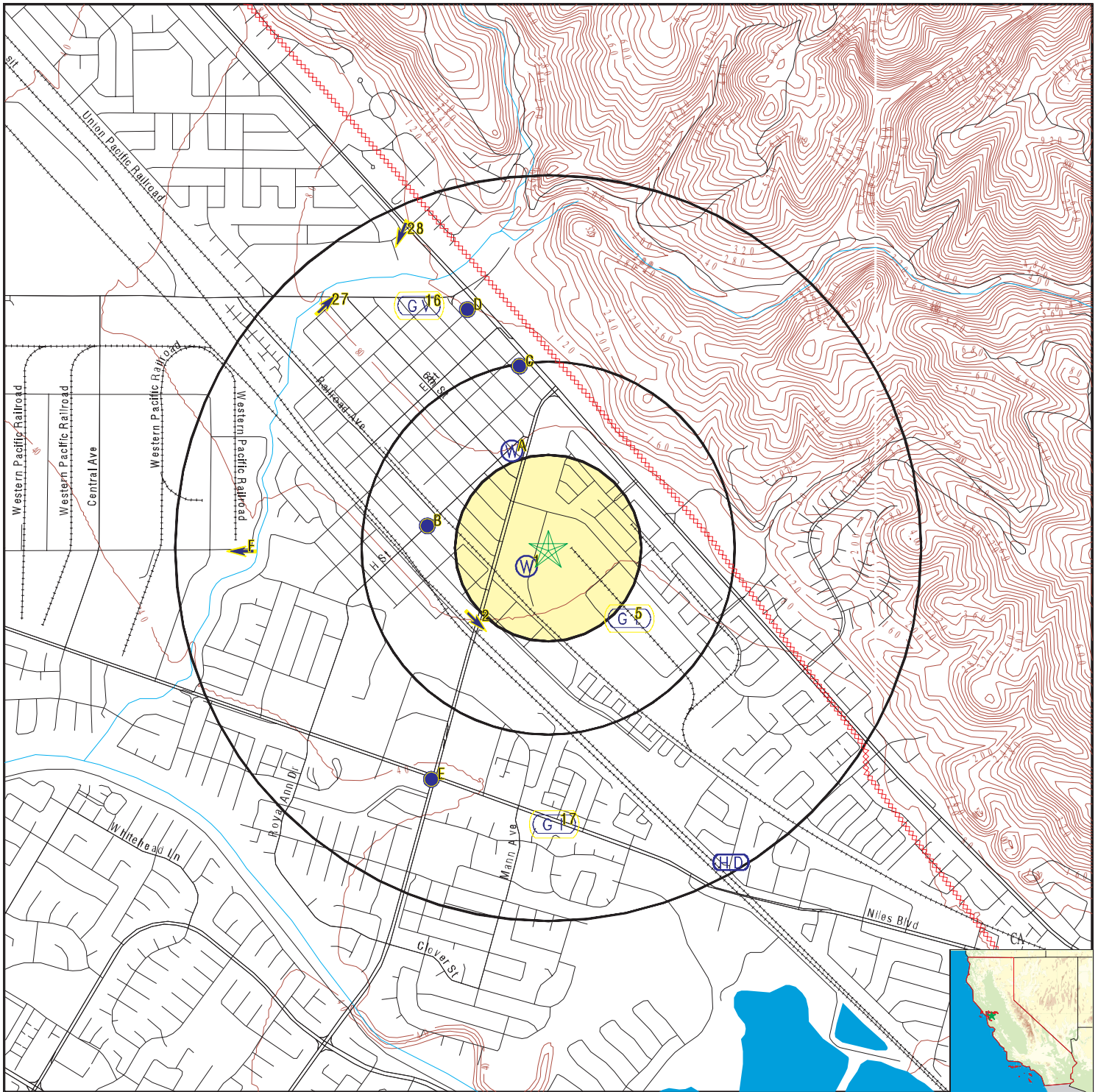
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No PWS System Found		

Note: PWS System location is not always the same as well location.

## **STATE DATABASE WELL INFORMATION**

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
A3	4744	1/4 - 1/2 Mile NNW
A4	4745	1/4 - 1/2 Mile NNW
F22	CADWR8000035299	1/2 - 1 Mile West
F23	CADWR8000035300	1/2 - 1 Mile West
F24	CADWR8000035297	1/2 - 1 Mile West
F25	CADWR8000035298	1/2 - 1 Mile West

# PHYSICAL SETTING SOURCE MAP - 5661694.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells



SITE NAME: Union City Station East Project  
 ADDRESS: Decoto Road and 7th Street  
 Union City CA 94587  
 LAT/LONG: 37.596153 / 122.016004

CLIENT: ICF International  
 CONTACT: Mario Barrera  
 INQUIRY #: 5661694.2s  
 DATE: May 23, 2019 11:35 am



# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**1**  
**SW**  
**0 - 1/8 Mile**  
**Higher**

**FED USGS      USGS40000183980**

Organization ID:	USGS-CA	Type:	Well
Organization Name:	USGS California Water Science Center	HUC:	Not Reported
Monitor Location:	004S001W07P004M	Drainage Area Units:	Not Reported
Description:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Drainage Area:	Not Reported	Aquifer Type:	Not Reported
Contrib Drainage Area:	Not Reported	Well Depth:	476
Aquifer:	California Coastal Basin aquifers	Well Hole Depth:	476
Formation Type:	Not Reported		
Construction Date:	19661107		
Well Depth Units:	ft		
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	2	Level reading date:	2002-11-13
Feet below surface:	69.28	Feet to sea level:	Not Reported
Note:	Not Reported		

Level reading date:	2002-03-11	Feet below surface:	61.50
Feet to sea level:	Not Reported	Note:	Not Reported

**2**  
**SW**  
**1/4 - 1/2 Mile**  
**Lower**

Site ID:	0218	<b>AQUIFLOW      69564</b>
Groundwater Flow:	SE	
Shallow Water Depth:	37'	
Deep Water Depth:	44'	
Average Water Depth:	Not Reported	
Date:	04/01/1993	

**A3**  
**NNW**  
**1/4 - 1/2 Mile**  
**Higher**

**CA WELLS      4744**

Seq:	4744	Prim sta c:	04S/01W-07G03 M
Frds no:	0110001031	County:	01
District:	04	User id:	ENG
System no:	0110001	Water type:	G
Source nam:	TANK LANE - DESTROYED	Station ty:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Latitude:	373600.0	Longitude:	1220100.0
Precision:	4	Status:	DS
Comment 1:	NO POWER - FIRE STANDBY ONLY. HIGH MANGANESE.	Comment 3:	Not Reported
Comment 2:	Not Reported	Comment 5:	Not Reported
Comment 4:	Not Reported	Comment 7:	Not Reported
Comment 6:	Not Reported		
System no:	0110001	System nam:	ALAMEDA COUNTY WATER DISTRICT
Hqname:	Not Reported	Address:	43885 S. GRIMMER BLVD.
City:	FREMONT	State:	CA
Zip:	94538	Zip ext:	Not Reported
Pop serv:	271000	Connection:	69571
Area serve:	FREMONT NEWARK,UNION CITY		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**A4**  
**NNW**  
**1/4 - 1/2 Mile**  
**Higher**

**CA WELLS      4745**

Seq:	4745	Prim sta c:	04S/01W-07N01 M
Frds no:	0110001003	County:	01
District:	04	User id:	ENG
System no:	0110001	Water type:	G
Source nam:	14TH STREET - DESTROYED	Station ty:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Latitude:	373600.0	Longitude:	1220100.0
Precision:	4	Status:	DS
Comment 1:	DESTROYED IN 1980 - HIGH NO3.	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		
System no:	0110001	System nam:	ALAMEDA COUNTY WATER DISTRICT
Hqname:	Not Reported	Address:	43885 S. GRIMMER BLVD.
City:	FREMONT	State:	CA
Zip:	94538	Zip ext:	Not Reported
Pop serv:	271000	Connection:	69571
Area serve:	FREMONT NEWARK,UNION CITY		

**5**  
**SE**  
**1/4 - 1/2 Mile**  
**Lower**

Site ID:	0167	<b>AQUIFLOW      69562</b>
Groundwater Flow:	Not Reported	
Shallow Water Depth:	Not Reported	
Deep Water Depth:	Not Reported	
Average Water Depth:	> 45'	
Date:	07/26/1996	

**B6**  
**West**  
**1/4 - 1/2 Mile**  
**Higher**

Site ID:	0146	<b>AQUIFLOW      50737</b>
Groundwater Flow:	SW	
Shallow Water Depth:	Not Reported	
Deep Water Depth:	Not Reported	
Average Water Depth:	45	
Date:	04/18/1994	

**B7**  
**West**  
**1/4 - 1/2 Mile**  
**Higher**

Site ID:	Not Reported	<b>AQUIFLOW      50739</b>
Groundwater Flow:	S	
Shallow Water Depth:	Not Reported	
Deep Water Depth:	Not Reported	
Average Water Depth:	41.75	
Date:	09/21/1995	

**C8**  
**North**  
**1/4 - 1/2 Mile**  
**Higher**

Site ID:	0429	<b>AQUIFLOW      50742</b>
Groundwater Flow:	Not Reported	
Shallow Water Depth:	64.81	
Deep Water Depth:	65.77	
Average Water Depth:	Not Reported	
Date:	06/03/1998	

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID	Direction	Distance	Elevation	Database	EDR ID Number
<b>C9</b>	North	1/4 - 1/2 Mile	Higher	<b>AQUIFLOW</b>	<b>69237</b>
	Site ID:	0156			
	Groundwater Flow:	SE			
	Shallow Water Depth:	40.86			
	Deep Water Depth:	55.96			
	Average Water Depth:	Not Reported			
	Date:	05/1999			
<b>D10</b>	NNW	1/2 - 1 Mile	Higher	<b>AQUIFLOW</b>	<b>69540</b>
	Site ID:	0339			
	Groundwater Flow:	SW			
	Shallow Water Depth:	Not Reported			
	Deep Water Depth:	Not Reported			
	Average Water Depth:	50'			
	Date:	06/18/1996			
<b>D11</b>	NNW	1/2 - 1 Mile	Higher	<b>AQUIFLOW</b>	<b>69561</b>
	Site ID:	0339			
	Groundwater Flow:	SW			
	Shallow Water Depth:	Not Reported			
	Deep Water Depth:	Not Reported			
	Average Water Depth:	50'			
	Date:	06/18/1996			
<b>D12</b>	NNW	1/2 - 1 Mile	Higher	<b>AQUIFLOW</b>	<b>69233</b>
	Site ID:	0224			
	Groundwater Flow:	SW, NW			
	Shallow Water Depth:	Not Reported			
	Deep Water Depth:	Not Reported			
	Average Water Depth:	Not Reported			
	Date:	03/17/1999			
<b>D13</b>	NNW	1/2 - 1 Mile	Higher	<b>AQUIFLOW</b>	<b>69264</b>
	Site ID:	0095			
	Groundwater Flow:	NNW			
	Shallow Water Depth:	Not Reported			
	Deep Water Depth:	Not Reported			
	Average Water Depth:	47.82			
	Date:	05/23/1995			
<b>E14</b>	SSW	1/2 - 1 Mile	Lower	<b>AQUIFLOW</b>	<b>50752</b>
	Site ID:	0034			
	Groundwater Flow:	E			
	Shallow Water Depth:	0.35			
	Deep Water Depth:	37.12			
	Average Water Depth:	Not Reported			
	Date:	02/17/1998			
<b>E15</b>	SSW	1/2 - 1 Mile	Lower	<b>AQUIFLOW</b>	<b>69229</b>
	Site ID:	0098			
	Groundwater Flow:	SW, SSW			
	Shallow Water Depth:	Not Reported			
	Deep Water Depth:	Not Reported			
	Average Water Depth:	Not Reported			
	Date:	06/16/1999			

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**16**  
**NNW**  
**1/2 - 1 Mile**  
**Higher**

Site ID:	0165		
Groundwater Flow:	Varies	<b>AQUIFLOW</b>	<b>50259</b>
Shallow Water Depth:	44		
Deep Water Depth:	47		
Average Water Depth:	Not Reported		
Date:	08/21/1992		

**17**  
**South**  
**1/2 - 1 Mile**  
**Lower**

Site ID:	0173		
Groundwater Flow:	W to SW	<b>AQUIFLOW</b>	<b>69252</b>
Shallow Water Depth:	18.05		
Deep Water Depth:	35.33		
Average Water Depth:	Not Reported		
Date:	12/29/1995		

**F18**  
**West**  
**1/2 - 1 Mile**  
**Lower**

**FED USGS      USGS40000183986**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	004S002W12K011M	Type:	Well
Description:	Not Reported	HUC:	Not Reported
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Confined single aquifer
Construction Date:	20020912	Well Depth:	150
Well Depth Units:	ft	Well Hole Depth:	164
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	2002-11-05
Feet below surface:	40.49	Feet to sea level:	Not Reported
Note:	Not Reported		

**F19**  
**West**  
**1/2 - 1 Mile**  
**Lower**

**FED USGS      USGS40000183985**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	004S002W12K010M	Type:	Well
Description:	Not Reported	HUC:	Not Reported
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Confined single aquifer
Construction Date:	20020910	Well Depth:	240
Well Depth Units:	ft	Well Hole Depth:	250
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	2002-11-05
Feet below surface:	54.79	Feet to sea level:	Not Reported

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Note: Not Reported

**F20**  
**West**  
**1/2 - 1 Mile**  
**Lower**

**FED USGS      USGS40000183984**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	004S002W12K009M	Type:	Well
Description:	Not Reported	HUC:	Not Reported
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Confined single aquifer
Construction Date:	20020907	Well Depth:	310
Well Depth Units:	ft	Well Hole Depth:	320
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	2002-11-05
Feet below surface:	56.10	Feet to sea level:	Not Reported
Note:	Not Reported		

**F21**  
**West**  
**1/2 - 1 Mile**  
**Lower**

**FED USGS      USGS40000183983**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	004S002W12K008M	Type:	Well
Description:	Not Reported	HUC:	Not Reported
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	20020904	Well Depth:	510
Well Depth Units:	ft	Well Hole Depth:	677
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	2002-11-05
Feet below surface:	56.70	Feet to sea level:	Not Reported
Note:	Not Reported		

**F22**  
**West**  
**1/2 - 1 Mile**  
**Lower**

**CA WELLS      CADWR8000035299**

State Well #:	04S02W12K009M	Station ID:	47040
Well Name:	4S/2W-12K009	Well Use:	Observation
Well Type:	Single Well	Well Depth:	320
Basin Name:	Niles Cone	Well Completion Rpt #:	792976

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**F23**  
**West**  
**1/2 - 1 Mile**  
**Lower**

**CA WELLS      CADWR8000035300**

State Well #:	04S02W12K008M	Station ID:	47258
Well Name:	4S/2W-12K008	Well Use:	Observation
Well Type:	Single Well	Well Depth:	525
Basin Name:	Niles Cone	Well Completion Rpt #:	792977

**F24**  
**West**  
**1/2 - 1 Mile**  
**Lower**

**CA WELLS      CADWR8000035297**

State Well #:	04S02W12K011M	Station ID:	47260
Well Name:	4S/2W-12K011	Well Use:	Observation
Well Type:	Single Well	Well Depth:	164
Basin Name:	Niles Cone	Well Completion Rpt #:	792974

**F25**  
**West**  
**1/2 - 1 Mile**  
**Lower**

**CA WELLS      CADWR8000035298**

State Well #:	04S02W12K010M	Station ID:	47369
Well Name:	4S/2W-12K010	Well Use:	Observation
Well Type:	Single Well	Well Depth:	250
Basin Name:	Niles Cone	Well Completion Rpt #:	792975

**F26**  
**West**  
**1/2 - 1 Mile**  
**Lower**

**AQUIFLOW      69248**

Site ID:	0152
Groundwater Flow:	W
Shallow Water Depth:	Not Reported
Deep Water Depth:	Not Reported
Average Water Depth:	Not Reported
Date:	07/31/1998

**27**  
**NW**  
**1/2 - 1 Mile**  
**Higher**

**AQUIFLOW      69543**

Site ID:	0604
Groundwater Flow:	NE
Shallow Water Depth:	29.23
Deep Water Depth:	38.58
Average Water Depth:	Not Reported
Date:	06/12/1998

**28**  
**NNW**  
**1/2 - 1 Mile**  
**Higher**

**AQUIFLOW      69246**

Site ID:	0169
Groundwater Flow:	SSW
Shallow Water Depth:	Not Reported
Deep Water Depth:	Not Reported
Average Water Depth:	61'
Date:	01/05/1998

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation			Database	EDR ID Number
<b>1G</b> <b>NNW</b> <b>1/2 - 1 Mile</b> <b>Lower</b>	Site ID:	0169	<b>AQUIFLOW</b>	<b>69246</b>
	Groundwater Flow:	SSW		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	61'		
Date:	01/05/1998			
<b>2G</b> <b>NW</b> <b>1/2 - 1 Mile</b> <b>Lower</b>	Site ID:	0604	<b>AQUIFLOW</b>	<b>69543</b>
	Groundwater Flow:	NE		
	Shallow Water Depth:	29.23		
	Deep Water Depth:	38.58		
	Average Water Depth:	Not Reported		
Date:	06/12/1998			
<b>3G</b> <b>NNW</b> <b>1/2 - 1 Mile</b> <b>Lower</b>	Site ID:	0165	<b>AQUIFLOW</b>	<b>50259</b>
	Groundwater Flow:	Varies		
	Shallow Water Depth:	44		
	Deep Water Depth:	47		
	Average Water Depth:	Not Reported		
Date:	08/21/1992			
<b>4G</b> <b>NNW</b> <b>1/2 - 1 Mile</b> <b>Lower</b>	Site ID:	0095	<b>AQUIFLOW</b>	<b>69264</b>
	Groundwater Flow:	NNW		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	47.82		
Date:	05/23/1995			
<b>5G</b> <b>NNW</b> <b>1/2 - 1 Mile</b> <b>Lower</b>	Site ID:	0224	<b>AQUIFLOW</b>	<b>69233</b>
	Groundwater Flow:	SW, NW		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	Not Reported		
Date:	03/17/1999			
<b>6G</b> <b>NNW</b> <b>1/2 - 1 Mile</b> <b>Lower</b>	Site ID:	0339	<b>AQUIFLOW</b>	<b>69540</b>
	Groundwater Flow:	SW		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	50'		
Date:	06/18/1996			
<b>7G</b> <b>NNW</b> <b>1/2 - 1 Mile</b> <b>Lower</b>	Site ID:	0339	<b>AQUIFLOW</b>	<b>69561</b>
	Groundwater Flow:	SW		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	50'		
Date:	06/18/1996			

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID	Direction	Distance	Elevation	Database	EDR ID Number
<b>8G</b>	North	1/4 - 1/2 Mile	Lower	<b>AQUIFLOW</b>	<b>69237</b>
	Site ID:	0156			
	Groundwater Flow:	SE			
	Shallow Water Depth:	40.86			
	Deep Water Depth:	55.96			
	Average Water Depth:	Not Reported			
	Date:	05/1999			
<b>9G</b>	North	1/4 - 1/2 Mile	Lower	<b>AQUIFLOW</b>	<b>50742</b>
	Site ID:	0429			
	Groundwater Flow:	Not Reported			
	Shallow Water Depth:	64.81			
	Deep Water Depth:	65.77			
	Average Water Depth:	Not Reported			
	Date:	06/03/1998			
<b>10G</b>	West	1/4 - 1/2 Mile	Lower	<b>AQUIFLOW</b>	<b>50737</b>
	Site ID:	0146			
	Groundwater Flow:	SW			
	Shallow Water Depth:	Not Reported			
	Deep Water Depth:	Not Reported			
	Average Water Depth:	45			
	Date:	04/18/1994			
<b>11G</b>	West	1/4 - 1/2 Mile	Lower	<b>AQUIFLOW</b>	<b>50739</b>
	Site ID:	Not Reported			
	Groundwater Flow:	S			
	Shallow Water Depth:	Not Reported			
	Deep Water Depth:	Not Reported			
	Average Water Depth:	41.75			
	Date:	09/21/1995			
<b>12G</b>	West	1/2 - 1 Mile	Lower	<b>AQUIFLOW</b>	<b>69248</b>
	Site ID:	0152			
	Groundwater Flow:	W			
	Shallow Water Depth:	Not Reported			
	Deep Water Depth:	Not Reported			
	Average Water Depth:	Not Reported			
	Date:	07/31/1998			
<b>13G</b>	SE	1/4 - 1/2 Mile	Lower	<b>AQUIFLOW</b>	<b>69562</b>
	Site ID:	0167			
	Groundwater Flow:	Not Reported			
	Shallow Water Depth:	Not Reported			
	Deep Water Depth:	Not Reported			
	Average Water Depth:	> 45'			
	Date:	07/26/1996			
<b>14G</b>	SW	1/4 - 1/2 Mile	Lower	<b>AQUIFLOW</b>	<b>69564</b>
	Site ID:	0218			
	Groundwater Flow:	SE			
	Shallow Water Depth:	37'			
	Deep Water Depth:	44'			
	Average Water Depth:	Not Reported			
	Date:	04/01/1993			



## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

<b>15G</b> <b>SSW</b> <b>1/2 - 1 Mile</b> <b>Lower</b>	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	0034 E 0.35 37.12 Not Reported 02/17/1998	<b>AQUIFLOW</b>	<b>50752</b>
-----------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------	----------------------------------------------------------	-----------------	--------------

<b>16G</b> <b>SSW</b> <b>1/2 - 1 Mile</b> <b>Lower</b>	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	0098 SW, SSW Not Reported Not Reported Not Reported 06/16/1999	<b>AQUIFLOW</b>	<b>69229</b>
-----------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------	-----------------	--------------

<b>17G</b> <b>South</b> <b>1/2 - 1 Mile</b> <b>Lower</b>	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	0173 W to SW 18.05 35.33 Not Reported 12/29/1995	<b>AQUIFLOW</b>	<b>69252</b>
-------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------	-----------------	--------------

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

State Database: CA Radon

### Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
94587	17	0

Federal EPA Radon Zone for ALAMEDA County: 2

- Note: Zone 1 indoor average level > 4 pCi/L.  
 : Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.  
 : Zone 3 indoor average level < 2 pCi/L.

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Federal Area Radon Information for Zip Code: 94587

Number of sites tested: 1

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.700 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## TOPOGRAPHIC INFORMATION

### USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

### Current USGS 7.5 Minute Topographic Map

Source: U.S. Geological Survey

## HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

### State Wetlands Data: Wetland Inventory

Source: Department of Fish and Wildlife

Telephone: 916-445-0411

## HYDROGEOLOGIC INFORMATION

### AQUIFLOW<sup>R</sup> Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

## GEOLOGIC INFORMATION

### Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

### STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

### SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## LOCAL / REGIONAL WATER AGENCY RECORDS

### FEDERAL WATER WELLS

#### PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

#### PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

#### USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

### STATE RECORDS

#### Water Well Database

Source: Department of Water Resources

Telephone: 916-651-9648

#### California Drinking Water Quality Database

Source: Department of Public Health

Telephone: 916-324-2319

The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

## OTHER STATE DATABASE INFORMATION

#### California Oil and Gas Well Locations

Source: Department of Conservation

Telephone: 916-323-1779

Oil and Gas well locations in the state.

#### California Earthquake Fault Lines

Source: California Division of Mines and Geology

The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

### RADON

#### State Database: CA Radon

Source: Department of Public Health

Telephone: 916-210-8558

Radon Database for California

#### Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

## PHYSICAL SETTING SOURCE RECORDS SEARCHED

### EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

### OTHER

Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

### STREET AND ADDRESS INFORMATION

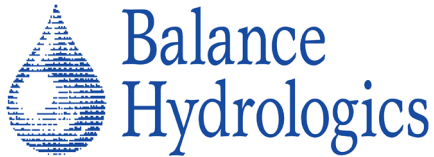
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**Appendix 4.8-1**  
**Updated Summary of Stormwater Infrastructure Modeling**







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www.balancehydro.com • email: office@balancehydro.com

September 1, 2020

Mr. Gordon Zanin, P.E.  
Carlson, Barbee & Gibson, Inc.  
2633 Camino Ramon #350  
San Ramon, California 94583

**RE: Updated Summary of Stormwater Infrastructure Modeling for the Bradford Way Project,  
City of Union City**

Dear Mr. Zanin:

I'd like to thank you again for providing Balance Hydrologics the opportunity to assist with the modeling of stormwater management infrastructure at the proposed Bradford Way Project in the City of Union City. As you are aware, we have carried out numerous such studies for similar projects throughout the East Bay area, and we welcome the opportunity to apply that learned knowledge to your project site. Our experience allows us to identify, select, and implement practical infrastructure that ensures adherence to local, municipal, and state water-quality and flow control standards.

To that end, Balance staff completed a series of hydrologic modeling runs consistent with the guidance set forth by the City, the Alameda County Clean Water Program, and the Alameda County Flood Control and Water Conservation District ("Flood Control"). Those modeling runs were summarized in a letter report prepared in February 2020. Since that time, there have been several minor modifications to the site drainage plan. Additionally, the previous modeling work anticipated that it would be necessary to increase the size of the existing storm drain line in Zwissig Way that will convey runoff from the largest portion of the project to the Flood Control Zone 5 Line M-3 channel. That storm drain line consists of 18-inch diameter pipe at the connection point (intersection of Bradford Way and Zwissig Way). To limit the extent of off-site improvements associated with the project, it is now preferred to avoid the need to upsize the existing off-site infrastructure storm drain lines.

These revisions to the on-site drainage plan and desire to avoid upsizing the existing storm drain lines has necessitated an update to the earlier hydrologic modeling to re-optimize the peak flow control measures. Additionally, hydraulic modeling has now been completed to assess whether the reduced peak flow rates can be conveyed by the existing Zwissig Way storm drain without modification. This updated letter report summarizes the work undertaken in this regard, starting with the project setting and then moving to a discussion of the modeling approach and pertinent results.

### ***Project Setting and Modeling Objectives***

The proposed project will convert a mix of existing industrial and fallow lands totaling approximately 27 acres into a relatively high-density residential project. Runoff from the entire site currently flows to Flood Control's Zone 5 Line M drainage channel system, which continues for approximately 1.35 miles to the south and west before discharging into the major Alameda Creek flood control channel at point just west of the end of Perry Road. Overall, the site has very low relief, with maximum pre-project ground elevations on the order of 70 feet and minimum elevations on the order of 59 feet per topographic information provided by CBG.

The portions of the site previously dedicated to industrial uses are characterized by high existing impervious cover, a factor that directly impacts the sizing of stormwater management infrastructure at the site. Additionally, the site is underlain by a single soil type, Rincon clay loam, per soil mapping information prepared by the Natural Resources Conservation Service (see **Appendix A**). This soil type is classified as a Hydrologic Soil Group C soil, indicative of low infiltration soils that are prone to high rates of runoff.

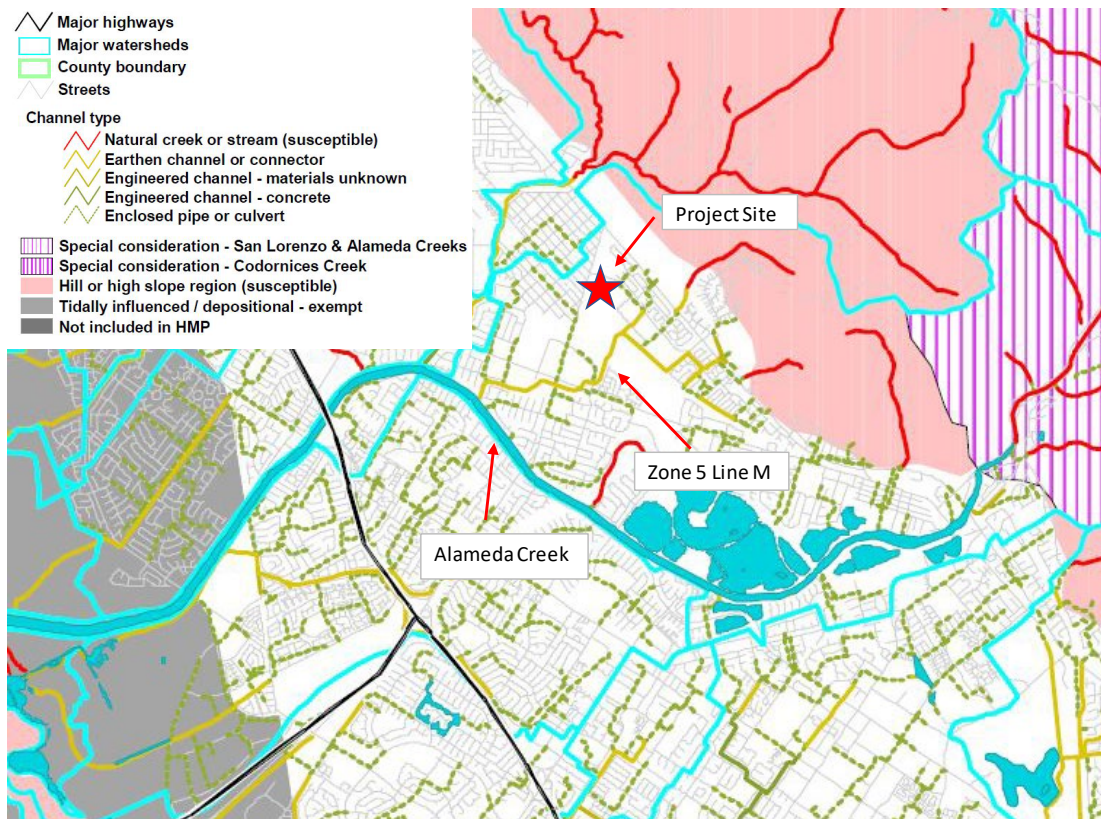
Projects in this portion of Alameda County typically need to address three components of stormwater management: runoff water quality, potential flow-duration control (for hydromodification management), and peak flow control (for flood control). Coordination with your office confirms that the first of these, water-quality management, is being handled by your staff using various treatment control measures (TCMs) including distributed bioretention facilities. For that reason, our modeling focuses on the latter two objectives. The first being the need for flow-duration controls to demonstrate compliance with management objectives set forth in the Municipal Regional Permit issued by the San Francisco Bay Regional Water Quality Control Board and to which the City of Union City is a co-signatory. **Figure 1** below shows that the project site will likely need to comply with the flow-duration control guidelines even though all the downstream channels are engineered flood control facilities and not prone to adverse impacts from changes in runoff hydrographs. In this sense, the project can be viewed as taking an appropriately conservative approach to flow-duration controls by avoiding negative impacts for runoff rates ranging from 10 percent of the pre-project 2-year flow to the pre-project 10-year flow.

Secondly, we address peak flow control as it relates to flood control. For projects, and thus drainage areas, of this size Flood Control guidelines call for consideration of the 15-year and 100-year design storms. Where stormwater detention is used to control peak flow rates the same guidelines require use of a 24-hour duration design storm.<sup>1</sup> Although mapping prepared by Flood Control shows that the project site was programmed for industrial land uses (high peak flow coefficient of 0.8<sup>2</sup>), the modeling presented herein confirms that on-site detention can be provided at a level that reduces peak flow rates to below the pre-project land use levels; therefore, avoiding adverse impacts to the flood control channels at and downstream from the site.

---

<sup>1</sup> Alameda County Hydrology and Hydraulics Manual, 2018 edition.

<sup>2</sup> Zone No. 5 Project Lines M-3 M-4 M-5 M-7 Drainage Area Map, File No. MB-287, December 1989.



**Figure 1. Excerpt from the Hydromodification Susceptibility Map with project location**

It should also be noted that some projects need to consider measures related to accommodating regional flood hazards represented on Flood Insurance Rate Maps prepared by the Federal Emergency Management Agency. Our review of the pertinent mapping shows that the project site is not located in a Special Flood Hazard Area<sup>3</sup>.

### ***Modeling Approach***

Three separate hydrologic models were utilized to address the flow control requirements cited above. The Bay Area Hydrology Model (BAHM) was used to assess flow-duration compliance as per the Alameda County C.3 Technical Guidance. The U.S. Army Corps of Engineers HEC-HMS platform was used for peak flow control modelling with parameterization strictly following the guidelines in the County H&H Manual. Finally, the XPStorm software package was used for the detailed hydraulic modeling of the Zwissig Way storm drain line using the output hydrographs from the HEC-HMS modeling.

<sup>3</sup> Flood Insurance Rate Map Panel 06001C0432G, effective date August 3, 2008.

The following assumptions applied to the analyses:

- *Pre-project land use and drainage patterns.* The overall pre-project site was divided into three separate on-site drainage management areas (DMAs) (see **Plate 1**). DMA 1 is essentially completely fallow land that drains via sheet flow toward the Line M channel just outside the figure to the southeast. DMAs 2 and 3 include significant areas of impervious cover and drain into existing storm drain lines in 7<sup>th</sup> Street that discharge to Line M-3 approximately 820 feet southeast of the intersection of 7<sup>th</sup> Street and Bradford Way. There is no “run-on” to the project site, but the local storm drain lines and Line M-3 do handle flow from off-site areas. Therefore, this definition of DMAs is intended to set the basis for assessing runoff to the Line M system from the site itself but should not be construed as representative of the total runoff in the downstream systems.

The project now proposes more extensive improvements along Bradford Way. That, and the need to account for all runoff to the Zwissig Way storm drain line, called for an expansion of the study area to include three additional off-site DMAs.<sup>4</sup> These areas are shown on **Plate 1** as Offsite 1, Offsite 2, and Offsite 3 which in combination represent the runoff from previously developed industrial park areas that flow to the Zwissig Way line.

Parameters used as input to the various hydrologic model are included in **Table 1** below and show that the overall pre-project impervious cover is calculated as 39 percent if both on- and off-site areas are included. Impervious cover from the site itself in the pre-project condition is substantially lower at 28 percent. The controlling longest flow paths for both DMA 1 and DMA 2 are primarily overland flow and, coupled with the low land slope, result in relatively high lag times given the size of the DMAs. Lag times for the much smaller off-site areas with very high impervious cover were set to conservatively low thresholds of 3 and 5 minutes.

- *Post-project land use and drainage patterns.* The post-project drainage plan (see attached **Plate 2**); almost the entire site will drain to a single flow control basin located along the southwest edge of the project (POC1). This basin will then drain into an existing storm drain line located in Zwissig Way that connects to Line M-3 roughly 780 feet southeast of Bradford Way. Post-project DMA 2 will be much smaller in size and will drain to the same point of concentration as in the pre-project case. Overall, the area draining to the 7<sup>th</sup> Street storm drain system will be reduced from the pre-project 17.8 acres to only 1.4 acres in the post-project case. This also means that the preponderance of runoff from the site will join the Line M-3 system downstream of the existing points of connection reducing flows in some of the existing off-site drainage infrastructure.

As shown in **Table 1**, the overall post-project impervious cover will increase to 80 percent (78 percent from the on-site areas), yet the more efficient storm drain system will result in lower time lag values than in the pre-project.

---

<sup>4</sup> The off-site areas were not included in the BAHM modeling of hydromodification controls since no land use changes are proposed in those areas.

**Table 1. Summary of Project Land Cover and Hydrologic Parameters**

Pre-project									
DMA	Area (acres)	Impervious		Pervious (acres)	Loss (in/hr)	Flow Path (miles)		Slope (ft/mile)	Lag (hours)
		(acres)	(%)			(Longest)	(Centroid)		
DMA 1	8.86	0.00	0%	8.86	0.19	0.214	0.089	45	0.301
DMA 2	9.65	1.88	19%	7.77	0.19	0.241	0.134	41	0.376
DMA 3	8.66	6.08	70%	2.58	0.25	0.244	0.114	13	0.113
Offsite 1	0.84	0.75	89%	0.09	0.19	---	---	---	0.047
Offsite 2	2.74	2.33	85%	0.41	0.19	---	---	---	0.080
Offsite 3	2.68	2.58	96%	0.10	0.19	---	---	---	0.080
<b>Total</b>	<b>33.43</b>	<b>13.62</b>	<b>41%</b>	<b>19.81</b>					
Post-project									
DMA 1	24.74	19.21	78%	4.84	0.19	0.314	0.106	36	0.099
DMA 2	2.50	2.10	84%	0.16	0.19	0.119	0.051	12	0.064
Offsite 1	1.05	0.94	90%	0.11	0.19	---	---	---	0.047
Offsite 2	2.46	2.08	85%	0.38	0.19	---	---	---	0.080
Offsite 3	2.68	2.58	96%	0.10	0.19	---	---	---	0.080
<b>Total</b>	<b>33.43</b>	<b>26.91</b>	<b>80%</b>	<b>5.59</b>					

- *Design storms.* Isohyetal mapping prepared by Flood Control shows that the mean annual precipitation at the site is 18.5 inches. Using this value and the pertinent design guidelines gives 24-hour design storm totals of 3.4 inches and 4.6 inches for the 15- and 100-year events respectively.
- *Detention basin.* The proposed stormwater basin will be used to regulate outflow rates from the project site originating in DMA 1. The basin is currently planned to consist of two interconnected portions with a single flow regulation outlet structure at the south end. Storage volume will be sufficient to regulate outflow rates as needed to achieve compliance with the flow-duration and peak flow requirements. DMA 2 (equivalent to the PA 11A portion of the project) will have bioretention areas for water-quality enhancement and hydromodification control, which is viable since there is such a large reduction in drainage area to the existing 7th Street storm drain system in the post-project case.<sup>5</sup> Based on the preliminary grading plans, the DMA 1 stormwater basin will have a total storage volume of just under 4.6 acre-feet, with a

<sup>5</sup> The DMA bioretention area is included in the BAHM modeling, but not in the peak flow modeling to meet Flood Control standards. This is a conservative approach as the basin will modulate peak flow rates from large storms as well. It is simply not necessary to model that effect to show that flows are markedly reduced to the 7th Street storm drain line.

bottom elevation on the order of 51 feet and a top of bank elevation above 60 feet for the southern portion.

### **Results**

The modeling results for the various model runs are included as **Appendix B** for the BAHM model results for hydromodification controls, **Appendix C** for the HEC-HMS results relating to peak flow control and **Appendix D** that shows the XPStorm profile for the 15-year design storm in Zwissig Way.

*Flow-duration control (BAHM modeling).* The main driver for stormwater basin sizing is the need to meet the flow-duration control requirements that apply for hydromodification management. To comply across the full range of flow rates from 10 percent of the 2-year event up to the 10-year event a multiple opening outlet will be needed for the basin (see BAHM modeling, **Appendix A**). Lowest range flows will be controlled by a 4-inch wide by 3.5-inch tall rectangular orifice at the basin bottom; mid-range flows will be controlled by an 14-inch wide by 8-inch tall rectangular orifice with a flowline elevation of 54.0 feet; and, the outlet structure will need an overflow weir with a minimum 16-inch crest length at elevation 57.8.<sup>6</sup>

*Peak flow control (HEC-HMS modeling).* The HEC-HMS results included as **Appendix C** show the result of routing the Flood Control design storms through the proposed stormwater basin. Under pre-project conditions our model predicts peak flow rates for the 15-year, 24-hour design storm under pre-project conditions as 13.2 cfs to the 7th Street storm drain system and 19.3 cfs for the project site as a whole. The peak flow rates are reduced in the post-project case to 2.3 cfs to 7th Street and 9.0 cfs overall. For the 100-year design storm the modeling shows pre-project peak flow rates of 18.5 cfs to 7th Street and 27.0 cfs overall. Those peaks are reduced to 3.2 cfs and 12.3 cfs respectively in the post-project case. The maximum water surface elevation in the basin for the 100-year event is modeled as 58.4 feet, which will allow for at least one foot of freeboard to the basin top of bank.

*Capacity of the Zwissig Way storm drain line.* The profile from the XPStorm model for the existing line in Zwissig Way up to the connection point with the proposed stormwater basin is included as **Appendix D**. The profile shows that the stormwater basin reduces peak flow rates to an extent that the 15-year design flow can be conveyed with ample freeboard along the line. Though not explicitly included in the hydraulic model runs, the remaining freeboard along the Zwissig Way line is a strong indication that the line will be able to handle additional flow if required by future build-out of the vicinity (for example, the currently undeveloped 1B area located directly to the south of Zwissig that presently drains by sheetflow to the southeast.<sup>7</sup>

---

<sup>6</sup> Other orifice dimensions (including round orifices) can work and would be assessed as the project design progresses. Nonetheless, the dimensions cited here show one outlet configuration that will meet the pertinent criteria.

<sup>7</sup> However, we would assume that the 1B area would need to provide hydromodification management and peak flow controls similar to those modeled for this report.

Mr. Gordon Zanin, P.E.  
September 1, 2020  
Page 7

**Closing**

Thank you again for the opportunity to assist with these stormwater management analyses. The modeling prepared for the project shows that compliance with flow-duration and peak flow control requirements can be achieved with a single stormwater basin as proposed. Peak flow rates to the existing 7<sup>th</sup> Street storm drain lines is predicted to decrease from 13.2 cfs to only 2.3 cfs for the 15-year design storm due to reductions in contributing drainage area. Inclusion of the stormwater basin to modulate flows to the Zwissig Way storm drain line yields an overall reduction in peak flow rates to the Zone 5 Line M, avoiding impacts to the off-site system. The modeling predicts a reduction in peak flow to Line M for the 15-year storm from 19.3 cfs in the pre-project case to 9.0 cfs in the post-project condition. For the 100-year design storm peak flow rates to Line M are predicted to decrease from 27.0 cfs to 12.3 cfs.

In fact, the present modeling fully discounts the storage volume in the proposed bioretention facilities that will be distributed throughout the site and including those would undoubtedly show even less impact overall. Additionally, the expanded hydraulic modeling shows that the proposed stormwater basin can discharge to the existing storm drain line in Zwissig Way without the need for upsizing the off-site infrastructure.

Do not hesitate to contact me if you have questions related to the modeling work, results, or conclusions presented herein.

Sincerely,

BALANCE HYDROLOGICS, Inc.



Edward D. Ballman, P.E. 64095  
Principal Engineer

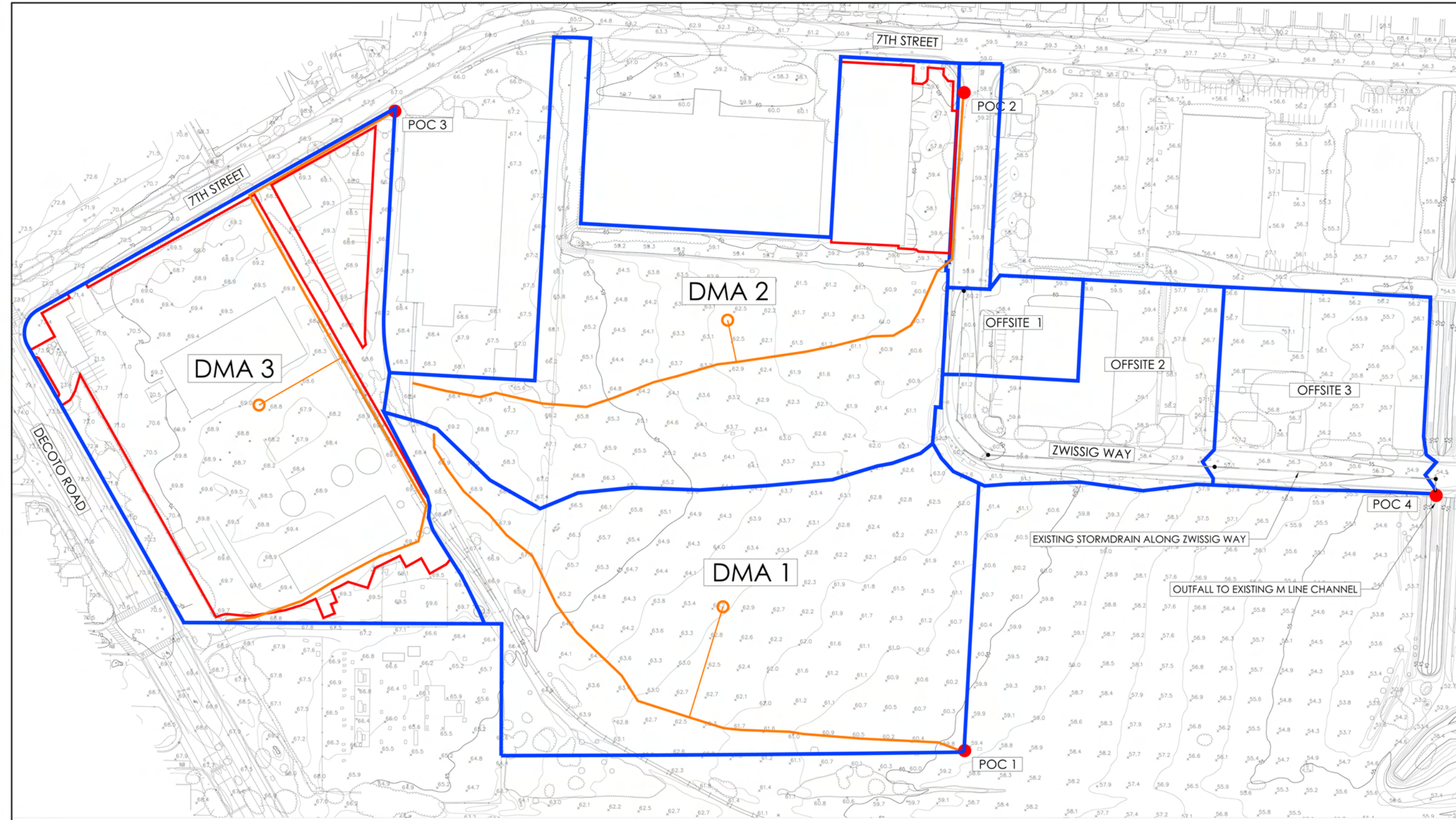
Enclosures:     Plate 1. Pre-project Hydrologic Modeling Workmap  
                  Plate 2. Post-project Hydrologic Modeling Workmap  
                  Appendix A: Web Soil Survey Report  
                  Appendix B: Bay Area Hydrology Model Output  
                  Appendix C: Summary of HEC-HMS Model Output  
                  Appendix D: Zwissig Way Storm Drain Profile with Hydraulic Gradeline





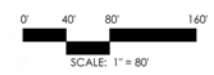
## PLATES





**LEGEND:**

- EXISTING INDEX CONTOUR
- EXISTING INTERMEDIATE CONTOUR
- EXISTING POINT ELEVATION
- DRAINAGE MANAGEMENT AREA BOUNDARY
- LONGEST FLOW PATH
- DRAINAGE MANAGEMENT AREA CENTROID
- POINT OF CONCENTRATION
- PRE-PROJECT IMPERVIOUS AREA



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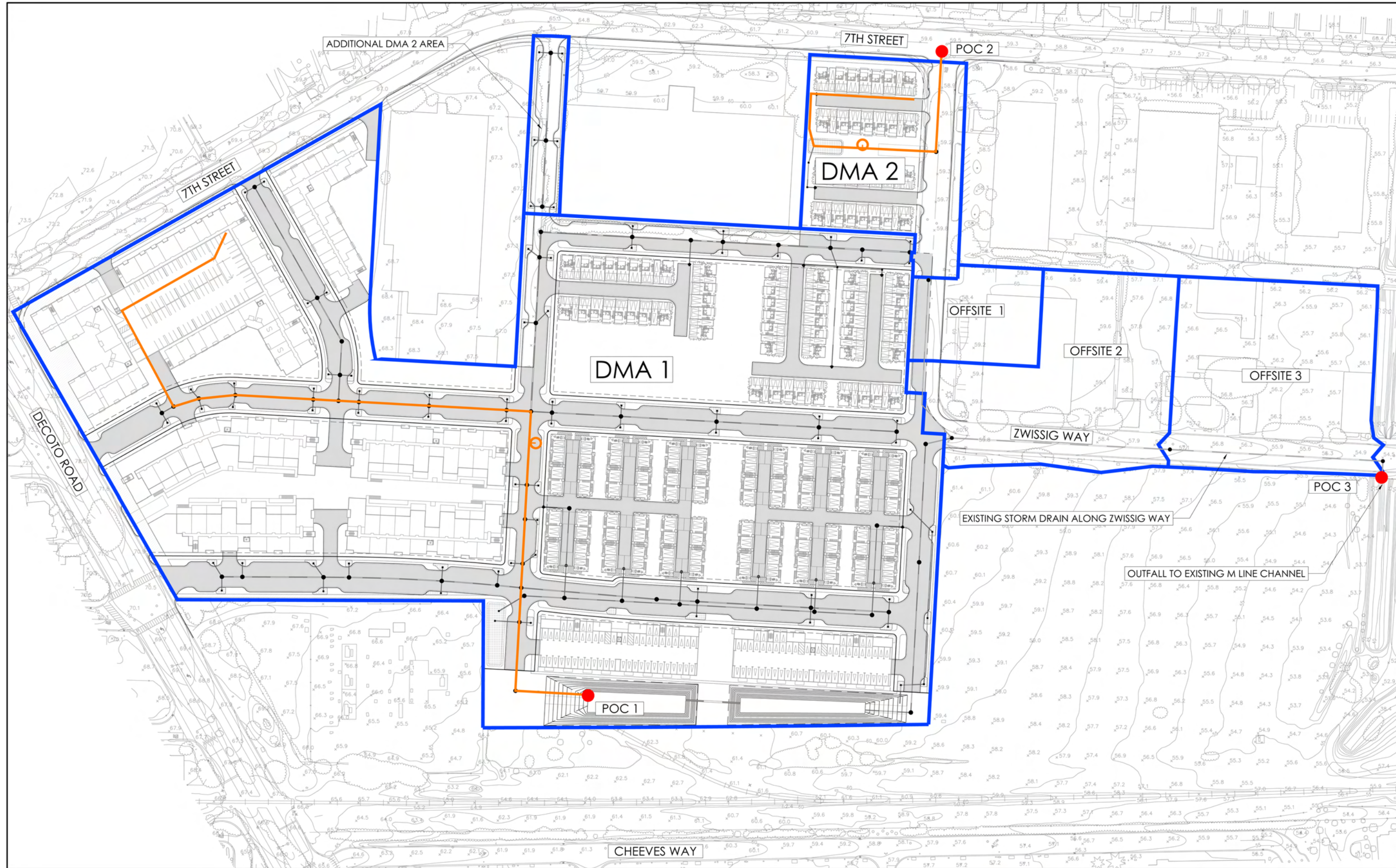
DESIGNED BY	DATE	BY	SUBMITTALS / REVISIONS

NOT FOR CONSTRUCTION

**PRE-PROJECT  
HYDROLOGIC MODELING WORKMAP  
BRADFORD WAY**

UNION CITY, COUNTY OF ALAMEDA, CALIFORNIA

PROJECT NUMBER 216089
SCALE AS NOTED
PLATE <b>1</b>



DESIGNED BY	DRAWN BY	CHECKED BY	IN CHARGE	DATE

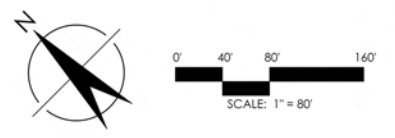
BY	DATE	REVISIONS

NOT FOR CONSTRUCTION

**POST-PROJECT  
 HYDROLOGIC MODELING WORKMAP  
 BRADFORD WAY**  
 UNION CITY, COUNTY OF ALAMEDA, CALIFORNIA

PROJECT NUMBER  
216089  
 SCALE  
AS NOTED  
 PLATE  
**2**

- LEGEND:**
- EXISTING INDEX CONTOUR
  - EXISTING INTERMEDIATE CONTOUR
  - EXISTING POINT ELEVATION
  - DRAINAGE MANAGEMENT AREA BOUNDARY
  - LONGEST FLOW PATH
  - DRAINAGE MANAGEMENT AREA CENTROID
  - POINT OF CONCENTRATION



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## **APPENDIX A**

### **Web Soil Survey Report**





United States  
Department of  
Agriculture

**NRCS**

Natural  
Resources  
Conservation  
Service

A product of the National  
Cooperative Soil Survey,  
a joint effort of the United  
States Department of  
Agriculture and other  
Federal agencies, State  
agencies including the  
Agricultural Experiment  
Stations, and local  
participants

# Custom Soil Resource Report for **Alameda County, California, Western Part**

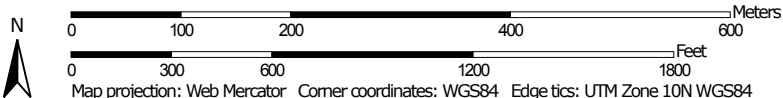


# Custom Soil Resource Report Map—Hydrologic Soil Group



Soil Map may not be valid at this scale.


Map Scale: 1:6,880 if printed on A portrait (8.5" x 11") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84











### MAP LEGEND









**Area of Interest (AOI)**  
 Area of Interest (AOI)

**Soils**





**Soil Rating Polygons**

-  A
-  A/D
-  B
-  B/D
-  C
-  C/D
-  D
-  Not rated or not available


**Soil Rating Lines**

-  A
-  A/D
-  B
-  B/D
-  C
-  C/D
-  D
-  Not rated or not available






**Soil Rating Points**

-  A
-  A/D
-  B
-  B/D


**Water Features**

-  Streams and Canals





**Transportation**

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

**Background**

-  Aerial Photography

**Soils**

-  C
-  C/D
-  D
-  Not rated or not available

### MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
 Web Soil Survey URL:  
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Alameda County, California, Western Part  
 Survey Area Data: Version 12, Sep 12, 2016

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 26, 2010—Nov 4, 2013

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

**Table—Hydrologic Soil Group**

Hydrologic Soil Group— Summary by Map Unit — Alameda County, California, Western Part (CA610)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
107	Clear Lake clay, drained, 0 to 2 percent slopes, MLRA 14	D	24.0	26.6%
112	Danville silty clay loam, 2 to 9 percent slopes	C	0.6	0.6%
140	Rincon clay loam, 0 to 2 percent slopes, MLRA 14	C	65.6	72.8%
<b>Totals for Area of Interest</b>			<b>90.2</b>	<b>100.0%</b>

**Rating Options—Hydrologic Soil Group**

*Aggregation Method: Dominant Condition*

*Component Percent Cutoff: None Specified*

*Tie-break Rule: Higher*

## **APPENDIX B**

### **Bay Area Hydrology Model Output**



**BAHM2013**  
**PROJECT REPORT**



## *General Model Information*

Project Name: 216089 BAHM 2020  
Site Name: Bradford  
Site Address:  
City: Union City  
Report Date: 6/12/2020  
Gage: NRWARK  
Data Start: 1959/10/01  
Data End: 2003/09/30  
Timestep: Hourly  
Precip Scale: 1.308  
Version Date: 2019/12/31

## *POC Thresholds*

---

Low Flow Threshold for POC1: 10 Percent of the 2 Year  
High Flow Threshold for POC1: 10 Year

---

DRAFT

## Landuse Basin Data

### Predeveloped Land Use

#### DMA 3

Bypass: No

GroundWater: No

Pervious Land Use acre  
C D,Grass,Flat(0-5%) 2.581

Pervious Total 2.581

Impervious Land Use acre  
Roads,Flat(0-5%) 3.042  
Roof Area 3.042

Impervious Total 6.084

Basin Total 8.665

Element Flows To:  
Surface Interflow Groundwater

DRAFT



DMA 2

Bypass:	No
GroundWater:	No
Pervious Land Use C D,Grass,Flat(0-5%)	acre 7.772
Pervious Total	7.772
Impervious Land Use Roads,Flat(0-5%) Roof Area	acre 0.938 0.938
Impervious Total	1.876
Basin Total	9.648

Element Flows To:  
Surface                      Interflow                      Groundwater

DRAFT

## DMA 1

Bypass:	No
GroundWater:	No
Pervious Land Use C D,Grass,Flat(0-5%)	acre 9.005
Pervious Total	9.005
Impervious Land Use Roads,Flat(0-5%)	acre 0.368
Impervious Total	0.368
Basin Total	9.373

Element Flows To:	Interflow	Groundwater
Surface		

DRAFT

*Mitigated Land Use*

**DMA 80**

Bypass:	No
GroundWater:	No
Pervious Land Use C D,Grass,Flat(0-5%)	acre 0.184
Pervious Total	0.184
Impervious Land Use Roads,Flat(0-5%) Roof Area	acre 0.58 0.58
Impervious Total	1.16
Basin Total	1.344

Element Flows To:		
Surface	Interflow	Groundwater
Surface Bio 80	Surface Bio 80	

DRAFT

## DMA 1 Remainder

Bypass:	No
GroundWater:	No
Pervious Land Use C D,Grass,Flat(0-5%)	acre 4.256
Pervious Total	4.256
Impervious Land Use Roads,Flat(0-5%) Roof Area	acre 8.383 8.383
Impervious Total	16.766
Basin Total	21.022

Element Flows To:		
Surface	Interflow	Groundwater
Combined Basins	Combined Basins	

DRAFT

DMA 73

Bypass:	No
GroundWater:	No
Pervious Land Use C D,Grass,Flat(0-5%)	acre 1.135
Pervious Total	1.135
Impervious Land Use Roads,Flat(0-5%) Roof Area	acre 1.203 1.203
Impervious Total	2.406
Basin Total	3.541

Element Flows To:		
Surface	Interflow	Groundwater
Surface Bio 73	Surface Bio 73	

DRAFT

DMA 81

Bypass:	No
GroundWater:	No
Pervious Land Use C D,Grass,Flat(0-5%)	acre 0.127
Pervious Total	0.127
Impervious Land Use Roads,Flat(0-5%) Roof Area	acre 0.215 0.215
Impervious Total	0.43
Basin Total	0.557

Element Flows To:		
Surface	Interflow	Groundwater
Surface Bio 81	Surface Bio 81	

DRAFT

## DMA 2 Remainder

Bypass:	Yes
GroundWater:	No
Pervious Land Use C D,Grass,Flat(0-5%)	acre 0.182
Pervious Total	0.182
Impervious Land Use Roads,Flat(0-5%) Roof Area	acre 0.469 0.469
Impervious Total	0.938
Basin Total	1.12

Element Flows To:  
Surface                      Interflow                      Groundwater

DRAFT

*Routing Elements*  
*Predeveloped Routing*

DRAFT



## Mitigated Routing

### Combined Basins

Depth: 9 ft.  
Element Flows To:  
Outlet 1                      Outlet 2

SSD Table Hydraulic Table

Stage (feet)	Area (ac.)	Volume (ac-ft.)	Manual	NotUsed	NotUsed	NotUsed	NotUsed
0.000	0.248	0.000	0.000	0.000	0.000	0.000	0.000
1.000	0.296	0.272	0.430	0.000	0.000	0.000	0.000
2.000	0.348	0.595	0.640	0.000	0.000	0.000	0.000
3.000	0.405	0.971	0.790	0.000	0.000	0.000	0.000
3.500	0.434	1.181	2.390	0.000	0.000	0.000	0.000
4.000	0.464	1.405	3.980	0.000	0.000	0.000	0.000
5.000	0.528	1.901	5.870	0.000	0.000	0.000	0.000
6.000	0.596	2.463	7.250	0.000	0.000	0.000	0.000
6.500	0.632	2.770	7.840	0.000	0.000	0.000	0.000
6.750	0.650	2.930	8.130	0.000	0.000	0.000	0.000
7.000	0.668	3.095	8.900	0.000	0.000	0.000	0.000
7.500	0.706	3.438	11.51	0.000	0.000	0.000	0.000
8.000	0.743	3.800	14.98	0.000	0.000	0.000	0.000
9.000	0.823	4.584	23.77	0.000	0.000	0.000	0.000

DRAFT

## Bio 80

Bottom Length: 76.00 ft.  
 Bottom Width: 20.00 ft.  
 Material thickness of first layer: 1.5  
 Material type for first layer: BAHM 5  
 Material thickness of second layer: 1  
 Material type for second layer: GRAVEL  
 Material thickness of third layer: 0  
 Material type for third layer: GRAVEL  
 Underdrain used  
 Underdrain Diameter (feet): 1  
 Orifice Diameter (in.): 2.5  
 Offset (in.): 0  
 Flow Through Underdrain (ac-ft.): 65.102  
 Total Outflow (ac-ft.): 69.728  
 Percent Through Underdrain: 93.37  
 Discharge Structure  
 Riser Height: 0.5 ft.  
 Riser Diameter: 18 in.  
 Element Flows To:  
 Outlet 1                      Outlet 2

Bioretention Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	Infilt(cfs)
0.0000	0.0349	0.0000	0.0000	0.0000
0.0385	0.0349	0.0005	0.0000	0.0000
0.0769	0.0349	0.0010	0.0000	0.0000
0.1154	0.0349	0.0015	0.0000	0.0000
0.1538	0.0349	0.0020	0.0000	0.0000
0.1923	0.0349	0.0025	0.0000	0.0000
0.2308	0.0349	0.0031	0.0000	0.0000
0.2692	0.0349	0.0036	0.0000	0.0000
0.3077	0.0349	0.0041	0.0000	0.0000
0.3462	0.0349	0.0046	0.0000	0.0000
0.3846	0.0349	0.0051	0.0000	0.0000
0.4231	0.0349	0.0056	0.0079	0.0000
0.4615	0.0349	0.0061	0.0093	0.0000
0.5000	0.0349	0.0066	0.0109	0.0000
0.5385	0.0349	0.0071	0.0127	0.0000
0.5769	0.0349	0.0076	0.0147	0.0000
0.6154	0.0349	0.0082	0.0170	0.0000
0.6538	0.0349	0.0087	0.0195	0.0000
0.6923	0.0349	0.0092	0.0223	0.0000
0.7308	0.0349	0.0097	0.0254	0.0000
0.7692	0.0349	0.0102	0.0288	0.0000
0.8077	0.0349	0.0107	0.0311	0.0000
0.8462	0.0349	0.0112	0.0364	0.0000
0.8846	0.0349	0.0117	0.0384	0.0000
0.9231	0.0349	0.0122	0.0394	0.0000
0.9615	0.0349	0.0127	0.0462	0.0000
1.0000	0.0349	0.0133	0.0500	0.0000
1.0385	0.0349	0.0138	0.0520	0.0000
1.0769	0.0349	0.0143	0.0573	0.0000
1.1154	0.0349	0.0148	0.0608	0.0000
1.1538	0.0349	0.0153	0.0620	0.0000

1.1923	0.0349	0.0158	0.0665	0.0000
1.2308	0.0349	0.0163	0.0706	0.0000
1.2692	0.0349	0.0168	0.0745	0.0000
1.3077	0.0349	0.0173	0.0782	0.0000
1.3462	0.0349	0.0178	0.0817	0.0000
1.3846	0.0349	0.0184	0.0851	0.0000
1.4231	0.0349	0.0189	0.0884	0.0000
1.4615	0.0349	0.0194	0.0915	0.0000
1.5000	0.0349	0.0199	0.0945	0.0000
1.5385	0.0349	0.0205	0.0974	0.0000
1.5769	0.0349	0.0211	0.1003	0.0000
1.6154	0.0349	0.0216	0.1031	0.0000
1.6538	0.0349	0.0222	0.1057	0.0000
1.6923	0.0349	0.0227	0.1084	0.0000
1.7308	0.0349	0.0233	0.1109	0.0000
1.7692	0.0349	0.0238	0.1134	0.0000
1.8077	0.0349	0.0244	0.1159	0.0000
1.8462	0.0349	0.0249	0.1183	0.0000
1.8846	0.0349	0.0255	0.1206	0.0000
1.9231	0.0349	0.0261	0.1229	0.0000
1.9615	0.0349	0.0266	0.1252	0.0000
2.0000	0.0349	0.0272	0.1274	0.0000
2.0385	0.0349	0.0277	0.1296	0.0000
2.0769	0.0349	0.0283	0.1317	0.0000
2.1154	0.0349	0.0288	0.1338	0.0000
2.1538	0.0349	0.0294	0.1359	0.0000
2.1923	0.0349	0.0300	0.1400	0.0000
2.2308	0.0349	0.0305	0.1439	0.0000
2.2692	0.0349	0.0311	0.1478	0.0000
2.3077	0.0349	0.0316	0.1516	0.0000
2.3462	0.0349	0.0322	0.1552	0.0000
2.3846	0.0349	0.0327	0.1589	0.0000
2.4231	0.0349	0.0333	0.1624	0.0000
2.4615	0.0349	0.0339	0.1660	0.0000
2.5000	0.0349	0.0344	0.1712	0.0000
2.5000	0.0349	0.0344	0.1708	0.0000

Bioretention Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	To Amended(cfs)	Infiltr(cfs)
2.5000	0.0349	0.0344	0.0000	0.1759	0.0000
2.5385	0.0354	0.0358	0.0000	0.1759	0.0000
2.5769	0.0359	0.0371	0.0000	0.1849	0.0000
2.6154	0.0364	0.0385	0.0000	0.1895	0.0000
2.6538	0.0369	0.0399	0.0000	0.1940	0.0000
2.6923	0.0375	0.0414	0.0000	0.1985	0.0000
2.7308	0.0380	0.0428	0.0000	0.2030	0.0000
2.7692	0.0385	0.0443	0.0000	0.2075	0.0000
2.8077	0.0390	0.0458	0.0000	0.2120	0.0000
2.8462	0.0396	0.0473	0.0000	0.2165	0.0000
2.8846	0.0401	0.0488	0.0000	0.2210	0.0000
2.9231	0.0406	0.0504	0.0000	0.2255	0.0000
2.9615	0.0412	0.0520	0.0000	0.2301	0.0000
3.0000	0.0417	0.0536	0.0000	0.2346	0.0000
3.0385	0.0423	0.0552	0.1200	0.2391	0.0000
3.0769	0.0428	0.0568	0.3391	0.2436	0.0000
3.1154	0.0433	0.0585	0.6219	0.2481	0.0000
3.1538	0.0439	0.0601	0.9542	0.2526	0.0000
3.1923	0.0444	0.0618	1.3261	0.2571	0.0000

3.2308	0.0450	0.0636	1.7286	0.2616	0.0000
3.2692	0.0456	0.0653	2.1526	0.2661	0.0000
3.3077	0.0461	0.0671	2.5891	0.2707	0.0000
3.3462	0.0467	0.0688	3.0289	0.2752	0.0000
3.3846	0.0472	0.0707	3.4625	0.2797	0.0000
3.4231	0.0478	0.0725	3.8809	0.2842	0.0000
3.4615	0.0484	0.0743	4.2756	0.2887	0.0000
3.5000	0.0489	0.0762	4.6391	0.2932	0.0000

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Surface Bio 80  
Element Flows To:  
Outlet 1

Outlet 2  
Bio 80

DRAFT

## Bio 73

Bottom Length: 124.00 ft.  
 Bottom Width: 20.00 ft.  
 Material thickness of first layer: 1.5  
 Material type for first layer: BAHM 5  
 Material thickness of second layer: 1  
 Material type for second layer: GRAVEL  
 Material thickness of third layer: 0  
 Material type for third layer: GRAVEL  
 Underdrain used  
 Underdrain Diameter (feet): 1  
 Orifice Diameter (in.): 4  
 Offset (in.): 0  
 Flow Through Underdrain (ac-ft.): 138.199  
 Total Outflow (ac-ft.): 156.12  
 Percent Through Underdrain: 88.52  
 Discharge Structure  
 Riser Height: 0.5 ft.  
 Riser Diameter: 18 in.  
 Element Flows To:  
 Outlet 1                      Outlet 2  
 Combined Basins

Bioretention Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	Infilt(cfs)
0.0000	0.0569	0.0000	0.0000	0.0000
0.0385	0.0569	0.0008	0.0000	0.0000
0.0769	0.0569	0.0017	0.0000	0.0000
0.1154	0.0569	0.0025	0.0000	0.0000
0.1538	0.0569	0.0033	0.0000	0.0000
0.1923	0.0569	0.0042	0.0000	0.0000
0.2308	0.0569	0.0050	0.0000	0.0000
0.2692	0.0569	0.0058	0.0000	0.0000
0.3077	0.0569	0.0067	0.0000	0.0000
0.3462	0.0569	0.0075	0.0000	0.0000
0.3846	0.0569	0.0083	0.0000	0.0000
0.4231	0.0569	0.0092	0.0129	0.0000
0.4615	0.0569	0.0100	0.0151	0.0000
0.5000	0.0569	0.0108	0.0177	0.0000
0.5385	0.0569	0.0116	0.0206	0.0000
0.5769	0.0569	0.0125	0.0240	0.0000
0.6154	0.0569	0.0133	0.0277	0.0000
0.6538	0.0569	0.0141	0.0319	0.0000
0.6923	0.0569	0.0150	0.0364	0.0000
0.7308	0.0569	0.0158	0.0414	0.0000
0.7692	0.0569	0.0166	0.0469	0.0000
0.8077	0.0569	0.0175	0.0529	0.0000
0.8462	0.0569	0.0183	0.0593	0.0000
0.8846	0.0569	0.0191	0.0663	0.0000
0.9231	0.0569	0.0200	0.0731	0.0000
0.9615	0.0569	0.0208	0.0737	0.0000
1.0000	0.0569	0.0216	0.0817	0.0000
1.0385	0.0569	0.0225	0.0902	0.0000
1.0769	0.0569	0.0233	0.0992	0.0000
1.1154	0.0569	0.0241	0.1088	0.0000
1.1538	0.0569	0.0250	0.1182	0.0000

1.1923	0.0569	0.0258	0.1297	0.0000
1.2308	0.0569	0.0266	0.1332	0.0000
1.2692	0.0569	0.0275	0.1466	0.0000
1.3077	0.0569	0.0283	0.1529	0.0000
1.3462	0.0569	0.0291	0.1588	0.0000
1.3846	0.0569	0.0300	0.1702	0.0000
1.4231	0.0569	0.0308	0.1786	0.0000
1.4615	0.0569	0.0316	0.1808	0.0000
1.5000	0.0569	0.0325	0.1907	0.0000
1.5385	0.0569	0.0334	0.2002	0.0000
1.5769	0.0569	0.0343	0.2093	0.0000
1.6154	0.0569	0.0353	0.2179	0.0000
1.6538	0.0569	0.0362	0.2262	0.0000
1.6923	0.0569	0.0371	0.2342	0.0000
1.7308	0.0569	0.0380	0.2420	0.0000
1.7692	0.0569	0.0389	0.2495	0.0000
1.8077	0.0569	0.0398	0.2567	0.0000
1.8462	0.0569	0.0407	0.2638	0.0000
1.8846	0.0569	0.0416	0.2707	0.0000
1.9231	0.0569	0.0425	0.2774	0.0000
1.9615	0.0569	0.0434	0.2904	0.0000
2.0000	0.0569	0.0443	0.3027	0.0000
2.0385	0.0569	0.0453	0.3147	0.0000
2.0769	0.0569	0.0462	0.3261	0.0000
2.1154	0.0569	0.0471	0.3372	0.0000
2.1538	0.0569	0.0480	0.3479	0.0000
2.1923	0.0569	0.0489	0.3584	0.0000
2.2308	0.0569	0.0498	0.3685	0.0000
2.2692	0.0569	0.0507	0.3784	0.0000
2.3077	0.0569	0.0516	0.3827	0.0000
2.3462	0.0569	0.0525	0.3827	0.0000
2.3846	0.0569	0.0534	0.3827	0.0000
2.4231	0.0569	0.0543	0.3827	0.0000
2.4615	0.0569	0.0552	0.3827	0.0000
2.5000	0.0569	0.0562	0.3827	0.0000
2.5000	0.0569	0.0562	0.3827	0.0000

Bioretention Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	To Amended(cfs)	Infil(cfs)
2.5000	0.0569	0.0562	0.0000	0.2870	0.0000
2.5385	0.0577	0.0584	0.0000	0.2870	0.0000
2.5769	0.0585	0.0606	0.0000	0.3018	0.0000
2.6154	0.0592	0.0629	0.0000	0.3091	0.0000
2.6538	0.0600	0.0652	0.0000	0.3165	0.0000
2.6923	0.0608	0.0675	0.0000	0.3238	0.0000
2.7308	0.0616	0.0698	0.0000	0.3312	0.0000
2.7692	0.0623	0.0722	0.0000	0.3386	0.0000
2.8077	0.0631	0.0746	0.0000	0.3459	0.0000
2.8462	0.0639	0.0771	0.0000	0.3533	0.0000
2.8846	0.0647	0.0795	0.0000	0.3606	0.0000
2.9231	0.0655	0.0820	0.0000	0.3680	0.0000
2.9615	0.0663	0.0846	0.0000	0.3754	0.0000
3.0000	0.0671	0.0871	0.0000	0.3827	0.0000
3.0385	0.0679	0.0897	0.1200	0.3901	0.0000
3.0769	0.0687	0.0924	0.3391	0.3974	0.0000
3.1154	0.0695	0.0950	0.6219	0.4048	0.0000
3.1538	0.0703	0.0977	0.9542	0.4122	0.0000
3.1923	0.0711	0.1004	1.3261	0.4195	0.0000

3.2308	0.0719	0.1032	1.7286	0.4269	0.0000
3.2692	0.0727	0.1059	2.1526	0.4342	0.0000
3.3077	0.0735	0.1088	2.5891	0.4416	0.0000
3.3462	0.0743	0.1116	3.0289	0.4490	0.0000
3.3846	0.0751	0.1145	3.4625	0.4563	0.0000
3.4231	0.0759	0.1174	3.8809	0.4637	0.0000
3.4615	0.0768	0.1203	4.2756	0.4710	0.0000
3.5000	0.0776	0.1233	4.6391	0.4784	0.0000

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## Surface Bio 73

Element Flows To:

Outlet 1

Combined Basins

Outlet 2

Bio 73

DRAFT

## Bio 81

Bottom Length: 28.65 ft.  
 Bottom Width: 20.00 ft.  
 Material thickness of first layer: 1.5  
 Material type for first layer: BAHM 5  
 Material thickness of second layer: 1  
 Material type for second layer: GRAVEL  
 Material thickness of third layer: 0  
 Material type for third layer: GRAVEL  
 Underdrain used  
 Underdrain Diameter (feet): 1  
 Orifice Diameter (in.): 2  
 Offset (in.): 0  
 Flow Through Underdrain (ac-ft.): 24.992  
 Total Outflow (ac-ft.): 26.762  
 Percent Through Underdrain: 93.39  
 Discharge Structure  
 Riser Height: 0.5 ft.  
 Riser Diameter: 18 in.  
 Element Flows To:  
 Outlet 1                      Outlet 2  
 Combined Basins

Bioretention Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	Infilt(cfs)
0.0000	0.0132	0.0000	0.0000	0.0000
0.0385	0.0132	0.0002	0.0000	0.0000
0.0769	0.0132	0.0004	0.0000	0.0000
0.1154	0.0132	0.0006	0.0000	0.0000
0.1538	0.0132	0.0008	0.0000	0.0000
0.1923	0.0132	0.0010	0.0000	0.0000
0.2308	0.0132	0.0012	0.0000	0.0000
0.2692	0.0132	0.0013	0.0000	0.0000
0.3077	0.0132	0.0015	0.0000	0.0000
0.3462	0.0132	0.0017	0.0000	0.0000
0.3846	0.0132	0.0019	0.0000	0.0000
0.4231	0.0132	0.0021	0.0030	0.0000
0.4615	0.0132	0.0023	0.0035	0.0000
0.5000	0.0132	0.0025	0.0041	0.0000
0.5385	0.0132	0.0027	0.0048	0.0000
0.5769	0.0132	0.0029	0.0055	0.0000
0.6154	0.0132	0.0031	0.0064	0.0000
0.6538	0.0132	0.0033	0.0074	0.0000
0.6923	0.0132	0.0035	0.0084	0.0000
0.7308	0.0132	0.0037	0.0096	0.0000
0.7692	0.0132	0.0038	0.0108	0.0000
0.8077	0.0132	0.0040	0.0122	0.0000
0.8462	0.0132	0.0042	0.0137	0.0000
0.8846	0.0132	0.0044	0.0153	0.0000
0.9231	0.0132	0.0046	0.0169	0.0000
0.9615	0.0132	0.0048	0.0170	0.0000
1.0000	0.0132	0.0050	0.0189	0.0000
1.0385	0.0132	0.0052	0.0208	0.0000
1.0769	0.0132	0.0054	0.0229	0.0000
1.1154	0.0132	0.0056	0.0251	0.0000
1.1538	0.0132	0.0058	0.0275	0.0000

1.1923	0.0132	0.0060	0.0295	0.0000
1.2308	0.0132	0.0062	0.0326	0.0000
1.2692	0.0132	0.0063	0.0333	0.0000
1.3077	0.0132	0.0065	0.0366	0.0000
1.3462	0.0132	0.0067	0.0382	0.0000
1.3846	0.0132	0.0069	0.0397	0.0000
1.4231	0.0132	0.0071	0.0425	0.0000
1.4615	0.0132	0.0073	0.0444	0.0000
1.5000	0.0132	0.0075	0.0452	0.0000
1.5385	0.0132	0.0077	0.0477	0.0000
1.5769	0.0132	0.0079	0.0501	0.0000
1.6154	0.0132	0.0081	0.0523	0.0000
1.6538	0.0132	0.0084	0.0545	0.0000
1.6923	0.0132	0.0086	0.0566	0.0000
1.7308	0.0132	0.0088	0.0586	0.0000
1.7692	0.0132	0.0090	0.0586	0.0000
1.8077	0.0132	0.0092	0.0605	0.0000
1.8462	0.0132	0.0094	0.0624	0.0000
1.8846	0.0132	0.0096	0.0660	0.0000
1.9231	0.0132	0.0098	0.0694	0.0000
1.9615	0.0132	0.0100	0.0726	0.0000
2.0000	0.0132	0.0102	0.0757	0.0000
2.0385	0.0132	0.0105	0.0787	0.0000
2.0769	0.0132	0.0107	0.0815	0.0000
2.1154	0.0132	0.0109	0.0843	0.0000
2.1538	0.0132	0.0111	0.0870	0.0000
2.1923	0.0132	0.0113	0.0884	0.0000
2.2308	0.0132	0.0115	0.0884	0.0000
2.2692	0.0132	0.0117	0.0884	0.0000
2.3077	0.0132	0.0119	0.0884	0.0000
2.3462	0.0132	0.0121	0.0884	0.0000
2.3846	0.0132	0.0123	0.0884	0.0000
2.4231	0.0132	0.0126	0.0884	0.0000
2.4615	0.0132	0.0128	0.0884	0.0000
2.5000	0.0132	0.0130	0.0884	0.0000
2.5000	0.0132	0.0130	0.0884	0.0000

Bioretention Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	To Amended(cfs)	Infil(cfs)
2.5000	0.0132	0.0130	0.0000	0.0663	0.0000
2.5385	0.0134	0.0135	0.0000	0.0663	0.0000
2.5769	0.0137	0.0140	0.0000	0.0697	0.0000
2.6154	0.0139	0.0145	0.0000	0.0714	0.0000
2.6538	0.0142	0.0151	0.0000	0.0731	0.0000
2.6923	0.0145	0.0156	0.0000	0.0748	0.0000
2.7308	0.0147	0.0162	0.0000	0.0765	0.0000
2.7692	0.0150	0.0168	0.0000	0.0782	0.0000
2.8077	0.0153	0.0173	0.0000	0.0799	0.0000
2.8462	0.0156	0.0179	0.0000	0.0816	0.0000
2.8846	0.0159	0.0185	0.0000	0.0833	0.0000
2.9231	0.0161	0.0192	0.0000	0.0850	0.0000
2.9615	0.0164	0.0198	0.0000	0.0867	0.0000
3.0000	0.0167	0.0204	0.0000	0.0884	0.0000
3.0385	0.0170	0.0211	0.1200	0.0901	0.0000
3.0769	0.0173	0.0217	0.3391	0.0918	0.0000
3.1154	0.0176	0.0224	0.6219	0.0935	0.0000
3.1538	0.0179	0.0231	0.9542	0.0952	0.0000
3.1923	0.0182	0.0238	1.3261	0.0969	0.0000

3.2308	0.0185	0.0245	1.7286	0.0986	0.0000
3.2692	0.0188	0.0252	2.1526	0.1003	0.0000
3.3077	0.0191	0.0259	2.5891	0.1020	0.0000
3.3462	0.0194	0.0267	3.0289	0.1037	0.0000
3.3846	0.0197	0.0274	3.4625	0.1054	0.0000
3.4231	0.0200	0.0282	3.8809	0.1071	0.0000
3.4615	0.0204	0.0290	4.2756	0.1088	0.0000
3.5000	0.0207	0.0298	4.6391	0.1105	0.0000

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Surface Bio 81

Element Flows To:

Outlet 1

Combined Basins

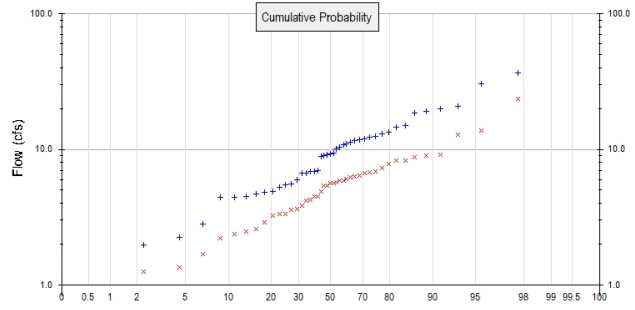
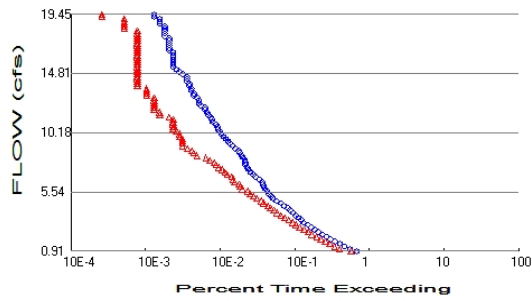
Outlet 2

Bio 81

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# Analysis Results

## POC 1



+ Predeveloped x Mitigated

### Predeveloped Landuse Totals for POC #1

Total Pervious Area: 19.358  
Total Impervious Area: 8.328

### Mitigated Landuse Totals for POC #1

Total Pervious Area: 5.884  
Total Impervious Area: 21.7

Flow Frequency Method: Weibull

### Flow Frequency Return Periods for Predeveloped. POC #1

Return Period	Flow(cfs)
2 year	9.068207
5 year	13.3535
10 year	19.447922
25 year	31.071578

### Flow Frequency Return Periods for Mitigated. POC #1

Return Period	Flow(cfs)
2 year	5.386282
5 year	7.84407
10 year	9.072919
25 year	14.789756

## Annual Peaks

### Annual Peaks for Predeveloped and Mitigated. POC #1

Year	Predeveloped	Mitigated
1960	11.927	6.305
1961	9.377	7.844
1962	19.073	6.749
1963	20.919	23.525
1964	10.336	7.274
1965	5.499	1.689
1966	8.916	4.208
1967	30.367	13.698
1968	9.061	5.599
1969	18.586	9.040
1970	6.672	4.476
1971	11.545	8.712
1972	2.237	1.252
1973	19.917	8.248

1974	9.075	6.021
1975	15.100	4.870
1976	1.706	0.957
1977	1.985	2.880
1978	13.354	8.263
1979	12.484	5.878
1980	9.323	5.860
1981	2.812	3.561
1982	12.318	6.417
1983	11.773	6.674
1984	11.010	5.361
1985	5.964	2.581
1986	6.907	3.335
1987	4.695	4.212
1988	6.655	2.482
1989	4.810	2.217
1990	5.236	4.471
1991	4.470	3.842
1992	14.598	6.897
1993	10.031	5.601
1994	4.440	3.249
1995	36.707	12.903
1996	6.861	3.641
1997	10.824	5.745
1998	13.024	9.114
1999	5.577	2.362
2000	7.013	5.413
2001	4.911	1.345
2002	4.412	3.334
2003	11.223	6.251

### Ranked Annual Peaks

Ranked Annual Peaks for Predeveloped and Mitigated. POC #1

Rank	Predeveloped	Mitigated
1	36.7066	23.5254
2	30.3672	13.6978
3	20.9192	12.9029
4	19.9172	9.1136
5	19.0725	9.0404
6	18.5860	8.7119
7	15.1000	8.2632
8	14.5978	8.2484
9	13.3535	7.8441
10	13.0235	7.2737
11	12.4844	6.8969
12	12.3179	6.7492
13	11.9270	6.6740
14	11.7733	6.4172
15	11.5451	6.3053
16	11.2228	6.2511
17	11.0097	6.0213
18	10.8240	5.8780
19	10.3363	5.8596
20	10.0311	5.7447
21	9.3766	5.6009
22	9.3228	5.5986
23	9.0755	5.4126
24	9.0613	5.3611

25	8.9156	4.8696
26	7.0132	4.4759
27	6.9070	4.4711
28	6.8614	4.2117
29	6.6724	4.2076
30	6.6555	3.8421
31	5.9639	3.6414
32	5.5768	3.5611
33	5.4990	3.3347
34	5.2365	3.3343
35	4.9111	3.2491
36	4.8096	2.8800
37	4.6948	2.5812
38	4.4699	2.4816
39	4.4396	2.3616
40	4.4124	2.2175
41	2.8124	1.6890
42	2.2368	1.3450
43	1.9854	1.2518
44	1.7057	0.9574

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## Duration Flows

The Facility PASSED

Flow(cfs)	Predev	Mit	Percentage	Pass/Fail
0.9068	2612	2202	84	Pass
1.0941	2114	1542	72	Pass
1.2814	1787	1315	73	Pass
1.4687	1554	1137	73	Pass
1.6560	1325	992	74	Pass
1.8432	1164	861	73	Pass
2.0305	1030	765	74	Pass
2.2178	913	658	72	Pass
2.4051	796	586	73	Pass
2.5924	712	515	72	Pass
2.7797	642	448	69	Pass
2.9669	577	401	69	Pass
3.1542	510	363	71	Pass
3.3415	467	319	68	Pass
3.5288	432	282	65	Pass
3.7161	400	252	63	Pass
3.9034	367	224	61	Pass
4.0906	331	203	61	Pass
4.2779	312	183	58	Pass
4.4652	277	168	60	Pass
4.6525	251	149	59	Pass
4.8398	221	139	62	Pass
5.0271	195	119	61	Pass
5.2143	185	108	58	Pass
5.4016	173	97	56	Pass
5.5889	165	90	54	Pass
5.7762	155	77	49	Pass
5.9635	148	71	47	Pass
6.1508	144	69	47	Pass
6.3381	140	60	42	Pass
6.5253	129	58	44	Pass
6.7126	114	55	48	Pass
6.8999	106	48	45	Pass
7.0872	98	45	45	Pass
7.2745	93	41	44	Pass
7.4618	89	37	41	Pass
7.6490	84	34	40	Pass
7.8363	83	32	38	Pass
8.0236	82	28	34	Pass
8.2109	79	25	31	Pass
8.3982	75	19	25	Pass
8.5855	71	17	23	Pass
8.7727	68	16	23	Pass
8.9600	61	14	22	Pass
9.1473	57	12	21	Pass
9.3346	52	12	23	Pass
9.5219	49	12	24	Pass
9.7092	46	12	26	Pass
9.8964	43	11	25	Pass
10.0837	40	11	27	Pass
10.2710	38	10	26	Pass
10.4583	36	9	25	Pass
10.6456	35	9	25	Pass

10.8329	34	9	26	Pass
11.0201	31	9	29	Pass
11.2074	30	9	30	Pass
11.3947	29	8	27	Pass
11.5820	27	6	22	Pass
11.7693	26	6	23	Pass
11.9566	24	5	20	Pass
12.1439	24	5	20	Pass
12.3311	21	5	23	Pass
12.5184	20	5	25	Pass
12.7057	20	5	25	Pass
12.8930	19	5	26	Pass
13.0803	17	4	23	Pass
13.2676	17	4	23	Pass
13.4548	16	4	25	Pass
13.6421	16	4	25	Pass
13.8294	15	3	20	Pass
14.0167	15	3	20	Pass
14.2040	14	3	21	Pass
14.3913	14	3	21	Pass
14.5785	14	3	21	Pass
14.7658	12	3	25	Pass
14.9531	11	3	27	Pass
15.1404	10	3	30	Pass
15.3277	9	3	33	Pass
15.5150	9	3	33	Pass
15.7022	9	3	33	Pass
15.8895	9	3	33	Pass
16.0768	9	3	33	Pass
16.2641	9	3	33	Pass
16.4514	9	3	33	Pass
16.6387	8	3	37	Pass
16.8259	8	3	37	Pass
17.0132	8	3	37	Pass
17.2005	8	3	37	Pass
17.3878	8	3	37	Pass
17.5751	8	3	37	Pass
17.7624	7	3	42	Pass
17.9497	7	3	42	Pass
18.1369	7	3	42	Pass
18.3242	7	2	28	Pass
18.5115	7	2	28	Pass
18.6988	6	2	33	Pass
18.8861	6	2	33	Pass
19.0734	6	2	33	Pass
19.2606	5	1	20	Pass
19.4479	5	1	20	Pass

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**POC 2**

POC #2 was not reported because POC must exist in both scenarios and both scenarios must have been run.

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## *Model Default Modifications*

Total of 0 changes have been made.

### *PERLND Changes*

No PERLND changes have been made.

### *IMPLND Changes*

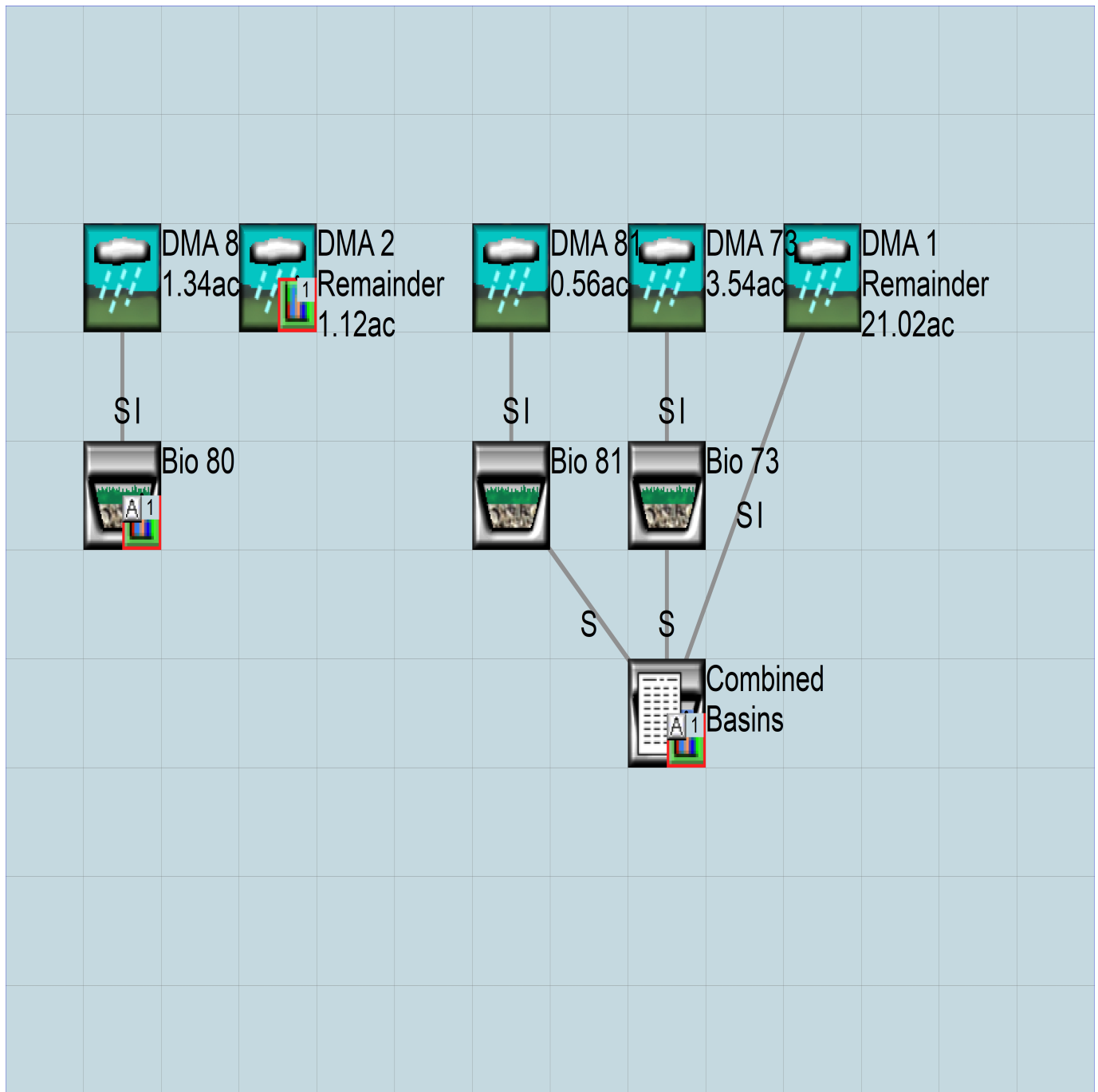
No IMPLND changes have been made.

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Appendix  
Predeveloped Schematic



Mitigated Schematic



# Predeveloped UCI File

RUN

```
GLOBAL
  WWHM4 model simulation
  START      1959 10 01      END      2003 09 30
  RUN INTERP OUTPUT LEVEL    3      0
  RESUME     0 RUN          1
  UNIT SYSTEM          1
END GLOBAL
```

```
FILES
<File> <Un#> <-----File Name----->***
<-ID->                                     ***
WDM      26      216089 BAHM 2020.wdm
MESSU    25      Pre216089 BAHM 2020.MES
          27      Pre216089 BAHM 2020.L61
          28      Pre216089 BAHM 2020.L62
          30      POC216089 BAHM 20201.dat
END FILES
```

```
OPN SEQUENCE
  INGRP          INDELT 00:60
  PERLND         41
  IMPLND         1
  IMPLND         5
  COPY          501
  DISPLY         1
  END INGRP
END OPN SEQUENCE
```

```
DISPLY
  DISPLY-INF01
  # - #<-----Title----->***TRAN PIVL DIG1 FIL1  PYR DIG2 FIL2 YRND
  1   DMA 3                                MAX          1   2   30   9
  END DISPLY-INF01
```

```
END DISPLY
COPY
  TIMESERIES
  # - # NPT NMN ***
  1   1   1   1
  501 1   1   1
  END TIMESERIES
```

```
END COPY
GENER
  OPCODE
  #   # OPCD ***
  END OPCODE
  PARM
  #   #           K ***
  END PARM
```

```
END GENER
PERLND
  GEN-INFO
  <PLS ><-----Name----->NBLKS  Unit-systems  Printer ***
  # - #                               User  t-series  Engl Metr ***
                                     in  out      ***
  41   C/D,Grass,Flat(0-5%)  1   1   1   1   27   0
  END GEN-INFO
  *** Section PWATER***
```

```
ACTIVITY
  <PLS > ***** Active Sections *****
  # - # ATMP SNOW PWAT  SED  PST  PWG  PQAL MSTL  PEST  NITR  PHOS  TRAC ***
  41   0   0   1   0   0   0   0   0   0   0   0   0
  END ACTIVITY
```

```
PRINT-INFO
  <PLS > ***** Print-flags ***** PIVL  PYR
  # - # ATMP SNOW PWAT  SED  PST  PWG  PQAL MSTL  PEST  NITR  PHOS  TRAC  *****
  41   0   0   4   0   0   0   0   0   0   0   0   0   1   9
```



END PRINT-INFO

PWAT-PARM1

```

<PLS > PWATER variable monthly parameter value flags ***
# - # CSNO RTOP UZFG VCS VUZ VNN VIFW VIRC VLE INFC HWT ***
41 0 0 0 1 0 0 0 0 1 0 0

```

END PWAT-PARM1

PWAT-PARM2

```

<PLS > PWATER input info: Part 2 ***
# - # ***FOREST LZSN INFILT LSUR SLSUR KVARY AGWRC
41 0 4 0.04 400 0.05 2 0.95

```

END PWAT-PARM2

PWAT-PARM3

```

<PLS > PWATER input info: Part 3 ***
# - # ***PETMAX PETMIN INFEXP INFILD DEEPFR BASETP AGWETP
41 40 35 3 2 0.15 0.15 0

```

END PWAT-PARM3

PWAT-PARM4

```

<PLS > PWATER input info: Part 4 ***
# - # CEPSC UZSN NSUR INTFW IRC LZETP ***
41 0 0.3 0.25 0.7 0.5 0

```

END PWAT-PARM4

MON-LZETPARM

```

<PLS > PWATER input info: Part 3 ***
# - # JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC ***
41 0.4 0.4 0.4 0.45 0.5 0.55 0.55 0.55 0.55 0.55 0.45 0.4

```

END MON-LZETPARM

MON-INTERCEP

```

<PLS > PWATER input info: Part 3 ***
# - # JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC ***
41 0.12 0.12 0.12 0.11 0.1 0.1 0.1 0.1 0.1 0.1 0.11 0.12

```

END MON-INTERCEP

PWAT-STATE1

```

<PLS > *** Initial conditions at start of simulation
ran from 1990 to end of 1992 (pat 1-11-95) RUN 21 ***
# - # *** CEPS SURS UZS IFWS LZS AGWS GWVS
41 0 0 0.01 0 0.5 0.3 0.01

```

END PWAT-STATE1

END PERLND

IMPLND

GEN-INFO

```

<PLS ><-----Name-----> Unit-systems Printer ***
# - # User t-series Engl Metr ***
in out ***
1 Roads, Flat(0-5%) 1 1 1 27 0
5 Roof Area 1 1 1 27 0

```

END GEN-INFO

\*\*\* Section IWATER\*\*\*

ACTIVITY

```

<PLS > ***** Active Sections *****
# - # ATMP SNOW IWAT SLD IWG IQAL ***
1 0 0 1 0 0 0
5 0 0 1 0 0 0

```

END ACTIVITY

PRINT-INFO

```

<ILS > ***** Print-flags ***** PIVL PYR
# - # ATMP SNOW IWAT SLD IWG IQAL *****
1 0 0 4 0 0 0 1 9
5 0 0 4 0 0 0 1 9

```

END PRINT-INFO

IWAT-PARM1

```

<PLS > IWATER variable monthly parameter value flags ***

```

```

# - # CSNO RTOP VRS VNN RTLI ***
1 0 0 0 0 0
5 0 0 0 0 0
END IWAT-PARM1

```

```

IWAT-PARM2
<PLS > IWATER input info: Part 2 ***
# - # *** LSUR SLSUR NSUR RETSC
1 100 0.05 0.1 0.1
5 100 0.05 0.1 0.1
END IWAT-PARM2

```

```

IWAT-PARM3
<PLS > IWATER input info: Part 3 ***
# - # ***PETMAX PETMIN
1 0 0
5 0 0
END IWAT-PARM3

```

```

IWAT-STATE1
<PLS > *** Initial conditions at start of simulation
# - # *** RETS SURS
1 0 0
5 0 0
END IWAT-STATE1

```

END IMPLND

```

SCHEMATIC
<-Source-> <--Area--> <-Target-> MBLK ***
<Name> # <-factor-> <Name> # Tbl# ***
DMA 3***
PERLND 41 2.581 COPY 501 12
PERLND 41 2.581 COPY 501 13
IMPLND 1 3.042 COPY 501 15
IMPLND 5 3.042 COPY 501 15
DMA 2***
PERLND 41 7.772 COPY 501 12
PERLND 41 7.772 COPY 501 13
IMPLND 1 0.938 COPY 501 15
IMPLND 5 0.938 COPY 501 15
DMA 1***
PERLND 41 9.005 COPY 501 12
PERLND 41 9.005 COPY 501 13
IMPLND 1 0.368 COPY 501 15

```

```

*****Routing*****
END SCHEMATIC

```

```

NETWORK
<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Target vols> <-Grp> <-Member-> ***
<Name> # <Name> # #<-factor->strg <Name> # # <Name> # # ***
COPY 501 OUTPUT MEAN 1 1 12.1 DISPLY 1 INPUT TIMSER 1

```

```

<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Target vols> <-Grp> <-Member-> ***
<Name> # <Name> # #<-factor->strg <Name> # # <Name> # # ***
END NETWORK

```

```

RCHRES
GEN-INFO
RCHRES Name Nexits Unit Systems Printer ***
# - #<-----><----> User T-series Engl Metr LKFG ***
in out ***
END GEN-INFO
*** Section RCHRES***

```

```

ACTIVITY
<PLS > ***** Active Sections *****

```



# Mitigated UCI File

RUN

GLOBAL

```
WVHM4 model simulation
START      1959 10 01      END      2003 09 30
RUN INTERP OUTPUT LEVEL   3      0
RESUME     0 RUN         1
UNIT SYSTEM                1
END GLOBAL
```

FILES

```
<File> <Un#> <-----File Name----->***
<-ID->                                     ***
WDM      26      216089 BAHM 2020.wdm
MESSU    25      Mit216089 BAHM 2020.MES
          27      Mit216089 BAHM 2020.L61
          28      Mit216089 BAHM 2020.L62
          30      POC216089 BAHM 20201.dat
```

END FILES

OPN SEQUENCE

INGRP INDELT 00:60

```
PERLND 41
IMPLND 1
IMPLND 5
GENER 2
RCHRES 1
RCHRES 2
GENER 4
RCHRES 3
RCHRES 4
GENER 6
RCHRES 5
RCHRES 6
RCHRES 7
COPY 1
COPY 501
COPY 601
DISPLY 1
```

END INGRP

END OPN SEQUENCE

DISPLY

DISPLY-INF01

```
# - #<-----Title----->***TRAN PIVL DIG1 FIL1 PYR DIG2 FIL2 YRND
1      Surface Bio 80      MAX      1      2      30      9
```

END DISPLY-INF01

END DISPLY

COPY

TIMESERIES

```
# - # NPT NMN ***
1      1      1      1
501    1      1      1
601    1      1      1
```

END TIMESERIES

END COPY

GENER

OPCODE

```
# # OPCODE ***
2      24
4      24
6      24
```

END OPCODE

PARM

```
# # K ***
2      0.
4      0.
6      0.
```

END PARM

END GENER

PERLND

GEN-INFO

<PLS ><-----Name----->		NBLKS		Unit-systems		Printer		***
#	-	#		User	t-series	Engl	Metr	***
				in	out	***		
41			C/D,Grass,Flat(0-5%)	1	1	1	1	27 0

END GEN-INFO

\*\*\* Section PWATER\*\*\*

ACTIVITY

<PLS > ***** Active Sections *****															
#	-	#	ATMP	SNOW	PWAT	SED	PST	PWG	PQAL	MSTL	PEST	NITR	PHOS	TRAC	***
41			0	0	1	0	0	0	0	0	0	0	0	0	

END ACTIVITY

PRINT-INFO

<PLS > ***** Print-flags *****														PIVL	PYR	
#	-	#	ATMP	SNOW	PWAT	SED	PST	PWG	PQAL	MSTL	PEST	NITR	PHOS	TRAC	*****	
41			0	0	4	0	0	0	0	0	0	0	0	0	1	9

END PRINT-INFO

PWAT-PARM1

<PLS > PWATER variable monthly parameter value flags ***														
#	-	#	CSNO	RTOP	UZFG	VCS	VUZ	VNM	VIFW	VIRC	VLE	INFC	HWT	***
41			0	0	0	1	0	0	0	0	1	0	0	

END PWAT-PARM1

PWAT-PARM2

<PLS > PWATER input info: Part 2 ***										KVARY	AGWRC
#	-	#	***FOREST	LZSN	INFILT	LSUR	SLSUR			KVARY	AGWRC
41			0	4	0.04	400	0.05			2	0.95

END PWAT-PARM2

PWAT-PARM3

<PLS > PWATER input info: Part 3 ***										BASETP	AGWETP
#	-	#	***PETMAX	PETMIN	INFEXP	INFILD	DEEPFR			BASETP	AGWETP
41			40	35	3	2	0.15			0.15	0

END PWAT-PARM3

PWAT-PARM4

<PLS > PWATER input info: Part 4 ***										LZETP	***
#	-	#	CEPSC	UZSN	NSUR	INTFW	IRC			LZETP	***
41			0	0.3	0.25	0.7	0.5			0	

END PWAT-PARM4

MON-LZETPARM

<PLS > PWATER input info: Part 3 ***															
#	-	#	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	***
41			0.4	0.4	0.4	0.45	0.5	0.55	0.55	0.55	0.55	0.55	0.45	0.4	

END MON-LZETPARM

MON-INTERCEP

<PLS > PWATER input info: Part 3 ***															
#	-	#	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	***
41			0.12	0.12	0.12	0.11	0.1	0.1	0.1	0.1	0.1	0.1	0.11	0.12	

END MON-INTERCEP

PWAT-STATE1

<PLS > *** Initial conditions at start of simulation													
ran from 1990 to end of 1992 (pat 1-11-95) RUN 21 ***													
#	-	#	*** CEPS	SURS	UZS	IFWS	LZS	AGWS	GWVS				
41			0	0	0.01	0	0.5	0.3	0.01				

END PWAT-STATE1

END PERLND

IMPLND

GEN-INFO

<PLS ><-----Name----->		Unit-systems		Printer		***		
#	-	#		User	t-series	Engl	Metr	***
				in	out	***		
1			Roads,Flat(0-5%)	1	1	1	27	0
5			Roof Area	1	1	1	27	0

END GEN-INFO  
\*\*\* Section IWATER\*\*\*

ACTIVITY  
<PLS > \*\*\*\*\* Active Sections \*\*\*\*\*  
# - # ATMP SNOW IWAT SLD IWG IQAL \*\*\*  
1 0 0 1 0 0 0  
5 0 0 1 0 0 0  
END ACTIVITY

PRINT-INFO  
<ILS > \*\*\*\*\* Print-flags \*\*\*\*\* PIVL PYR  
# - # ATMP SNOW IWAT SLD IWG IQAL \*\*\*\*\*  
1 0 0 4 0 0 0 1 9  
5 0 0 4 0 0 0 1 9  
END PRINT-INFO

IWAT-PARM1  
<PLS > IWATER variable monthly parameter value flags \*\*\*  
# - # CSNO RTOP VRS VNN RTLI \*\*\*  
1 0 0 0 0 0  
5 0 0 0 0 0  
END IWAT-PARM1

IWAT-PARM2  
<PLS > IWATER input info: Part 2 \*\*\*  
# - # \*\*\* LSUR SLSUR NSUR RETSC  
1 100 0.05 0.1 0.1  
5 100 0.05 0.1 0.1  
END IWAT-PARM2

IWAT-PARM3  
<PLS > IWATER input info: Part 3 \*\*\*  
# - # \*\*\*PETMAX PETMIN  
1 0 0  
5 0 0  
END IWAT-PARM3

IWAT-STATE1  
<PLS > \*\*\* Initial conditions at start of simulation  
# - # \*\*\* RETS SURS  
1 0 0  
5 0 0  
END IWAT-STATE1

END IMPLND

SCHEMATIC  
<-Source-> <--Area--> <-Target-> MBLK \*\*\*  
<Name> # <-factor-> <Name> # Tbl# \*\*\*  
DMA 1 Remainder\*\*\*  
PERLND 41 4.256 RCHRES 7 2  
PERLND 41 4.256 RCHRES 7 3  
IMPLND 1 8.383 RCHRES 7 5  
IMPLND 5 8.383 RCHRES 7 5  
DMA 80\*\*\*  
PERLND 41 0.184 RCHRES 1 2  
PERLND 41 0.184 RCHRES 1 3  
IMPLND 1 0.58 RCHRES 1 5  
IMPLND 5 0.58 RCHRES 1 5  
DMA 73\*\*\*  
PERLND 41 1.135 RCHRES 3 2  
PERLND 41 1.135 RCHRES 3 3  
IMPLND 1 1.203 RCHRES 3 5  
IMPLND 5 1.203 RCHRES 3 5  
DMA 81\*\*\*  
PERLND 41 0.127 RCHRES 5 2  
PERLND 41 0.127 RCHRES 5 3  
IMPLND 1 0.215 RCHRES 5 5  
IMPLND 5 0.215 RCHRES 5 5

DMA 2 Remainder\*\*\*

PERLND	41	0.182	COPY	501	12
PERLND	41	0.182	COPY	601	12
PERLND	41	0.182	COPY	501	13
PERLND	41	0.182	COPY	601	13
IMPLND	1	0.469	COPY	501	15
IMPLND	1	0.469	COPY	601	15
IMPLND	5	0.469	COPY	501	15
IMPLND	5	0.469	COPY	601	15

\*\*\*\*\*Routing\*\*\*\*\*

PERLND	41	0.184	COPY	1	12
IMPLND	1	0.58	COPY	1	15
IMPLND	5	0.58	COPY	1	15
PERLND	41	0.184	COPY	1	13
PERLND	41	4.256	COPY	1	12
IMPLND	1	8.383	COPY	1	15
IMPLND	5	8.383	COPY	1	15
PERLND	41	4.256	COPY	1	13
RCHRES	1	1	RCHRES	2	8
RCHRES	4	1	RCHRES	7	6
RCHRES	4		COPY	1	16
RCHRES	3	1	RCHRES	7	7
RCHRES	3		COPY	1	17
RCHRES	3	1	RCHRES	4	8
RCHRES	6	1	RCHRES	7	6
RCHRES	6		COPY	1	16
RCHRES	5	1	RCHRES	7	7
RCHRES	5		COPY	1	17
RCHRES	5	1	RCHRES	6	8
RCHRES	7	1	COPY	501	16
RCHRES	2	1	COPY	501	16
RCHRES	1	1	COPY	501	17

END SCHEMATIC

NETWORK

<-Volume->	<-Grp>	<-Member->	<--Mult-->	Tran	<-Target vols>	<-Grp>	<-Member->	***			
<Name>	#	<Name>	#	<-factor->	strg	<Name>	#	<Name>	#	***	
COPY	501	OUTPUT	MEAN	1	1	12.1	DISPLY	1	INPUT	TIMSER	1
GENER	2	OUTPUT	TIMSER			.0002778	RCHRES	1	EXTNL	OUTDGT	1
GENER	4	OUTPUT	TIMSER			.0002778	RCHRES	3	EXTNL	OUTDGT	1
GENER	6	OUTPUT	TIMSER			.0002778	RCHRES	5	EXTNL	OUTDGT	1

<-Volume->	<-Grp>	<-Member->	<--Mult-->	Tran	<-Target vols>	<-Grp>	<-Member->	***		
<Name>	#	<Name>	#	<-factor->	strg	<Name>	#	<Name>	#	***

END NETWORK

RCHRES

GEN-INFO

RCHRES	Name	Nexits	Unit	Systems	Printer				
#	-	#	<----->	<---->	User	T-series	Engl	Metr	LKFG
					in	out			
1	Surface Bio 80	2	1	1	1	28	0	1	
2	Bio 80	1	1	1	1	28	0	1	
3	Surface Bio 73	2	1	1	1	28	0	1	
4	Bio 73	1	1	1	1	28	0	1	
5	Surface Bio 81	2	1	1	1	28	0	1	
6	Bio 81	1	1	1	1	28	0	1	
7	Combined Basins	1	1	1	1	28	0	1	

END GEN-INFO

\*\*\* Section RCHRES\*\*\*

ACTIVITY

<PLS >	*****	Active Sections	*****
#	-	#	HYFG ADFG CNFG HTFG SDFG GQFG OXFG NUFG PKFG PHFG
1		1	0 0 0 0 0 0 0 0 0 0
2		1	0 0 0 0 0 0 0 0 0 0
3		1	0 0 0 0 0 0 0 0 0 0

```

4      1      0      0      0      0      0      0      0      0      0
5      1      0      0      0      0      0      0      0      0      0
6      1      0      0      0      0      0      0      0      0      0
7      1      0      0      0      0      0      0      0      0      0

```

END ACTIVITY

PRINT-INFO

```

<PLS > ***** Print-flags ***** PIVL  PYR
# - # HYDR ADCA CONS HEAT SED  QOL OXRX NUTR PLNK PHCB PIVL  PYR  *****
1      4      0      0      0      0      0      0      0      0      0      1      9
2      4      0      0      0      0      0      0      0      0      0      1      9
3      4      0      0      0      0      0      0      0      0      0      1      9
4      4      0      0      0      0      0      0      0      0      0      1      9
5      4      0      0      0      0      0      0      0      0      0      1      9
6      4      0      0      0      0      0      0      0      0      0      1      9
7      4      0      0      0      0      0      0      0      0      0      1      9

```

END PRINT-INFO

HYDR-PARM1

```

RCHRES  Flags for each HYDR Section *****
# - # VC A1 A2 A3 ODFVFG for each *** ODGTFG for each  FUNCT for each
      FG FG FG FG possible exit *** possible exit  possible exit
      * * * * * * * * * * * * * * * * * * * * * * *
1      0  1  0  0      4  5  0  0  0      0  1  0  0  0      2  1  2  2  2
2      0  1  0  0      4  0  0  0  0      0  0  0  0  0      2  2  2  2  2
3      0  1  0  0      4  5  0  0  0      0  1  0  0  0      2  1  2  2  2
4      0  1  0  0      4  0  0  0  0      0  0  0  0  0      2  2  2  2  2
5      0  1  0  0      4  5  0  0  0      0  1  0  0  0      2  1  2  2  2
6      0  1  0  0      4  0  0  0  0      0  0  0  0  0      2  2  2  2  2
7      0  1  0  0      4  0  0  0  0      0  0  0  0  0      2  2  2  2  2

```

END HYDR-PARM1

HYDR-PARM2

```

# - # FTABNO      LEN      DELTH      STCOR      KS      DB50      ***
<-----><-----><-----><-----><-----><-----><----->
1      1      0.01      0.0      0.0      0.0      0.0
2      2      0.01      0.0      0.0      0.0      0.0
3      3      0.01      0.0      0.0      0.0      0.0
4      4      0.02      0.0      0.0      0.0      0.0
5      5      0.01      0.0      0.0      0.0      0.0
6      6      0.01      0.0      0.0      0.0      0.0
7      7      0.01      0.0      0.0      0.5      0.0

```

END HYDR-PARM2

HYDR-INIT

```

RCHRES  Initial conditions for each HYDR section *****
# - # *** VOL      Initial value of COLIND      Initial value of OUTDGT
      *** ac-ft      for each possible exit      for each possible exit
<-----><-----><-----><-----><-----><-----><-----><----->
1      0      4.0  5.0  0.0  0.0  0.0      0.0  0.0  0.0  0.0  0.0
2      0      4.0  0.0  0.0  0.0  0.0      0.0  0.0  0.0  0.0  0.0
3      0      4.0  5.0  0.0  0.0  0.0      0.0  0.0  0.0  0.0  0.0
4      0      4.0  0.0  0.0  0.0  0.0      0.0  0.0  0.0  0.0  0.0
5      0      4.0  5.0  0.0  0.0  0.0      0.0  0.0  0.0  0.0  0.0
6      0      4.0  0.0  0.0  0.0  0.0      0.0  0.0  0.0  0.0  0.0
7      0      4.0  0.0  0.0  0.0  0.0      0.0  0.0  0.0  0.0  0.0

```

END HYDR-INIT

END RCHRES

SPEC-ACTIONS

```

*** User-Defined Variable Quantity Lines
***      addr
***      <----->
*** kwd  varnam optyp  opn  vari  s1 s2 s3 tp multiply  lc ls ac as agfn ***
<****> <-----> <-----> <-> <-----><-><-><-><-><-----> <-><-> <-><-> <---> ***
UVQUAN vol2  RCHRES  2  VOL      4
UVQUAN v2m2  GLOBAL  WORKSP  1      3
UVQUAN vpo2  GLOBAL  WORKSP  2      3
UVQUAN v2d2  GENER  2  K      1      3
*** User-Defined Variable Quantity Lines
***      addr

```



```

***          <----->
*** kwd  varnam optyp  opn  vari  s1 s2 s3 tp multiply  lc ls ac as agfn ***
<****> <-----> <-----> <-> <-----><-><-><-><-><-----> <><-> <><-> <-> ***
UVQUAN vol4  RCHRES  4 VOL  4
UVQUAN v2m4  GLOBAL  WORKSP 3 3
UVQUAN vpo4  GLOBAL  WORKSP 4 3
UVQUAN v2d4  GENER  4 K 1 3
*** User-Defined Variable Quantity Lines
***          addr
***          <----->
*** kwd  varnam optyp  opn  vari  s1 s2 s3 tp multiply  lc ls ac as agfn ***
<****> <-----> <-----> <-> <-----><-><-><-><-><-----> <><-> <><-> <-> ***
UVQUAN vol6  RCHRES  6 VOL  4
UVQUAN v2m6  GLOBAL  WORKSP 5 3
UVQUAN vpo6  GLOBAL  WORKSP 6 3
UVQUAN v2d6  GENER  6 K 1 3
*** User-Defined Target Variable Names
***          addr or
***          <----->
*** kwd  varnam ct  vari  s1 s2 s3  frac oper  vari  s1 s2 s3  frac oper
<****> <-----><-> <-----><-><-><-> <-----> <-> <-----><-><-><-> <-----> <->
UVNAME v2m2  1 WORKSP 1 1.0 QUAN
UVNAME vpo2  1 WORKSP 2 1.0 QUAN
UVNAME v2d2  1 K 1 1.0 QUAN
*** User-Defined Target Variable Names
***          addr or
***          <----->
*** kwd  varnam ct  vari  s1 s2 s3  frac oper  vari  s1 s2 s3  frac oper
<****> <-----><-> <-----><-><-><-> <-----> <-> <-----><-><-><-> <-----> <->
UVNAME v2m4  1 WORKSP 3 1.0 QUAN
UVNAME vpo4  1 WORKSP 4 1.0 QUAN
UVNAME v2d4  1 K 1 1.0 QUAN
*** User-Defined Target Variable Names
***          addr or
***          <----->
*** kwd  varnam ct  vari  s1 s2 s3  frac oper  vari  s1 s2 s3  frac oper
<****> <-----><-> <-----><-><-><-> <-----> <-> <-----><-><-><-> <-----> <->
UVNAME v2m6  1 WORKSP 5 1.0 QUAN
UVNAME vpo6  1 WORKSP 6 1.0 QUAN
UVNAME v2d6  1 K 1 1.0 QUAN
*** opt foplop dcdts  yr mo dy hr mn d t  vnam  s1 s2 s3 ac quantity  tc  ts rp
<****><-><-><-><-><-> <> <> <> <><><> <-----><-><-><-><-><-----> <> <-><->
GENER  2 v2m2 = 2115.67
*** Compute remaining available pore space
GENER  2 vpo2 = v2m2
GENER  2 vpo2 -= vol2
*** Check to see if VPORA goes negative; if so set VPORA = 0.0
IF (vpo2 < 0.0) THEN
GENER  2 vpo2 = 0.0
END IF
*** Infiltration volume
GENER  2 v2d2 = vpo2
*** opt foplop dcdts  yr mo dy hr mn d t  vnam  s1 s2 s3 ac quantity  tc  ts rp
<****><-><-><-><-><-> <> <> <> <><><> <-----><-><-><-><-><-----> <> <-><->
GENER  4 v2m4 = 3823.92
*** Compute remaining available pore space
GENER  4 vpo4 = v2m4
GENER  4 vpo4 -= vol4
*** Check to see if VPORA goes negative; if so set VPORA = 0.0
IF (vpo4 < 0.0) THEN
GENER  4 vpo4 = 0.0
END IF
*** Infiltration volume
GENER  4 v2d4 = vpo4
*** opt foplop dcdts  yr mo dy hr mn d t  vnam  s1 s2 s3 ac quantity  tc  ts rp
<****><-><-><-><-><-> <> <> <> <><><> <-----><-><-><-><-><-----> <> <-><->
GENER  6 v2m6 = 883.51
*** Compute remaining available pore space
GENER  6 vpo6 = v2m6
GENER  6 vpo6 -= vol6

```

```

*** Check to see if VPORA goes negative; if so set VPORA = 0.0
IF (vpo6 < 0.0) THEN
  GENER      6                vpo6                = 0.0
END IF
*** Infiltration volume
GENER      6                v2d6                = vpo6
END SPEC-ACTIONS
FTABLES

```

```

FTABLE      7
  14      4
  Depth      Area      Volume      Outflowl Velocity      Travel Time***
  (ft)      (acres) (acre-ft) (cfs)      (ft/sec)      (Minutes)***
0.000000  0.248200  0.000000  0.000000  0.000000
1.000000  0.296400  0.272000  0.272000  0.430000
2.000000  0.348300  0.595000  0.640000
3.000000  0.404500  0.971000  0.790000
3.500000  0.434300  1.181000  2.390000
4.000000  0.464200  1.405000  3.980000
5.000000  0.528000  1.901000  5.870000
6.000000  0.595700  2.463000  7.250000
6.500000  0.631700  2.770000  7.840000
6.750000  0.649600  2.930000  8.130000
7.000000  0.667600  3.095000  8.900000
7.500000  0.705500  3.438000  11.51000
8.000000  0.743300  3.800000  14.98000
9.000000  0.823200  4.584000  23.77000

```

```

END FTABLE 7
FTABLE      2
  67      4
  Depth      Area      Volume      Outflowl Velocity      Travel Time***
  (ft)      (acres) (acre-ft) (cfs)      (ft/sec)      (Minutes)***
0.000000  0.034894  0.000000  0.000000  0.000000
0.038462  0.034894  0.000510  0.000000
0.076923  0.034894  0.001020  0.000000
0.115385  0.034894  0.001530  0.000000
0.153846  0.034894  0.002040  0.000000
0.192308  0.034894  0.002550  0.000000
0.230769  0.034894  0.003060  0.000000
0.269231  0.034894  0.003570  0.000000
0.307692  0.034894  0.004080  0.000000
0.346154  0.034894  0.004590  0.000000
0.384615  0.034894  0.005100  0.000000
0.423077  0.034894  0.005610  0.007908
0.461538  0.034894  0.006120  0.009272
0.500000  0.034894  0.006630  0.010851
0.538462  0.034894  0.007140  0.012656
0.576923  0.034894  0.007650  0.014696
0.615385  0.034894  0.008160  0.016981
0.653846  0.034894  0.008670  0.019522
0.692308  0.034894  0.009180  0.022326
0.730769  0.034894  0.009690  0.025403
0.769231  0.034894  0.010200  0.028762
0.807692  0.034894  0.010710  0.031068
0.846154  0.034894  0.011220  0.036355
0.884615  0.034894  0.011730  0.038441
0.923077  0.034894  0.012240  0.039384
0.961538  0.034894  0.012750  0.046161
1.000000  0.034894  0.013260  0.050049
1.038462  0.034894  0.013770  0.052023
1.076923  0.034894  0.014280  0.057262
1.115385  0.034894  0.014790  0.060799
1.153846  0.034894  0.015300  0.062043
1.192308  0.034894  0.015810  0.066468
1.230769  0.034894  0.016320  0.070607
1.269231  0.034894  0.016830  0.074508
1.307692  0.034894  0.017340  0.078210
1.346154  0.034894  0.017850  0.081739
1.384615  0.034894  0.018360  0.085119
1.423077  0.034894  0.018870  0.088366
1.461538  0.034894  0.019380  0.091495

```

```

1.500000 0.034894 0.019937 0.094519
1.538462 0.034894 0.020494 0.097448
1.576923 0.034894 0.021051 0.100289
1.615385 0.034894 0.021608 0.103051
1.653846 0.034894 0.022165 0.105740
1.692308 0.034894 0.022722 0.108361
1.730769 0.034894 0.023279 0.110920
1.769231 0.034894 0.023836 0.113420
1.807692 0.034894 0.024393 0.115867
1.846154 0.034894 0.024949 0.118262
1.884615 0.034894 0.025506 0.120609
1.923077 0.034894 0.026063 0.122912
1.961538 0.034894 0.026620 0.125172
2.000000 0.034894 0.027177 0.127392
2.038462 0.034894 0.027734 0.129574
2.076923 0.034894 0.028291 0.131720
2.115385 0.034894 0.028848 0.133833
2.153846 0.034894 0.029405 0.135913
2.192308 0.034894 0.029962 0.139982
2.230769 0.034894 0.030519 0.143939
2.269231 0.034894 0.031076 0.147795
2.307692 0.034894 0.031633 0.151561
2.346154 0.034894 0.032190 0.155245
2.384615 0.034894 0.032747 0.158862
2.423077 0.034894 0.033304 0.162434
2.461538 0.034894 0.033861 0.166039
2.500000 0.034894 0.034418 0.171228
2.500000 0.034894 0.048537 0.170838

```

END FTABLE 2

FTABLE 1

27 5

Depth (ft)	Area (acres)	Volume (acre-ft)	Outflow1 (cfs)	Outflow2 (cfs)	Velocity (ft/sec)	Travel Time*** (Minutes)***
0.000000	0.034894	0.000000	0.000000	0.000000		
0.038462	0.035404	0.001352	0.000000	0.175926		
0.076923	0.035916	0.002723	0.000000	0.184948		
0.115385	0.036431	0.004115	0.000000	0.189459		
0.153846	0.036948	0.005526	0.000000	0.193970		
0.192308	0.037468	0.006957	0.000000	0.198481		
0.230769	0.037990	0.008408	0.000000	0.202992		
0.269231	0.038514	0.009879	0.000000	0.207503		
0.307692	0.039041	0.011371	0.000000	0.212013		
0.346154	0.039571	0.012883	0.000000	0.216524		
0.384615	0.040102	0.014415	0.000000	0.221035		
0.423077	0.040637	0.015967	0.000000	0.225546		
0.461538	0.041173	0.017541	0.000000	0.230057		
0.500000	0.041713	0.019135	0.000000	0.234568		
0.538462	0.042254	0.020749	0.120025	0.239079		
0.576923	0.042798	0.022385	0.339117	0.243590		
0.615385	0.043345	0.024042	0.621878	0.248101		
0.653846	0.043894	0.025719	0.954243	0.252612		
0.692308	0.044445	0.027418	1.326139	0.257123		
0.730769	0.044999	0.029138	1.728554	0.261634		
0.769231	0.045555	0.030880	2.152583	0.266145		
0.807692	0.046114	0.032642	2.589127	0.270655		
0.846154	0.046675	0.034427	3.028884	0.275166		
0.884615	0.047239	0.036233	3.462517	0.279677		
0.923077	0.047805	0.038061	3.880926	0.284188		
0.961538	0.048373	0.039910	4.275612	0.288699		
1.000000	0.048944	0.041782	4.639092	0.293210		

END FTABLE 1

FTABLE 4

67 4

Depth (ft)	Area (acres)	Volume (acre-ft)	Outflow1 (cfs)	Velocity (ft/sec)	Travel Time*** (Minutes)***
0.000000	0.056933	0.000000	0.000000		
0.038462	0.056933	0.000832	0.000000		
0.076923	0.056933	0.001664	0.000000		
0.115385	0.056933	0.002496	0.000000		
0.153846	0.056933	0.003328	0.000000		

0.192308	0.056933	0.004160	0.000000
0.230769	0.056933	0.004993	0.000000
0.269231	0.056933	0.005825	0.000000
0.307692	0.056933	0.006657	0.000000
0.346154	0.056933	0.007489	0.000000
0.384615	0.056933	0.008321	0.000000
0.423077	0.056933	0.009153	0.012902
0.461538	0.056933	0.009985	0.015129
0.500000	0.056933	0.010817	0.017705
0.538462	0.056933	0.011649	0.020649
0.576923	0.056933	0.012481	0.023977
0.615385	0.056933	0.013314	0.027706
0.653846	0.056933	0.014146	0.031851
0.692308	0.056933	0.014978	0.036427
0.730769	0.056933	0.015810	0.041448
0.769231	0.056933	0.016642	0.046927
0.807692	0.056933	0.017474	0.052879
0.846154	0.056933	0.018306	0.059316
0.884615	0.056933	0.019138	0.066250
0.923077	0.056933	0.019970	0.073084
0.961538	0.056933	0.020802	0.073694
1.000000	0.056933	0.021635	0.081659
1.038462	0.056933	0.022467	0.090157
1.076923	0.056933	0.023299	0.099198
1.115385	0.056933	0.024131	0.108794
1.153846	0.056933	0.024963	0.118171
1.192308	0.056933	0.025795	0.129690
1.230769	0.056933	0.026627	0.133179
1.269231	0.056933	0.027459	0.146592
1.307692	0.056933	0.028291	0.152921
1.346154	0.056933	0.029123	0.158831
1.384615	0.056933	0.029955	0.170158
1.423077	0.056933	0.030788	0.178557
1.461538	0.056933	0.031620	0.180753
1.500000	0.056933	0.032528	0.190741
1.538462	0.056933	0.033437	0.200217
1.576923	0.056933	0.034346	0.209252
1.615385	0.056933	0.035255	0.217904
1.653846	0.056933	0.036163	0.226217
1.692308	0.056933	0.037072	0.234228
1.730769	0.056933	0.037981	0.241970
1.769231	0.056933	0.038890	0.249466
1.807692	0.056933	0.039798	0.256741
1.846154	0.056933	0.040707	0.263811
1.884615	0.056933	0.041616	0.270694
1.923077	0.056933	0.042525	0.277405
1.961538	0.056933	0.043433	0.290356
2.000000	0.056933	0.044342	0.302750
2.038462	0.056933	0.045251	0.314654
2.076923	0.056933	0.046159	0.326123
2.115385	0.056933	0.047068	0.337204
2.153846	0.056933	0.047977	0.347936
2.192308	0.056933	0.048886	0.358353
2.230769	0.056933	0.049794	0.368484
2.269231	0.056933	0.050703	0.378356
2.307692	0.056933	0.051612	0.382716
2.346154	0.056933	0.052521	0.382716
2.384615	0.056933	0.053429	0.382716
2.423077	0.056933	0.054338	0.382716
2.461538	0.056933	0.055247	0.382716
2.500000	0.056933	0.056156	0.382716
2.500000	0.056933	0.087785	0.382716

END FTABLE 4  
 FTABLE 3  
 27 5

Depth (ft)	Area (acres)	Volume (acre-ft)	Outflow1 (cfs)	Outflow2 (cfs)	Velocity (ft/sec)	Travel Time*** (Minutes)***
0.000000	0.056933	0.000000	0.000000	0.000000		
0.038462	0.057697	0.002204	0.000000	0.287037		
0.076923	0.058464	0.004438	0.000000	0.301757		

0.115385	0.059233	0.006702	0.000000	0.309117
0.153846	0.060004	0.008995	0.000000	0.316477
0.192308	0.060778	0.011317	0.000000	0.323837
0.230769	0.061554	0.013670	0.000000	0.331197
0.269231	0.062333	0.016052	0.000000	0.338557
0.307692	0.063114	0.018465	0.000000	0.345917
0.346154	0.063898	0.020907	0.000000	0.353277
0.384615	0.064684	0.023380	0.000000	0.360637
0.423077	0.065473	0.025883	0.000000	0.367996
0.461538	0.066263	0.028417	0.000000	0.375356
0.500000	0.067057	0.030980	0.000000	0.382716
0.538462	0.067853	0.033575	0.120025	0.390076
0.576923	0.068651	0.036200	0.339117	0.397436
0.615385	0.069452	0.038856	0.621878	0.404796
0.653846	0.070255	0.041542	0.954243	0.412156
0.692308	0.071061	0.044260	1.326139	0.419516
0.730769	0.071869	0.047009	1.728554	0.426876
0.769231	0.072679	0.049788	2.152583	0.434236
0.807692	0.073492	0.052599	2.589127	0.441596
0.846154	0.074308	0.055442	3.028884	0.448956
0.884615	0.075126	0.058315	3.462517	0.456316
0.923077	0.075946	0.061221	3.880926	0.463676
0.961538	0.076769	0.064157	4.275612	0.471036
1.000000	0.077594	0.067126	4.639092	0.478395

END FTABLE 3

FTABLE 6

67 4

Depth (ft)	Area (acres)	Volume (acre-ft)	Outflow (cfs)	Velocity (ft/sec)	Travel Time*** (Minutes)***
0.000000	0.013154	0.000000	0.000000		
0.038462	0.013154	0.000192	0.000000		
0.076923	0.013154	0.000385	0.000000		
0.115385	0.013154	0.000577	0.000000		
0.153846	0.013154	0.000769	0.000000		
0.192308	0.013154	0.000961	0.000000		
0.230769	0.013154	0.001154	0.000000		
0.269231	0.013154	0.001346	0.000000		
0.307692	0.013154	0.001538	0.000000		
0.346154	0.013154	0.001730	0.000000		
0.384615	0.013154	0.001923	0.000000		
0.423077	0.013154	0.002115	0.002981		
0.461538	0.013154	0.002307	0.003495		
0.500000	0.013154	0.002499	0.004091		
0.538462	0.013154	0.002692	0.004771		
0.576923	0.013154	0.002884	0.005540		
0.615385	0.013154	0.003076	0.006401		
0.653846	0.013154	0.003268	0.007359		
0.692308	0.013154	0.003461	0.008416		
0.730769	0.013154	0.003653	0.009576		
0.769231	0.013154	0.003845	0.010842		
0.807692	0.013154	0.004037	0.012218		
0.846154	0.013154	0.004230	0.013705		
0.884615	0.013154	0.004422	0.015307		
0.923077	0.013154	0.004614	0.016886		
0.961538	0.013154	0.004806	0.017027		
1.000000	0.013154	0.004999	0.018867		
1.038462	0.013154	0.005191	0.020831		
1.076923	0.013154	0.005383	0.022920		
1.115385	0.013154	0.005575	0.025137		
1.153846	0.013154	0.005768	0.027484		
1.192308	0.013154	0.005960	0.029543		
1.230769	0.013154	0.006152	0.032580		
1.269231	0.013154	0.006344	0.033295		
1.307692	0.013154	0.006537	0.036648		
1.346154	0.013154	0.006729	0.038223		
1.384615	0.013154	0.006921	0.039708		
1.423077	0.013154	0.007113	0.042540		
1.461538	0.013154	0.007306	0.044429		
1.500000	0.013154	0.007516	0.045188		
1.538462	0.013154	0.007726	0.047685		

```

1.576923 0.013154 0.007936 0.050054
1.615385 0.013154 0.008146 0.052313
1.653846 0.013154 0.008355 0.054476
1.692308 0.013154 0.008565 0.056554
1.730769 0.013154 0.008775 0.058556
1.769231 0.013154 0.008985 0.058557
1.807692 0.013154 0.009195 0.060492
1.846154 0.013154 0.009405 0.062367
1.884615 0.013154 0.009615 0.065953
1.923077 0.013154 0.009825 0.069351
1.961538 0.013154 0.010035 0.072589
2.000000 0.013154 0.010245 0.075687
2.038462 0.013154 0.010455 0.078663
2.076923 0.013154 0.010665 0.081531
2.115385 0.013154 0.010875 0.084301
2.153846 0.013154 0.011085 0.086984
2.192308 0.013154 0.011295 0.088426
2.230769 0.013154 0.011505 0.088426
2.269231 0.013154 0.011715 0.088426
2.307692 0.013154 0.011925 0.088426
2.346154 0.013154 0.012135 0.088426
2.384615 0.013154 0.012345 0.088426
2.423077 0.013154 0.012555 0.088426
2.461538 0.013154 0.012765 0.088426
2.500000 0.013154 0.012975 0.088426
2.500000 0.013154 0.020283 0.088426

```

```

END FTABLE 6
FTABLE 5
27 5

```

Depth (ft)	Area (acres)	Volume (acre-ft)	Outflow1 (cfs)	Outflow2 (cfs)	Velocity (ft/sec)	Travel Time*** (Minutes)***
0.000000	0.013154	0.000000	0.000000	0.000000		
0.038462	0.013413	0.000511	0.000000	0.066319		
0.076923	0.013675	0.001032	0.000000	0.069720		
0.115385	0.013938	0.001563	0.000000	0.071421		
0.153846	0.014205	0.002104	0.000000	0.073121		
0.192308	0.014474	0.002656	0.000000	0.074822		
0.230769	0.014745	0.003217	0.000000	0.076522		
0.269231	0.015018	0.003790	0.000000	0.078223		
0.307692	0.015294	0.004373	0.000000	0.079923		
0.346154	0.015573	0.004966	0.000000	0.081624		
0.384615	0.015854	0.005571	0.000000	0.083324		
0.423077	0.016137	0.006186	0.000000	0.085025		
0.461538	0.016423	0.006812	0.000000	0.086725		
0.500000	0.016711	0.007449	0.000000	0.088426		
0.538462	0.017002	0.008098	0.120025	0.090126		
0.576923	0.017295	0.008757	0.339117	0.091827		
0.615385	0.017591	0.009428	0.621878	0.093527		
0.653846	0.017889	0.010110	0.954243	0.095228		
0.692308	0.018190	0.010804	1.326139	0.096928		
0.730769	0.018493	0.011510	1.728554	0.098629		
0.769231	0.018798	0.012227	2.152583	0.100329		
0.807692	0.019106	0.012956	2.589127	0.102030		
0.846154	0.019416	0.013697	3.028884	0.103730		
0.884615	0.019729	0.014449	3.462517	0.105431		
0.923077	0.020044	0.015214	3.880926	0.107131		
0.961538	0.020362	0.015991	4.275612	0.108832		
1.000000	0.020682	0.016781	4.639092	0.110532		

```

END FTABLE 5
END FTABLES

```

EXT SOURCES

<-Volume-> <Name>	<Member> # <Name>	SsysSgap tem	<--Mult--> strg	Tran <-factor--> strg	<-Target <Name>	vols #	<-Grp> #	<-Member--> <Name>	#	*** ***
WDM	2 PREC	ENGL	1.308		PERLND	1	999	EXTNL	PREC	
WDM	2 PREC	ENGL	1.308		IMPLND	1	999	EXTNL	PREC	
WDM	1 EVAP	ENGL	1		PERLND	1	999	EXTNL	PETINP	
WDM	1 EVAP	ENGL	1		IMPLND	1	999	EXTNL	PETINP	
WDM	2 PREC	ENGL	1.308		RCHRES	1		EXTNL	PREC	
WDM	2 PREC	ENGL	1.308		RCHRES	3		EXTNL	PREC	

WDM	2	PREC	ENGL	1.308	RCHRES	5	EXTNL	PREC
WDM	1	EVAP	ENGL	0.5	RCHRES	1	EXTNL	POTEV
WDM	1	EVAP	ENGL	0.7	RCHRES	2	EXTNL	POTEV
WDM	1	EVAP	ENGL	0.5	RCHRES	3	EXTNL	POTEV
WDM	1	EVAP	ENGL	0.7	RCHRES	4	EXTNL	POTEV
WDM	1	EVAP	ENGL	0.5	RCHRES	5	EXTNL	POTEV
WDM	1	EVAP	ENGL	0.7	RCHRES	6	EXTNL	POTEV
WDM	1	EVAP	ENGL	1	RCHRES	7	EXTNL	POTEV

END EXT SOURCES

EXT TARGETS

<-Volume->	<-Grp>	<-Member->	<--Mult-->	Tran	<-Volume->	<Member>	Tsys	Tgap	Amd	***	
<Name>	#	<Name>	#	<-factor->	strg	<Name>	#	<Name>	tem	strg	strg***
RCHRES	7	HYDR	RO	1	1	WDM	1004	FLOW	ENGL		REPL
RCHRES	7	HYDR	STAGE	1	1	WDM	1005	STAG	ENGL		REPL
COPY	1	OUTPUT	MEAN	1	1	WDM	701	FLOW	ENGL		REPL
COPY	501	OUTPUT	MEAN	1	1	WDM	801	FLOW	ENGL		REPL
COPY	601	OUTPUT	MEAN	1	1	WDM	901	FLOW	ENGL		REPL
RCHRES	2	HYDR	RO	1	1	WDM	1006	FLOW	ENGL		REPL
RCHRES	2	HYDR	STAGE	1	1	WDM	1007	STAG	ENGL		REPL
RCHRES	1	HYDR	STAGE	1	1	WDM	1008	STAG	ENGL		REPL
RCHRES	1	HYDR	O	1	1	WDM	1009	FLOW	ENGL		REPL

END EXT TARGETS

MASS-LINK

<Volume>	<-Grp>	<-Member->	<--Mult-->	<Target>	<-Grp>	<-Member->	***
<Name>	#	<Name>	#	<-factor->	<Name>	#	***
MASS-LINK		2					
PERLND	PWATER	SURO		0.083333	RCHRES	INFLOW	IVOL
END MASS-LINK		2					
MASS-LINK		3					
PERLND	PWATER	IFWO		0.083333	RCHRES	INFLOW	IVOL
END MASS-LINK		3					
MASS-LINK		5					
IMPLND	IWATER	SURO		0.083333	RCHRES	INFLOW	IVOL
END MASS-LINK		5					
MASS-LINK		6					
RCHRES	ROFLOW				RCHRES	INFLOW	
END MASS-LINK		6					
MASS-LINK		7					
RCHRES	OFLOW	OVOL	1		RCHRES	INFLOW	IVOL
END MASS-LINK		7					
MASS-LINK		8					
RCHRES	OFLOW	OVOL	2		RCHRES	INFLOW	IVOL
END MASS-LINK		8					
MASS-LINK		12					
PERLND	PWATER	SURO		0.083333	COPY	INPUT	MEAN
END MASS-LINK		12					
MASS-LINK		13					
PERLND	PWATER	IFWO		0.083333	COPY	INPUT	MEAN
END MASS-LINK		13					
MASS-LINK		15					
IMPLND	IWATER	SURO		0.083333	COPY	INPUT	MEAN
END MASS-LINK		15					
MASS-LINK		16					
RCHRES	ROFLOW				COPY	INPUT	MEAN
END MASS-LINK		16					
MASS-LINK		17					
RCHRES	OFLOW	OVOL	1		COPY	INPUT	MEAN

END MASS-LINK 17

END MASS-LINK

END RUN

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## Disclaimer

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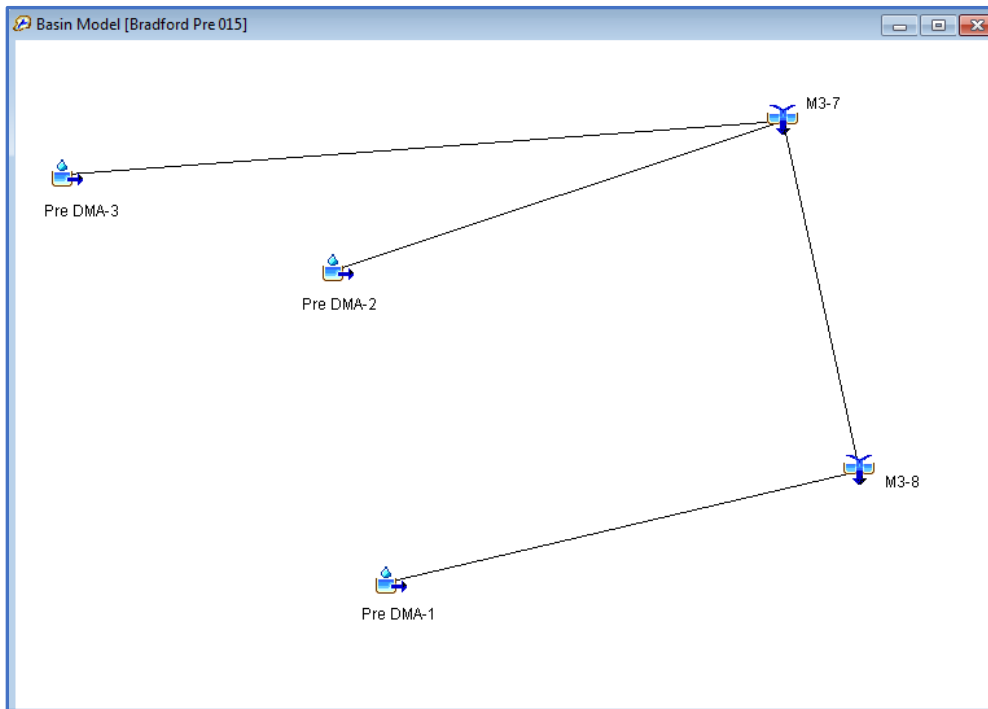
## **APPENDIX C**

### **Summary of HEC-HMS Model Output**



# Appendix C HEC-HMS Model Summary

## Pre-project Model Schematic



## Pre-project 15-year, 24-hour Storm

Global Summary Results for Run "Pre 015y 24h"

Project: Bradford Way Simulation Run: Pre 015y 24h

Start of Run: 01Jan2030, 00:00 Basin Model: Bradford Pre 015  
End of Run: 02Jan2030, 12:00 Meteorologic Model: 015y 24h  
Compute Time: 17Jul2020, 13:16:21 Control Specifications: 24-hour Control

Show Elements: All Elements Volume Units:  IN  AC-FT Sorting: Alphabetic

Hydrologic Element	Drainage Area (MI <sup>2</sup> )	Peak Discharge (CFS)	Time of Peak	Volume (AC-FT)
M3-7	0.02862	13.2	01Jan2030, 12:35	2.91
M3-8	0.04327	19.3	01Jan2030, 12:45	3.63
Pre DMA-1	0.01465	6.3	01Jan2030, 12:45	0.72
Pre DMA-2	0.01508	6.4	01Jan2030, 12:50	1.05
Pre DMA-3	0.01354	7.7	01Jan2030, 12:30	1.86

## Pre-project 100-year, 24-hour Storm

Global Summary Results for Run "Pre 100y 24h"

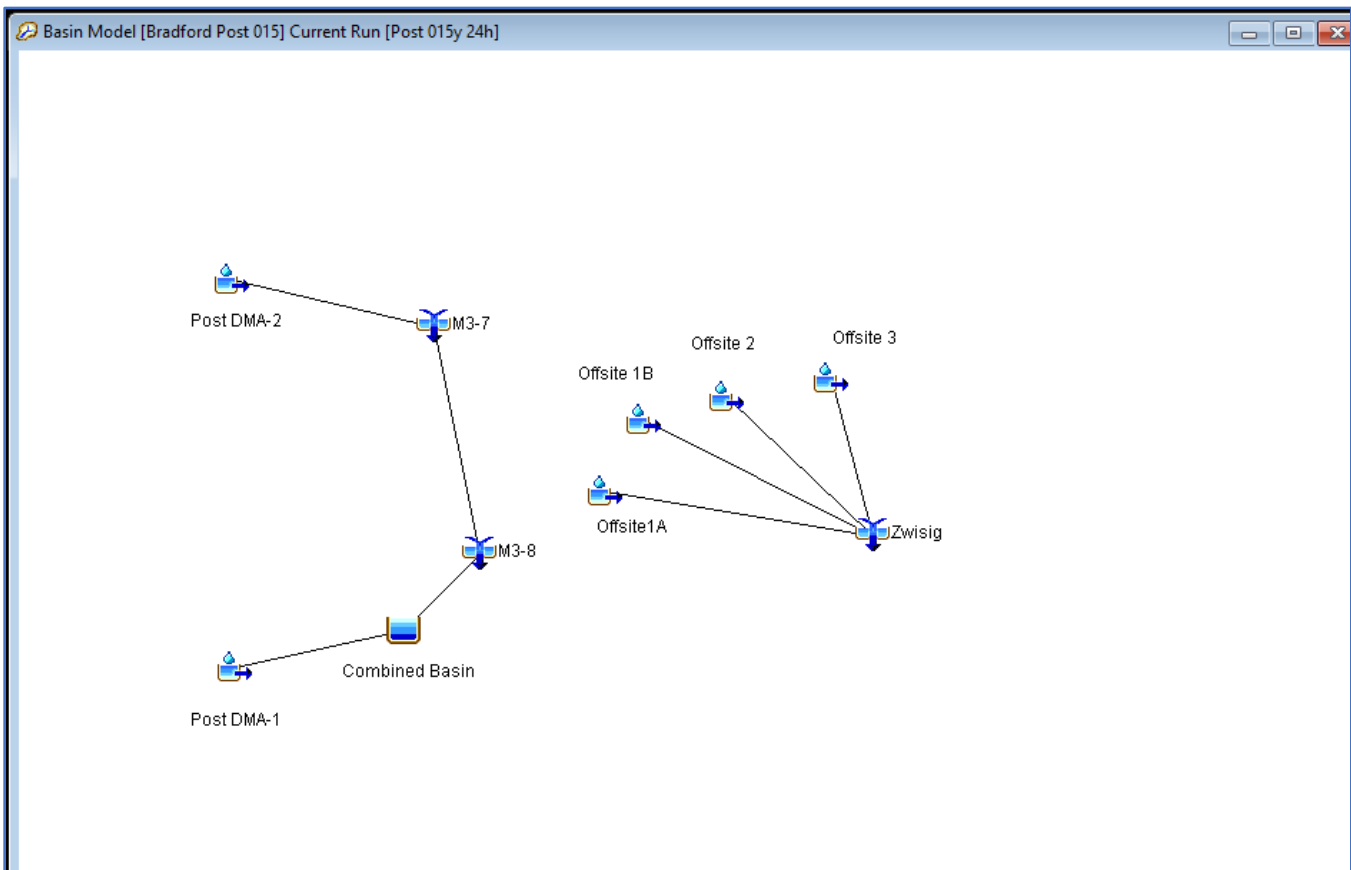
Project: Bradford Way Simulation Run: Pre 100y 24h

Start of Run: 01Jan2030, 00:00 Basin Model: Bradford Pre 100  
 End of Run: 02Jan2030, 12:00 Meteorologic Model: 100y 24h  
 Compute Time: DATA CHANGED, RECOMPUTE Control Specifications: 24-hour Control

Show Elements: All Elements Volume Units:  IN  AC-FT Sorting: Alphabetic

Hydrologic Element	Drainage Area (MI <sup>2</sup> )	Peak Discharge (CFS)	Time of Peak	Volume (AC-FT)
M3-7	0.02784	18.5	01Jan2030, 12:35	4.09
M3-8	0.04195	27.0	01Jan2030, 12:40	5.14
Pre DMA-1	0.01411	8.8	01Jan2030, 12:45	1.05
Pre DMA-2	0.01419	8.6	01Jan2030, 12:50	1.43
Pre DMA-3	0.01365	11.0	01Jan2030, 12:30	2.66

## Post-project Model Schematic





## Post-project 15-year, 24-hour Storm

Global Summary Results for Run "Post 015y 24h"

Project: Bradford Way Simulation Run: Post 015y 24h

Start of Run: 01Jan2030, 00:00 Basin Model: Bradford Post 015  
 End of Run: 02Jan2030, 12:00 Meteorologic Model: 015y 24h  
 Compute Time: DATA CHANGED, RECOMPUTE Control Specifications: 24-hour Control

Show Elements: All Elements Volume Units:  IN  AC-FT Sorting: Hydrologic

Hydrologic Element	Drainage Area (MI <sup>2</sup> )	Peak Discharge (CFS)	Time of Peak	Volume (AC-FT)
Offsite 1A	0.00	0.7	01Jan2030, 12:30	0.19
Offsite 1B	0.00	0.3	01Jan2030, 12:30	0.08
M3-7	0.00	2.3	01Jan2030, 12:30	0.62
Post DMA-1	0.04	22.8	01Jan2030, 12:30	5.82
Post DMA-2	0.00	2.3	01Jan2030, 12:30	0.62
Combined Basin	0.04	7.4	01Jan2030, 13:10	5.44
M3-8	0.04	9.0	01Jan2030, 12:45	6.06
Offsite 2	0.00	2.3	01Jan2030, 12:30	0.61
Offsite 3	0.00	2.6	01Jan2030, 12:30	0.73
Zwisig	0.01	5.9	01Jan2030, 12:30	1.62

## Post-project 100-year, 24-hour Storm

Global Summary Results for Run "Post 100y 24h"

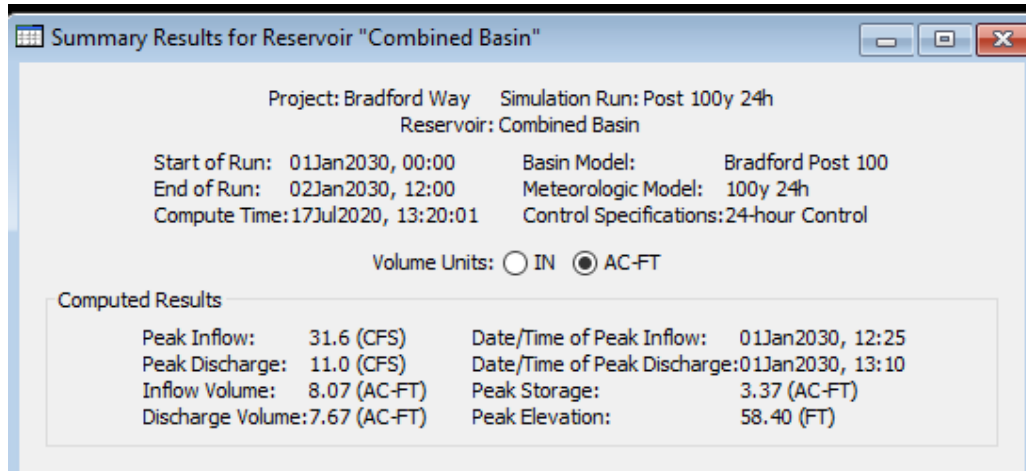
Project: Bradford Way Simulation Run: Post 100y 24h

Start of Run: 01Jan2030, 00:00 Basin Model: Bradford Post 100  
 End of Run: 02Jan2030, 12:00 Meteorologic Model: 100y 24h  
 Compute Time: 17Jul2020, 13:20:01 Control Specifications: 24-hour Control

Show Elements: All Elements Volume Units:  IN  AC-FT Sorting: Alphabetic

Hydrologic Element	Drainage Area (MI <sup>2</sup> )	Peak Discharge (CFS)	Time of Peak	Volume (AC-FT)
Combined Basin	0.03866	11.0	01Jan2030, 13:10	7.67
M3-7	0.00390	3.2	01Jan2030, 12:30	0.85
M3-8	0.04256	12.3	01Jan2030, 13:00	8.53
Post DMA-1	0.03866	31.6	01Jan2030, 12:30	8.08
Post DMA-2	0.00390	3.2	01Jan2030, 12:30	0.85

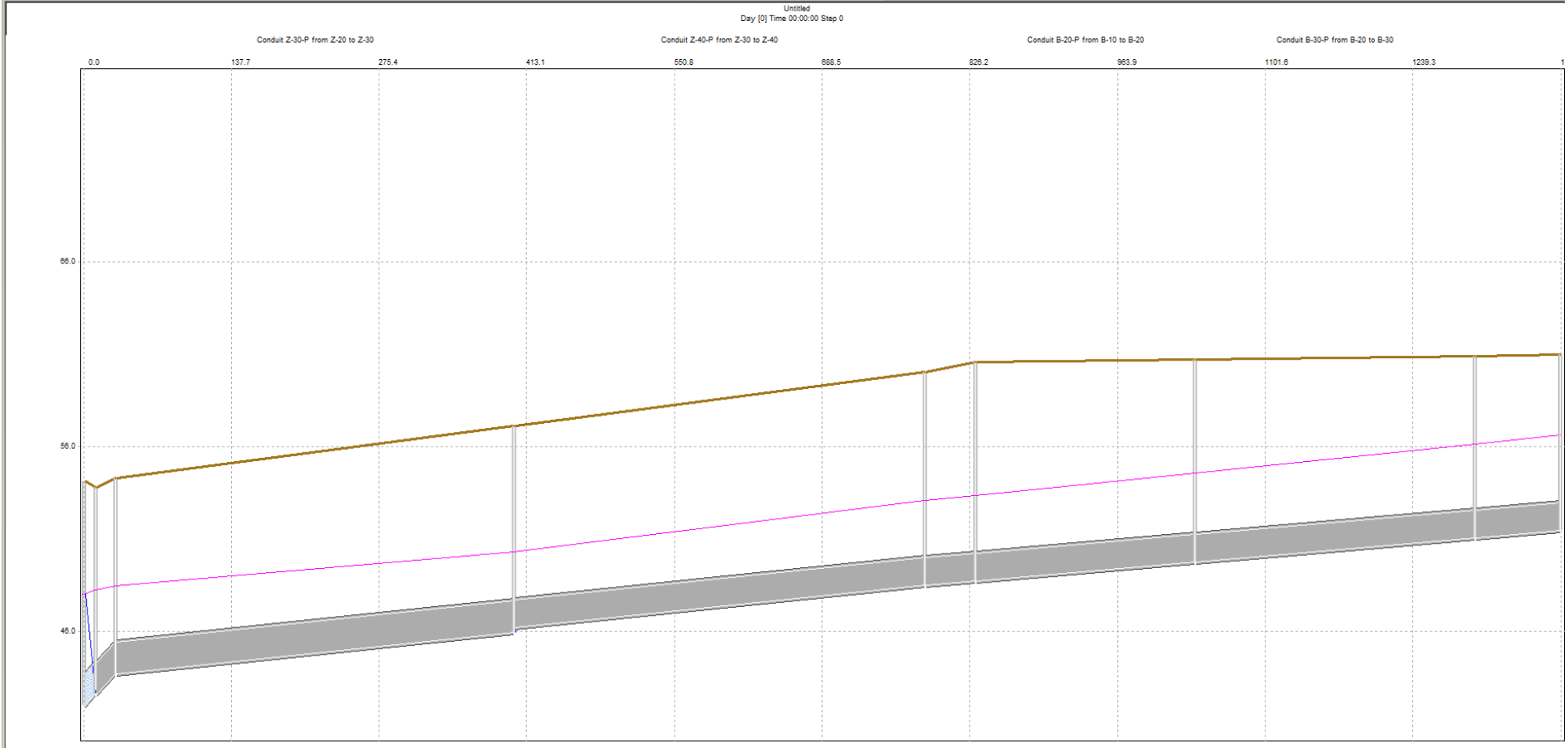
## Post-project 100-year Stormwater Basin Summary



## **APPENDIX D**

### **Zwissig Way Storm Drain Profile with Hydraulic Gradeline**







**Appendix 4.8-2**  
**LID Reduction Narrative Memorandum**







September 15, 2020  
Job No.: 1973-010

## MEMORANDUM

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**TO:** Farooq Azim, P.E., City Engineer  
City of Union City

**FROM:** Gordon Zanin, P.E., Principal - Carlson, Barbee & Gibson, Inc.

**CC:** Kevin Fryer – Integral Communities

**SUBJECT:** Station East – LID Reduction Narrative

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This Memorandum describes the approach used to treat the stormwater runoff produced by the proposed development by Integral Communities “Station East” located in the Station District. The applicant requests the use of Non-LID treatment measures under the Category “C” Special Projects provision in Appendix J of The Alameda County C.3 Stormwater Technical Guidance C.3 Handbook.

The Station East site meets all the requirements in Special project Category “C” - Transit Oriented Development. The site qualifies for a 45% LID reduction credit for being located within a planned Priority Development Area and has a gross density greater than 30 du/ac, as well as a 10% or less percentage of total post-project impervious surface parking. The site has been optimized to treat as much stormwater as practicable, and the project is requesting a 45% LID reduction credit. See attachments for details.

100% LID use is infeasible for the site both technically and economically. The area required to provide such on-site treatment would impact the ability of the project to meet critical project and City goals for the transit-oriented development including hitting key density goals while still providing significant on-site parks and open spaces. The County and the Stormwater Permit allow higher density, transit-oriented developments to have stormwater LID reduction credits due to the high-density nature and space constraints of the projects. Site constraints include: reduced site setbacks, large stormwater detention basins to satisfy local hydromodification and detention requirements, utility and tree conflicts, significant cost to incorporate raised planters throughout the site, significant costs to deepen numerous portions of the building foundation and curbs, additional geotechnical considerations, additional structural costs and considerations, and additional monitoring and maintenance concerns. Due to the above-mentioned items, 100% LID stormwater treatment is infeasible for this project.

On-site LID treatment has been optimized throughout the project. Multiple drainage management areas have been created to treat runoff from proposed public streets within small bioretention areas, like those already implemented by the City. It should be noted that the at-grade surface parking detailed in Attachment 2 will be routed to LID treatment areas within the public right of way.

Areas where LID treatment are infeasible include dense, large buildings with insufficient space available for bioretention treatment that meet the sizing requirements. LID treatment is also infeasible here due to minimum spacing requirements between utilities and landscaping. Overall, these factors limit the available area where LID treatment would typically be placed.

The proposed site plan includes community parks and a paseo where LID treatment could be placed. However, doing so would require dual storm drain pipes within the public roads to convey the untreated stormwater and therefore is economically infeasible. Furthermore, LID treatment in the proposed community park and paseos would limit the usable open space and would reduce the amenities for the residents as well as add maintenance costs for the additional storm pipes. Park and paseo design are not yet complete, however alternative methods to reduce treatment such as self treating areas, self retaining areas and reduced impervious surfaces will be implemented to the extent feasible once park design and features are finalized.

The project also proposes to construct stormwater treatment facilities for the north side of existing Bradford Way (along the project frontage). Conceptual design of stormwater treatment facilities for the south side of existing Bradford Way along with the future extension of proposed L Street & M Street are included with the tentative map submittal package. The project does not propose to construct the improvements shown on the conceptual design for L & M Street extension and the south side of Bradford Way due to insufficient right of way availability.

The applicant also looked at providing stormwater treatment facilities for Decoto Road & 7<sup>th</sup> Street, but due to lack of existing storm drain facilities, existing utility conflicts and high traffic volumes, it was determined to be infeasible.

The Station East project lies within the Station District Specific Plan currently being developed by the City. The Station District is a transit-oriented community with new retail, public amenities, high density housing and job centers on approximately 293 acres.

Section J.6.2 of the Alameda County C.3 Stormwater Technical Guidance Handbook allows for off-site LID treatment of an equivalent amount of runoff as an alternative. The project lies within the Lower Alameda Creek Watershed. The applicant verified with the local Clean Water Program that no regional projects currently exist in the same watershed; therefore, alternative compliance is not feasible.

The project has incorporated stormwater treatment to the maximum extent practicable. The preliminary stormwater calculations have 55.6% of the site being treated via LID treatment measures and 44.4% of the site being treated by non-LID treatment devices, such as TAPE/GULD certified media filters. The site is proposing to treat approximately 0.6% more stormwater via bioretention areas than required (per the applicable LID reduction credits).

The applicant is requesting that the City of Union City approve the use of non-LID treatment measures to treat approximately 44.4% of the site as a result of being classified as Category C Special Project per Appendix J of the Alameda County C.3 Handbook and given the site constraints mentioned in this Memo.

**Attachments**

1. Special Projects Worksheet
2. LID Treatment Reduction Exhibit





## MRP 2.0 Special Projects Worksheet

Complete this worksheet for projects that appear to meet the definition of "Special Project", per Provision C.3.e.ii of the Municipal Regional Stormwater Permit (MRP 2.0). The form assists in determining whether a project meets Special Project criteria, and the percentage of low impact development (LID) treatment reduction credit. Special Projects that implement less than 100% LID treatment must provide a narrative discussion of the feasibility or infeasibility of 100% LID treatment. See Appendix J of the C.3 Technical Guidance (excerpt attached, download at [www.cleanwaterprogram.com](http://www.cleanwaterprogram.com)) for more information.

Project Name: STATION EAST

Project Address: 34300 ZWISSIG WAY, 33950 7TH ST, 33955 7TH ST, DECOTO RD & 7TH ST

Applicant/Developer Name: INTEGRAL COMMUNITIES, KEVIN FRYER

**1. "Special Project" Determination** (Check the boxes to determine if the project meets any of the following categories.)

Special Project Category "A"

Does the project have ALL of the following characteristics?

- Located in a municipality's designated central business district, downtown core area or downtown core zoning district, neighborhood business district or comparable pedestrian-oriented commercial district, or historic preservation site and/or district<sup>1</sup>;
- Creates and/or replaces 0.5 acres or less of impervious surface;
- Includes no surface parking, except for incidental parking for emergency vehicle access, ADA access, and passenger or freight loading zones;
- Has at least 85% coverage of the entire site by permanent structures. The remaining 15% portion of the site may be used for accessory uses<sup>2</sup>.
  - No (continue)                       Yes – complete Section 2 of the Special Project Worksheet

Special Project Category "B"

Does the project have ALL of the following characteristics?

- Located in a municipality's designated central business district, downtown core area or downtown core zoning district, neighborhood business district or comparable pedestrian-oriented commercial district, or historic preservation site and/or district<sup>1</sup>;
- Creates and/or replaces more than 0.5 acres of impervious area and less than 2.0 acres;
- Includes no surface parking, except for incidental parking for emergency access, ADA access, and passenger or freight loading zones;
- Has at least 85% coverage of the entire site by permanent structures. The remaining 15% portion of the site may be used for accessory<sup>2</sup> uses;
- Minimum Gross Density<sup>3</sup> (GD) of either 50 dwelling units (DU) per acre (for residential projects) or a Floor Area Ratio<sup>4</sup> (FAR) of 2:1 (for commercial). Either criterion can be used for mixed use projects.
  - No (continue)                       Yes – complete Section 2 of the Special Project Worksheet

Special Project Category "C"

Does the project have ALL of the following characteristics?

- At least 50% of the project area is within 1/2 mile of an existing or planned transit hub<sup>5</sup> or 100% within a planned Priority Development Area<sup>6</sup>;
- The project is characterized as a non-auto-related use<sup>7</sup>; and
- Minimum GD of 25 DU per acre (residential) or a FAR of 2:1 (commercial). Either criterion for mixed use.
  - No                                               Yes – complete Section 2 of the Special Project Worksheet

<sup>1</sup> And built as part of a municipality's stated objective to preserve/enhance a pedestrian-oriented type of urban design.

<sup>2</sup> Accessory Uses: safety access, parking structure entrances, trash and recycling service, utility access, pedestrian connections, public uses, landscaping and stormwater treatment.

<sup>3</sup> Gross Density (GD) – The total number of residential units divided by the acreage of the entire site area, including land occupied by public right-of-ways, recreational, civic, commercial and other non-residential uses.

<sup>4</sup> Floor Area Ratio (FAR) – The Ratio of the total floor area on all floors of all buildings at a project site (except structures, floors, or floor areas dedicated to parking) to the total project site area.

<sup>5</sup> "Transit hub" is defined as a rail, light rail, or commuter rail station, ferry terminal, or bus transfer station served by three or more bus routes. (A bus stop with no supporting services does not qualify.)

<sup>6</sup> A "planned Priority Development Area" (PDA) is an infill development area formally designated by the Association of Bay Area Government's / Metropolitan Transportation Commission's FOCUS regional planning program.

<sup>7</sup> Category C specifically excludes stand-alone surface parking lots; car dealerships; auto and truck rental facilities with onsite surface storage; fast-food restaurants, banks or pharmacies with drive-through lanes; gas stations; car washes; auto repair and service facilities; or other auto-related project unrelated to the concept of transit oriented development.

## Special Projects Worksheet (continued)

**2. LID Treatment Reduction Credit Calculation** (If more than one category applies, choose only one of the applicable categories and fill out the table for that category.)

Category	Impervious Area Created/Replaced (sq. ft.)	Site Coverage (%)	Project Density or FAR	Density/Criteria	Allowable Credit (%)	Applied Credit (%)
A			N.A.	N.A.	100%	
B				Res ≥ 50 DU/ac or FAR ≥ 2:1	50%	
				Res ≥ 75 DU/ac or FAR ≥ 3:1	75%	
				Res ≥ 100 DU/ac or FAR ≥ 4:1	100%	
C				<b>Location credit (select one)<sup>8</sup>:</b>		
				Within ¼ mile of transit hub	50%	
				Within ½ mile of transit hub	25%	
				Within a planned PDA	25%	25%
				<b>Density credit (select one):</b>		
				Res ≥ 30 DU/ac or FAR ≥ 2:1	10%	10%
				Res ≥ 60 DU/ac or FAR ≥ 4:1	20%	
				Res ≥ 100 DU/ac or FAR ≥ 6:1	30%	
				<b>Parking credit (select one):</b>		
				≤ 10% at-grade surface parking <sup>9</sup>	10%	10%
				No surface parking	20%	
<b>TOTAL TOD CREDIT =</b>					<b>45%</b>	

**3. Narrative Discussion of the Feasibility/Infeasibility of 100% LID Treatment:**

If project will implement less than 100% LID, prepare a discussion of the feasibility or infeasibility of 100% LID treatment, as described in Appendix J of the C.3 Technical Guidance (excerpt attached), discussing both technical and economic feasibility/infeasibility. The infeasibility of 100% LID treatment must be established prior to approval of any non-LID treatment.

**4. Select Certified Non-LID Treatment Measures:**

If the project will include non-LID treatment measures, select a treatment measure certified by a government agency, such as the “Basic” General Use Level Designation (GULD) by the Washington State Department of Ecology’s Technical Assessment Protocol – Ecology (TAPE). Guidance is provided in Section Appendix J of the C.3 Technical Guidance (download at [www.cleanwaterprogram.com](http://www.cleanwaterprogram.com) – excerpt attached).<sup>10</sup> If a different certification program is used, specify the design operating rate for which the product received the relevant certification.

**Special Projects Worksheet Completed by:**

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

<sup>8</sup> To qualify for the location credit, at least 50% of the project’s site must be located within the ¼ mile or ½ mile radius of an existing or planned transit hub, as defined on page 1, footnote 2. A planned transit hub is a station on the MTC’s Regional Transit Expansion Program list, per MTC’s Resolution 3434 (revised April 2006), which is a regional priority funding plan for future transit stations in the San Francisco Bay Area. To qualify for the PDA location credit, 100% of the project site must be located within a PDA, as defined on page 1, footnote 3.

<sup>9</sup> The at-grade surface parking must be treated with LID treatment measures.

<sup>10</sup> TAPE certification is used in order to satisfy Special Project’s reporting requirements in the MRP.

**Special Projects Worksheet (continued)**

Print or Type Name



## Attachment 1

### Excerpts from Appendix J of the C.3 Technical Guidance

#### J.6 LID Infeasibility Requirement for Special Projects

In order to be considered a Special Project, in addition to documenting that all applicable criteria for one of the above-described Special Project categories have been met, the applicant must provide a narrative discussion of the feasibility or infeasibility of using 100 percent LID treatment onsite, offsite, or at a Regional Project. The narrative discussion is required to address the following:

1. The infeasibility of treating 100% of the amount of runoff identified in Provision C.3.d for the Regulated Project's drainage area with LID treatment measures onsite;
2. The infeasibility of treating 100% of the amount of runoff identified in Provision C.3.d for the Regulated Project's drainage area with LID treatment measures offsite or paying in-lieu fees to treat 100% of the Provision C.3.d runoff with LID treatment measures at an offsite or Regional Project; and
3. The infeasibility of treating 100% of the amount of runoff identified in Provision C.3.d for the Regulated Project's drainage area with some combination of LID treatment measures onsite, offsite, and/or paying in-lieu fees towards at an offsite or Regional Project.

The discussion is required to contain enough technical and/or economic detail to document the basis of any infeasibility that is determined.

##### J.6.1 On-site LID Treatment

The narrative discussion should describe how the routing of stormwater runoff has been optimized to route as much runoff as possible to LID treatment measures. A discussion should also be provided for each area of the site for which runoff must be treated with non-LID treatment measures, and should include the following:

1. Uses of impervious surfaces that preclude the use of LID treatment; and
2. Technical constraints that preclude the use of any landscaped areas for LID treatment, such as:
  - a. Inadequate size to accommodate biotreatment facilities that meet the sizing requirements for the drainage area;
  - b. Slopes too steep to terrace;
  - c. Proximity to an unstable bank or slope;
  - d. Environmental constraints (e.g., landscaped area is within riparian corridor);
  - e. High groundwater or shallow bedrock;
  - f. Conflict with subsurface utilities;
  - g. Cap over polluted soil or groundwater;
  - h. Lack of head or routing path to move collected runoff to the landscaped area or from the landscaped area to the disposal point;
  - i. Other conflicts or required uses that preclude use for stormwater treatment (explain).



## Special Projects Worksheet – Attachment 1 (continued)

### J.6.2 Off-site LID Treatment.

The applicant must demonstrate to the municipality performing the project review that it is infeasible to provide LID treatment of an equivalent amount of runoff offsite either by paying in-lieu fees to a regional project or on other property owned by the project proponent in the same watershed (in other words, that alternative compliance, as described in Chapter 9, is infeasible).

Check with the local municipality to determine if there are any regional projects available for alternative compliance purposes (at the time of completion of this Appendix, there were none in Alameda County). These considerations should be documented in the narrative discussion of the feasibility and infeasibility of providing 100% LID treatment.

### J.6.3 Combination of On-site and Off-site LID Treatment

The applicant must also demonstrate to the municipality performing the project review that it is infeasible to provide LID treatment of 100% of the amount of runoff specified in Provision C.3.d with some combination of LID measures on-site, offsite, and or paying in-lieu fees to a regional project.

After determining the extent to which stormwater runoff can be optimized to route as much runoff as possible to LID treatment measures, if that amount is less than 100%, and if there are no options to provide LID treatment off-site on a property owned by the project proponent in the same watershed, check with the municipality to determine if there are any regional projects available for alternative compliance purposes for the remainder of the C.3.d amount of runoff. These considerations should be documented in the narrative discussion of the feasibility and infeasibility of providing 100% LID treatment.

### J.7 Select Non-LID Treatment Measures Certified by a Government Agency

MRP Provision C.3.e.vi.(3)(i) requires municipalities to report to the Regional Water Board, for each non-LID treatment measure that the municipality approves, “whether the treatment system either meets minimum design criteria published by a government agency or received certification issued by a government agency, and reference the applicable criteria or certification.”

For Special Projects that are allowed to use non-LID treatment measures, applicants are advised to use treatment measures that have been certified by the Washington State Department of Ecology’s Technical Assessment Protocol – Ecology (TAPE), under General Use Level Designation (GULD) for Basic Treatment.<sup>11</sup> You can identify proprietary media filters and high flow rate tree well filters currently holding this certification at the following link: <http://www.ecy.wa.gov/programs/wq/stormwater/newtech/technologies.html>.

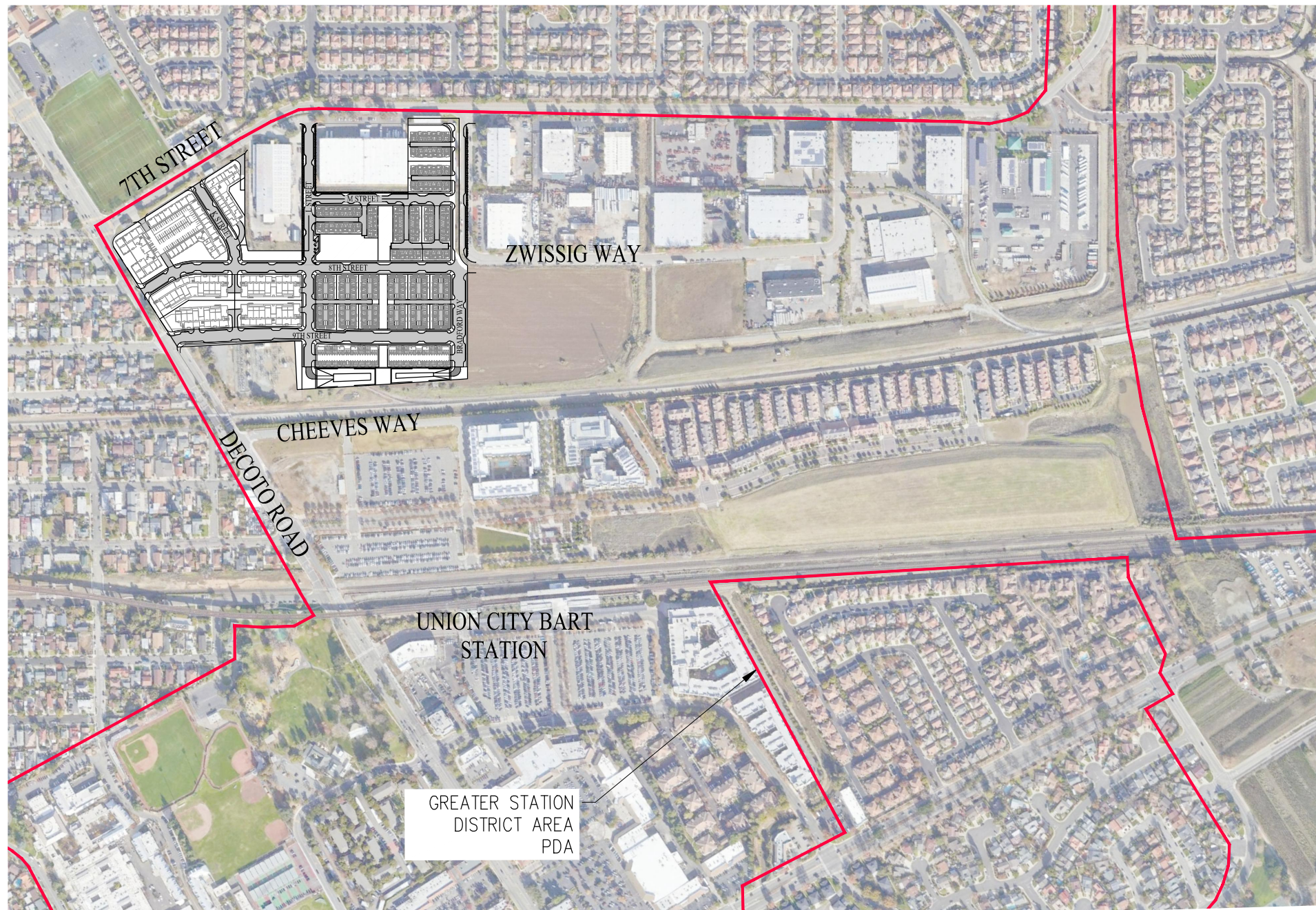
The municipality may require that any non-LID treatment measures used in a Special Project be TAPE-certified, or the municipality may allow the use of non-LID treatment measures certified by another governmental program.

If the TAPE system is used, treatment measures must be sized based on the hydraulic sizing criteria specified in MRP Provision C.3.d and the design operating rate for which the product received TAPE GULD certification for Basic Treatment. If a different certification program is used, specify the design operating rate for which the product received the relevant certification.

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<sup>11</sup> “General Use” is distinguished from a pilot or conditional use designation. “Basic Treatment” is distinguished from treatment effectiveness for phosphorus removal. Basic treatment is intended to achieve 80 percent removal of total suspended solids (TSS) for influent concentrations from 100 mg/L to 200 mg/L TSS and achieve 20 mg/L TSS for less heavily loaded influents.





### CATEGORY C SPECIAL PROJECT CREDITS

- LOCATION CREDIT  
WITHIN A PLANNED PDA 25%
  - DENSITY CREDIT  
PROJECT GROSS DENSITY IS GREATER THAN  
30 DWELLING UNIT PER ACRE 10%
  - MINIMIZED SURFACE PARKING CREDIT  
LESS THAN 10% OF PROPOSED IMPERVIOUS  
SURFACE IS DEDICATED TO AT-GRADE  
SURFACE PARKING 10%
- TOTAL 45%

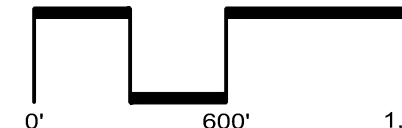
SURFACE PARKING	
STREET	PARKING SPACES
8TH STREET	71
9TH STREET	56
K STREET	18
L STREET	39
M STREET	23
BRADFORD WAY	30
TOTAL	237

PARKING SPACE DIMENSIONS (22'x8')  
 PARKING SPACE AREA = 176 SF  
 TOTAL PARKING SPACE AREA = 176 SF X 237 SPACES = 41,712 SF  
 TOTAL IMPERVIOUS AREA = 766,502 SF  
 PERCENTAGE OF IMPERVIOUS SURFACE DEDICATED TO PARKING = 5.4%

## LID TREATMENT REDUCTION STATION EAST

CITY OF UNION CITY ALAMEDA COUNTY CALIFORNIA

SCALE: 1" = 300' DATE: AUGUST 2020



SAN RAMON (925) 866-0322  
 SACRAMENTO (916) 375-1877  
 WWW.CBANDG.COM

CIVIL ENGINEERS ■ SURVEYORS ■ PLANNERS

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**Appendix 4.8-3  
Zwissig Way Storm Drain Memo**



**MEMO**

To: Gordon Zanin, P.E. (Carlson, Barbee & Gibson)  
From: Edward D. Ballman, P.E.  
Date: October 16, 2020

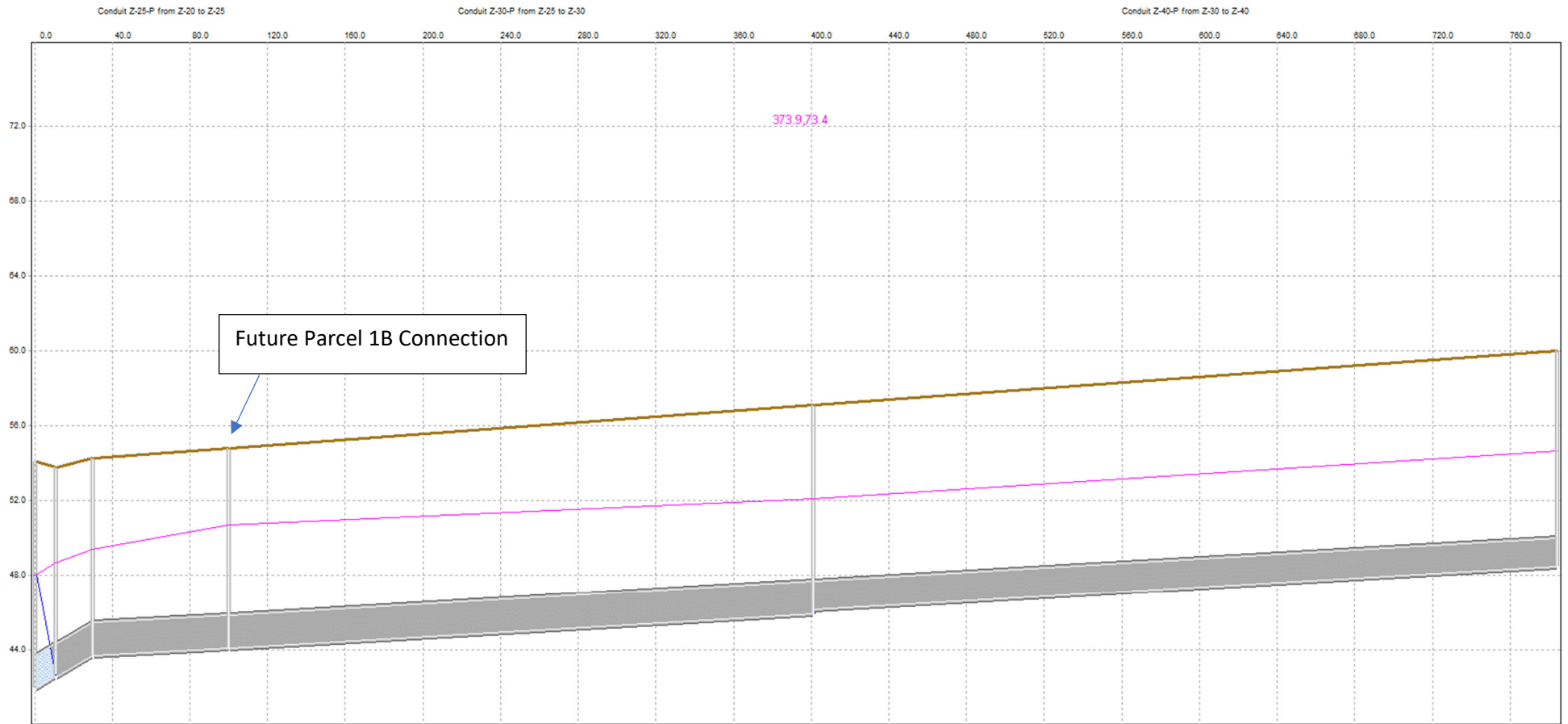
**Subject: Additional Hydraulic Modeling of the Existing Zwissig Way Storm Drain Line, City of Union City**

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Per your recent request, Balance staff have completed additional hydraulic modeling runs of the existing Zwissig Way storm drain line that conveys runoff from portions of the proposed Station East Project in the City of Union City. Earlier hydraulic modeling, summarized in our revised letter report dated September 1, 2020, demonstrated that the existing storm drain line could indeed convey the predicted 15-year design storm peak flow rates with freeboard.

However, the earlier modeling efforts did not include the parcel immediately south of Zwissig Way and west of the Flood Control Line M-3 (“Parcel 1B”). This left some question as to whether the excess freeboard found in the model runs would be enough to accommodate the additional runoff from Parcel 1B when it develops. Therefore, the modeling was updated to explicitly include runoff from that parcel. As a first approximation of future conditions, development was assumed over 7.4 acres with a net impervious cover of 85%. Development of Parcel 1B will almost certainly require construction of water-quality and hydromodification management facilities along the lines of those in the Station East Project. Such facilities would function to reduce peak flow rates. However, no specific land plans are available, so the modeling assumed that the full unattenuated hydrograph for the 15-year design storm would need to be accommodated by the Zwissig line. This hydrograph has a peak flow rate of 9.6 cfs. The connection point was assumed to be a new manhole that would be constructed approximately 70 feet west of the Line M-3 channel. Modeling was carried out using the XPStorm software platform, with the new connection point labeled as Node Z-25.

The resulting maximum hydraulic gradeline is illustrated in Figure 1 on the following page and shows that even the full unattenuated peak flow rate from Parcel 1B can be accommodated in the existing line. The minimum predicted freeboard (to manhole rim) in the future case is on the order of 4 feet or more. Inclusion of stormwater management facilities can readily be assumed to reduce peak flow rates from those used here, which would reduce HGL values for the conditions examined.



**Figure 1. Predicted maximum hydraulic gradeline in the Zwissig Way storm drain line with the Station East Project and future development of the adjacent Parcel 1B.**



**Appendix 4.10**  
**Noise Measurement Dataset**



LT-1

Rec 1 to 50		Slow Response		dBA weighting		2.0 dB resolution stats													
Date hh:mm:ss	LeqPeriod	Leq	SEL	Lmax	Lmin	L1%	L5%	L10%	L50%	L90%	L95%	L99%	Lmedian	Lmean	StdDev	L2%	L8%	L25%	
2/24/2020 10:44	1.0 hour		70	105.6	92.7	45.9	79	73	71	67	55	51	47	67	64.8	6.57	75	73	69
2/24/2020 11:44	1.0 hour		72.2	107.8	100.7	45.3	77	73	71	67	55	51	47	67	64.9	6.71	75	73	69
2/24/2020 12:44	1.0 hour		70.9	106.5	92.5	43.4	79	73	71	67	55	51	45	67	65.2	6.88	75	73	69
2/24/2020 13:44	1.0 hour		69.6	105.2	88.6	43.7	75	73	73	67	55	51	45	67	65.1	6.92	75	73	69
2/24/2020 14:44	1.0 hour		70.2	105.8	85.5	44.6	77	73	73	67	57	53	47	67	66.5	6.07	75	73	71
2/24/2020 15:44	1.0 hour		70.4	106	88.6	44.4	77	73	73	67	57	53	47	67	66.4	6.03	75	73	71
2/24/2020 16:44	1.0 hour		70.3	105.9	88.4	44	77	73	73	67	57	53	47	67	66.2	6.04	75	73	71
2/24/2020 17:44	1.0 hour		69.5	105.1	86.7	44.1	75	73	71	67	57	55	47	67	65.8	5.75	75	73	69
2/24/2020 18:44	1.0 hour		69	104.6	92.5	43.4	75	71	71	65	55	51	45	65	64.2	6.49	73	71	69
2/24/2020 19:44	1.0 hour		67.5	103.1	84.7	45.9	75	71	71	63	51	49	47	63	62.3	6.97	73	71	67
2/24/2020 20:44	1.0 hour		66	101.6	79.2	46	73	71	69	63	49	47	45	63	60.9	7.01	73	69	67
2/24/2020 21:44	1.0 hour		65.7	101.3	86.4	45.7	73	69	69	61	49	47	45	61	60.1	6.99	71	69	65
2/24/2020 22:44	1.0 hour		63.3	98.9	85.7	44.1	73	69	67	55	47	45	45	55	55.6	7.74	71	67	63
2/24/2020 23:44	1.0 hour		60.1	95.7	82	42.2	69	67	63	47	43	43	41	47	50.8	7.99	69	65	57
2/25/2020 0:44	1.0 hour		57.9	93.5	79.7	42.7	69	65	61	45	43	43	43	45	48.7	6.95	67	63	51
2/25/2020 1:44	1.0 hour		57.8	93.4	80.8	42.4	69	63	59	45	43	43	43	45	48	6.79	67	61	49
2/25/2020 2:44	1.0 hour		57.5	93.1	74.6	42.3	69	65	59	45	43	43	41	45	48.5	6.54	67	61	49
2/25/2020 3:44	1.0 hour		62.7	98.3	76.1	44.6	73	69	67	51	47	47	45	51	54.5	7.75	71	67	61
2/25/2020 4:44	1.0 hour		67.3	102.9	86.1	47.3	75	71	71	61	51	49	47	61	60.9	7.6	73	71	67
2/25/2020 5:44	1.0 hour		69.5	105.1	84.4	49.7	75	73	73	67	55	53	51	67	65.1	6.25	75	73	71
2/25/2020 6:44	1.0 hour		70.7	106.3	88.7	52.4	77	73	73	69	59	57	53	69	67.3	5.12	75	73	71
2/25/2020 7:44	1.0 hour		70.4	106	81.8	47.9	75	73	73	69	61	59	51	69	67.5	4.91	75	73	71
2/25/2020 8:44	1.0 hour		68.4	104	82.2	43.3	75	73	71	65	53	51	47	65	64.1	6.71	73	71	69
2/25/2020 9:44	1.0 hour		69.1	104.7	95.4	41.1	75	71	71	65	53	49	45	65	63	7.1	73	71	67
2/25/2020 10:44	1.0 hour		69.3	104.9	90.8	43.9	77	73	71	65	53	49	45	65	63.5	6.92	75	71	69
2/25/2020 11:44	1.0 hour		67.9	103.5	80.2	42.3	75	71	71	65	53	51	45	65	63.6	6.52	73	71	69
2/25/2020 12:44	1.0 hour		67.4	103	84.9	41.1	75	71	71	65	53	49	45	65	62.8	6.82	73	71	67
2/25/2020 13:44	1.0 hour		73.1	108.7	88.3	41.1	81	79	79	67	57	51	45	67	66.1	7.86	81	79	71
2/25/2020 14:44	1.0 hour		69.6	105.2	85.4	43.7	77	73	71	67	57	53	47	67	65.5	6.11	75	73	69
2/25/2020 15:44	1.0 hour		71.3	106.9	92.4	44.4	81	73	73	67	59	55	47	67	66.6	5.9	77	73	71
2/25/2020 16:44	1.0 hour		70.7	106.3	94.4	46.7	77	73	73	67	59	55	49	67	66.7	5.57	75	73	71
2/25/2020 17:44	1.0 hour		69.7	105.3	88.5	43.7	77	73	71	67	57	53	47	67	65.7	6.03	75	71	69
2/25/2020 18:44	1.0 hour		67.9	103.5	82.1	47.9	73	71	71	65	57	53	49	65	64.5	5.53	73	71	69
2/25/2020 19:44	1.0 hour		67.8	103.4	90.5	46.7	73	71	71	65	53	51	47	65	63.3	6.35	73	71	67
2/25/2020 20:44	1.0 hour		66.1	101.7	81	47.9	73	71	69	63	51	49	47	63	61.2	6.65	71	69	67
2/25/2020 21:44	1.0 hour		68.9	104.5	94.6	46.6	77	71	69	61	49	49	47	61	60	7.42	73	69	65
2/25/2020 22:44	1.0 hour		62.1	97.7	80.2	44	71	67	65	55	47	45	43	55	55.2	7.42	69	67	61
2/25/2020 23:44	1.0 hour		61.2	96.8	79.3	43.4	71	67	65	51	45	45	43	51	53	7.77	69	65	59
2/26/2020 0:44	1.0 hour		59	94.6	78.1	42.3	69	65	61	45	43	43	41	45	49.1	7.46	69	63	53
2/26/2020 1:44	1.0 hour		56.9	92.5	74.7	42.3	69	63	59	45	43	43	43	45	47.9	6.45	67	61	49
2/26/2020 2:44	1.0 hour		59	94.6	84.4	41.1	69	65	61	45	41	41	41	45	47.7	7.24	67	61	51
2/26/2020 3:44	1.0 hour		62.2	97.8	80.6	41.1	71	69	67	49	43	43	41	49	52.7	8.74	71	67	61
2/26/2020 4:44	1.0 hour		66.7	102.3	81.3	47	75	71	71	61	49	49	47	61	60.5	7.72	73	71	67
2/26/2020 5:44	1.0 hour		69.2	104.8	85.4	50.2	75	73	71	67	55	53	51	67	65	6.02	75	73	69
2/26/2020 6:44	1.0 hour		70.8	106.4	89.7	52	77	73	73	69	59	57	53	69	67.1	5.4	75	73	71
2/26/2020 7:44	1.0 hour		70.1	105.7	84.3	45.1	77	73	73	67	61	57	49	67	66.8	5.43	75	73	71
2/26/2020 8:44	1.0 hour		71.5	107.1	98	44.3	77	73	71	67	53	51	47	67	64.8	7.04	75	73	69

2/26/2020 9:44 1.0 hour	68.7	104.3	86.7	41.5	75	73	71	65	53	49	45	65	64	7.11	73	71	69
2/26/2020 10:44 1.0 hour	69.7	105.3	96.5	43.6	75	73	71	65	53	49	45	65	63.7	7.04	75	71	69
2/26/2020 11:44 59.1 min	71.3	106.8	96	43.2	81	73	71	65	55	49	45	65	64.5	7.18	77	73	69

LT-2

Rec 1	Slow Response	dBA weighting		2.0 dB resolution stats															
Date hh:mm:ss	LeqPeriod	Leq	SEL	Lmax	Lmin	L1%	L5%	L10%	L50%	L90%	L95%	L99%	Lmedian	Lmean	StdDev	L2%	L8%	L25%	
2/24/2020 11:41	6 sec		78.4	86.2	84	46.8	83	83	81	75	71	69	63.1	75	75.2	4.72	83	81	79

Rec 2 to 51	Slow Response	dBA weighting		2.0 dB resolution stats															
Date hh:mm:ss	LeqPeriod	Leq	SEL	Lmax	Lmin	L1%	L5%	L10%	L50%	L90%	L95%	L99%	Lmedian	Lmean	StdDev	L2%	L8%	L25%	
2/24/2020 11:42	1.0 hour		71	106.6	89.8	42.2	81	77	75	63	49	47	43	63	62.2	9.23	79	75	69
2/24/2020 12:42	1.0 hour		70.1	105.7	85.3	42.6	79	75	73	63	51	49	45	63	62.8	8.55	77	75	69
2/24/2020 13:42	1.0 hour		69.7	105.3	86	43	79	75	73	61	49	47	43	61	61.5	9.04	77	73	69
2/24/2020 14:42	1.0 hour		70.4	106	88.2	43.7	79	75	73	65	53	51	47	65	63.9	8.02	77	75	71
2/24/2020 15:42	1.0 hour		71.1	106.7	87.1	44.6	79	77	75	65	53	51	45	65	64.5	8.29	77	75	71
2/24/2020 16:42	1.0 hour		72.3	107.9	89	46.9	79	77	75	67	55	53	49	67	66.3	7.68	79	77	73
2/24/2020 17:42	1.0 hour		71.4	107	84.6	45.9	79	77	75	67	53	51	47	67	64.7	8.43	79	75	71
2/24/2020 18:42	1.0 hour		69.6	105.2	85.2	43.6	79	75	73	61	49	47	45	61	61.2	9.14	77	73	69
2/24/2020 19:42	1.0 hour		69.7	105.3	93.7	44.1	79	75	73	59	47	45	45	59	59.1	9.67	77	73	67
2/24/2020 20:42	1.0 hour		66	101.6	83.1	44.9	77	73	71	53	45	45	45	53	55.5	8.98	75	71	61
2/24/2020 21:42	1.0 hour		65.1	100.7	82.1	44.6	77	71	67	53	47	45	45	53	55	8.05	75	69	59
2/24/2020 22:42	1.0 hour		63.6	99.2	84.6	43.7	75	69	65	49	45	45	43	49	52.5	7.84	73	67	57
2/24/2020 23:42	1.0 hour		60.3	95.9	81.8	40.7	73	63	57	45	41	41	41	45	47.1	7.06	71	59	47
2/25/2020 0:42	1.0 hour		58.6	94.2	86	41.5	71	59	51	45	43	43	41	45	46.3	5.61	67	55	47
2/25/2020 1:42	1.0 hour		57.1	92.7	80.6	40.6	71	57	51	43	41	41	41	43	45.1	5.52	65	53	45
2/25/2020 2:42	1.0 hour		58.5	94.1	84	40.5	71	59	53	45	41	41	39	45	46.2	6.03	69	55	47
2/25/2020 3:42	1.0 hour		63.4	99	84.8	43.6	75	69	63	49	45	45	43	49	51.3	7.61	73	65	53
2/25/2020 4:42	1.0 hour		65.9	101.5	84.2	44.1	77	73	69	53	47	47	45	53	55.3	8.09	75	71	59
2/25/2020 5:42	1.0 hour		70.2	105.8	86.8	49.2	79	75	73	61	53	51	49	61	61.9	8.09	79	75	69
2/25/2020 6:42	1.0 hour		72	107.6	86.9	48.7	81	77	75	65	55	53	51	65	65	7.9	79	77	71
2/25/2020 7:42	1.0 hour		72.2	107.8	84.9	50.6	79	77	75	67	57	55	51	67	66.5	7.18	79	77	73
2/25/2020 8:42	1.0 hour		70.1	105.7	82.7	45.8	79	75	73	63	53	51	47	63	63.1	8.01	77	75	69
2/25/2020 9:42	1.0 hour		69.6	105.2	93.3	43	79	75	73	59	49	47	45	59	60.3	8.97	77	73	67
2/25/2020 10:42	1.0 hour		69.2	104.8	83.9	42.4	79	75	73	61	49	47	45	61	60.9	8.98	77	73	69
2/25/2020 11:42	1.0 hour		69.9	105.5	86	40.6	79	75	73	61	47	45	43	61	61	9.73	77	75	69
2/25/2020 12:42	1.0 hour		69.3	104.9	84.3	40.9	79	75	73	63	49	45	43	63	61.3	9.25	77	73	69
2/25/2020 13:42	1.0 hour		69.6	105.2	83.1	42.4	77	75	73	63	49	45	43	63	61.8	9.16	77	73	69
2/25/2020 14:42	1.0 hour		71.1	106.7	96.5	49.7	77	75	73	65	53	51	49	65	63.7	7.62	77	73	71
2/25/2020 15:42	1.0 hour		71.3	106.9	96.1	44.2	79	77	75	65	51	49	45	65	63.7	8.54	77	75	71
2/25/2020 16:42	1.0 hour		71.7	107.3	85.6	43.9	79	77	75	67	53	49	47	67	65.3	8.41	79	75	71
2/25/2020 17:42	1.0 hour		71	106.6	85.6	44.4	79	77	75	65	51	49	45	65	63.9	8.8	77	75	71
2/25/2020 18:42	1.0 hour		69.4	105	81.8	46.9	77	75	73	63	51	49	47	63	62.7	8.01	77	73	69
2/25/2020 19:42	1.0 hour		68.7	104.3	88.4	46.1	77	75	73	59	49	49	47	59	60.1	8.7	77	73	67
2/25/2020 20:42	1.0 hour		65.7	101.3	86.5	47.1	75	71	69	55	49	47	47	55	56.6	7.97	75	71	63
2/25/2020 21:42	1.0 hour		66.5	102.1	90.3	46.1	77	71	69	55	47	47	45	55	56.6	8.17	75	71	63
2/25/2020 22:42	1.0 hour		63.2	98.8	82.1	43.4	75	69	65	49	45	43	43	49	52.2	8.17	73	67	57
2/25/2020 23:42	1.0 hour		59.5	95.1	81.5	42.4	73	63	57	47	43	43	43	47	48.4	6.27	69	59	49
2/26/2020 0:42	1.0 hour		57.5	93.1	83.7	42.1	71	55	49	43	43	41	41	43	45.4	5.21	65	51	45
2/26/2020 1:42	1.0 hour		59	94.6	84.7	40.7	71	59	53	43	41	41	41	43	45.9	5.89	67	55	47
2/26/2020 2:42	1.0 hour		57.1	92.7	80	39.8	71	59	51	45	41	41	39	45	45.6	5.88	67	55	47
2/26/2020 3:42	1.0 hour		63.4	99	83.7	40.5	75	69	63	47	43	41	39	47	50.1	8.51	73	65	53
2/26/2020 4:42	1.0 hour		68	103.6	88.1	44.6	79	75	71	55	47	47	45	55	56.8	8.66	77	71	61
2/26/2020 5:42	1.0 hour		69.4	105	87.6	49.4	79	75	73	59	51	49	49	59	60.6	8.37	77	73	67

2/26/2020 6:42 1.0 hour	72.3	107.9	87.4	51.8	81	77	75	65	55	55	53	65	65.7	7.57	79	77	71
2/26/2020 7:42 1.0 hour	72.1	107.7	88	47.2	79	77	75	67	55	51	49	67	66.2	7.76	79	77	73
2/26/2020 8:42 1.0 hour	70	105.6	89.9	44.6	79	75	73	63	51	49	47	63	62.3	8.26	77	75	69
2/26/2020 9:42 1.0 hour	68.8	104.4	86.1	41	79	75	73	59	49	47	43	59	59.9	9.17	77	73	67
2/26/2020 10:42 1.0 hour	68.9	104.5	85	41.6	77	75	73	61	47	45	41	61	60	9.76	77	73	69
2/26/2020 11:42 1.0 hour	69.8	105.4	86.3	41.6	79	75	73	61	48.8	45	43	61	61.2	9.43	77	75	69
2/26/2020 12:42 42.4 min	70.2	104.3	84.9	43	79	75	73	63	51	49	43	63	62.7	8.67	77	75	71

**LT-3**

Date	Hour Start	Duration (minutes)	Hourly Leq
2/24/2020	11:00:00	44	66.2
2/24/2020	12:00:00	60	67.5
2/24/2020	13:00:00	60	62.3
2/24/2020	14:00:00	60	62.0
2/24/2020	15:00:00	60	63.1
2/24/2020	16:00:00	60	63.1
2/24/2020	17:00:00	60	62.0
2/24/2020	18:00:00	60	63.1
2/24/2020	19:00:00	60	64.2
2/24/2020	20:00:00	60	61.7
2/24/2020	21:00:00	60	59.1
2/24/2020	22:00:00	60	57.6
2/24/2020	23:00:00	60	56.5
2/25/2020	0:00:00	60	58.5
2/25/2020	1:00:00	60	56.0
2/25/2020	2:00:00	60	50.2
2/25/2020	3:00:00	60	52.1
2/25/2020	4:00:00	60	57.8
2/25/2020	5:00:00	60	63.3
2/25/2020	6:00:00	60	66.9
2/25/2020	7:00:00	60	65.1
2/25/2020	8:00:00	60	61.7
2/25/2020	9:00:00	60	64.1
2/25/2020	10:00:00	60	61.9
2/25/2020	11:00:00	60	61.9
2/25/2020	12:00:00	60	58.1
2/25/2020	13:00:00	60	57.9
2/25/2020	14:00:00	60	57.5
2/25/2020	15:00:00	60	63.6
2/25/2020	16:00:00	60	62.3
2/25/2020	17:00:00	60	60.8
2/25/2020	18:00:00	60	61.7
2/25/2020	19:00:00	60	61.8
2/25/2020	20:00:00	60	62.3
2/25/2020	21:00:00	60	59.2
2/25/2020	22:00:00	60	69.7
2/25/2020	23:00:00	60	59.4
2/26/2020	0:00:00	60	58.4
2/26/2020	1:00:00	60	55.1
2/26/2020	2:00:00	60	55.0
2/26/2020	3:00:00	60	52.4
2/26/2020	4:00:00	60	57.9
2/26/2020	5:00:00	60	63.4
2/26/2020	6:00:00	60	63.7
2/26/2020	7:00:00	60	64.1

2/26/2020	8:00:00	60	61.5
2/26/2020	9:00:00	60	61.7
2/26/2020	10:00:00	60	59.4
2/26/2020	11:00:00	60	58.3
2/26/2020	12:00:00	60	68.3
2/26/2020	13:00:00		



# ST-1

## Summary

File Name on Meter	LxT_Data.039
File Name on PC	SLM_0004004_LxT_Data_039.00.ldbin
Serial Number	0004004
Model	SoundTrack LxT®
Firmware Version	2.402
User	
Location	
Job Description	
Note	

## Measurement

<b>Description</b>	
Start	2020-02-24 12:56:00
Stop	2020-02-24 13:11:02
Duration	00:15:01.9
Run Time	00:15:01.9
Pause	00:00:00.0
Pre Calibration	2020-02-24 12:53:26
Post Calibration	None
Calibration Deviation	---

## Overall Settings

RMS Weight	A Weighting		
Peak Weight	A Weighting		
Detector	Slow		
Preamp	PRMLxT1L		
Microphone Correction	Off		
Integration Method	Linear		
Overload	123.3 dB		
	<b>A</b>	<b>C</b>	<b>Z</b>
Under Range Peak	79.9	76.9	81.9 dB
Under Range Limit	24.5	25.8	32.1 dB
Noise Floor	15.4	16.6	22.9 dB

## Results

LAeq	63.9	
LAE	93.5	
EA	248.303 $\mu\text{Pa}^2\text{h}$	
EA8	7.929 $\text{mPa}^2\text{h}$	
EA40	39.645 $\text{mPa}^2\text{h}$	
LApeak (max)	2020-02-24 13:01:04	104.4 dB
LASmax	2020-02-24 13:01:04	89.2 dB
LASmin	2020-02-24 13:00:20	39.8 dB
SEA	-99.94 dB	
LAS > 75.0 dB (Exceedance Counts / Duration)	1	10.0 s
LAS > 85.0 dB (Exceedance Counts / Duration)	1	2.1 s
LApeak > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
LApeak > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
LApeak > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s

**Community Noise**

**Ldn**      **LDay 07:00-22:00**    **LNight 22:00-07:00**      **Lden**    **LDay 07:00-19:00**    **LEvening 19:00-22:00**    **LNight 22:00-07:00**  
 63.9                      63.9                      -99.94                      63.9                      63.9                      -99.94                      -99.94      dB

**LCeq**                      70.2 dB  
**LAeq**                      63.9 dB  
**LCeq - LAeq**              6.3 dB  
**LAIeq**                      69.8 dB  
**LAeq**                      63.9 dB  
**LAIeq - LAeq**              5.8 dB

	A		C		Z	
	dB	Time Stamp	dB	Time Stamp	dB	Time Stamp
Leq	63.9		70.2			
LS(max)	89.2	2020/02/24 13:01:04				
LS(min)	39.8	2020/02/24 13:00:20				
LPeak(max)	104.4	2020/02/24 13:01:04				

**# Overloads**                      0  
**Overload Duration**              0.0 s

**Dose Settings**

Dose Name	OSHA-1	OSHA-2
Exchange Rate	5	5 dB
Threshold	90	80 dB
Criterion Level	90	90 dB
Criterion Duration	8	8 h

**Results**

Dose	-99.94	0.01 %
Projected Dose	-99.94	0.28 %
TWA (Projected)	-99.94	47.5 dB
TWA (t)	-99.94	22.5 dB
Lep (t)	48.9	48.9 dB

**Statistics**

LAI1.67	67.4 dB
LAI8.33	60.6 dB
LAI25.00	57.9 dB
LAI50.00	54.8 dB
LAI90.00	46.8 dB
LAI99.00	41.7 dB

# ST-2

## Summary

File Name on Meter	LxT_Data.038
File Name on PC	SLM_0004004_LxT_Data_038.00.ldbin
Serial Number	0004004
Model	SoundTrack LxT®
Firmware Version	2.402
User	
Location	
Job Description	
Note	

## Measurement

### Description

Start	2020-02-24 12:16:00
Stop	2020-02-24 12:31:02
Duration	00:15:02.1
Run Time	00:15:02.1
Pause	00:00:00.0

Pre Calibration	2020-02-24 12:13:41
Post Calibration	None
Calibration Deviation	---

## Overall Settings

RMS Weight	A Weighting		
Peak Weight	A Weighting		
Detector	Slow		
Preamp	PRMLxT1L		
Microphone Correction	Off		
Integration Method	Linear		
Overload	123.3 dB		
	<b>A</b>	<b>C</b>	<b>Z</b>
Under Range Peak	79.8	76.8	81.8 dB
Under Range Limit	24.5	25.7	32.1 dB
Noise Floor	15.3	16.6	22.9 dB

## Results

LAeq	67.8		
LAE	97.3		
EA	597.787 $\mu\text{Pa}^2\text{h}$		
EA8	19.085 $\text{mPa}^2\text{h}$		
EA40	95.423 $\text{mPa}^2\text{h}$		
LApeak (max)	2020-02-24 12:22:06	99.8 dB	
LASmax	2020-02-24 12:24:50	81.1 dB	
LASmin	2020-02-24 12:28:05	46.3 dB	
SEA	-99.94 dB		
LAS > 75.0 dB (Exceedance Counts / Duration)	15	47.3 s	
LAS > 85.0 dB (Exceedance Counts / Duration)	0	0.0 s	
LApeak > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s	
LApeak > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s	
LApeak > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s	

**Community Noise**

**Ldn**      **LDay 07:00-22:00**    **LNight 22:00-07:00**      **Lden**    **LDay 07:00-19:00**    **LEvening 19:00-22:00**    **LNight 22:00-07:00**  
 67.8                      67.8                      -99.94                      67.8                      67.8                      -99.94                      -99.94      dB

**LCeq**                      72.0 dB  
**LAeq**                      67.8 dB  
**LCeq - LAeq**              4.2 dB  
**LAIeq**                      70.2 dB  
**LAeq**                      67.8 dB  
**LAIeq - LAeq**              2.4 dB

	A		C		Z	
	dB	Time Stamp	dB	Time Stamp	dB	Time Stamp
Leq	67.8		72.0			
LS(max)	81.1	2020/02/24 12:24:50				
LS(min)	46.3	2020/02/24 12:28:05				
LPeak(max)	99.8	2020/02/24 12:22:06				

**# Overloads**                      0  
**Overload Duration**              0.0 s

**Dose Settings**

Dose Name	OSHA-1	OSHA-2
Exchange Rate	5	5 dB
Threshold	90	80 dB
Criterion Level	90	90 dB
Criterion Duration	8	8 h

**Results**

Dose	-99.94	0.00 %
Projected Dose	-99.94	0.04 %
TWA (Projected)	-99.94	32.9 dB
TWA (t)	-99.94	7.9 dB
Lep (t)	52.7	52.7 dB

**Statistics**

LAI1.67	76.4 dB
LAI8.33	73.0 dB
LAI25.00	68.4 dB
LAI50.00	60.8 dB
LAI90.00	50.3 dB
LAI99.00	47.2 dB

**Appendix 4.15-1  
Water Supply Assessment**





**DIRECTORS**

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June 24, 2020

VIA ELECTRONIC MAIL

Carmela Campbell ([CarmelaC@UnionCity.org](mailto:CarmelaC@UnionCity.org))  
Economic and Community Development Director  
City of Union City  
34009 Alvarado-Niles Road  
Union City, CA 94587

Dear Ms. Campbell:

Subject: Water Supply Assessment for Station East Project

As requested by the City of Union City, Alameda County Water District (ACWD) has prepared a water supply assessment for the Station East Project (enclosed). The water supply assessment was adopted by the ACWD Board of Directors on June 11, 2020 (resolution enclosed).

The water supply assessment was prepared pursuant to California Water Code Section §10910 which requires that a water supply assessment be provided to cities or counties for a project that is subject to the California Environmental Quality Act (CEQA), and which surpasses a threshold for the number of housing units and/or square feet of commercial/industrial buildings. The water supply assessment documents sources of water supply, quantifies water demands, evaluates drought impacts, and provides a comparison of water supply and demand that is the basis for an assessment of water supply sufficiency. The water supply assessment also includes provisions for Water Conservation to be implemented by the Project applicant. As noted in the assessment, these provisions will be a condition of water service to the Project.

Please contact Thomas Niesar, ACWD's Water Supply & Planning Manager, at (510) 668-6549 or e-mail [thomas.niesar@acwd.com](mailto:thomas.niesar@acwd.com), with any questions regarding this assessment.

Sincerely,

Robert Shaver  
General Manager

db/cs

Attachments

By E-mail

cc: Leslie Carmichael, City of Union City ([LeslieC@UnionCity.org](mailto:LeslieC@UnionCity.org))  
Devon Becker, ACWD ([devon.becker@acwd.com](mailto:devon.becker@acwd.com))  
Thomas Niesar, ACWD ([thomas.niesar@acwd.com](mailto:thomas.niesar@acwd.com))  
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RESOLUTION NO. 20-042

OF BOARD OF DIRECTORS OF ALAMEDA COUNTY WATER DISTRICT  
APPROVING THE JUNE 2020 WATER SUPPLY ASSESSMENT FOR THE  
STATION EAST PROJECT

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WHEREAS, California Water Code Section 10910 requires that a city or county that receives an application for a project that is subject to the California Environmental Quality Act (CEQA), and that exceeds a threshold for the number of housing units and/or square feet of commercial/industrial building area request the public water system that would supply water to the project to provide a water supply assessment;

WHEREAS, the City of Union City (City) has submitted the Station East Project (Project) that will allow for the construction of up to 964 multifamily residential units, 31,020 square feet of commercial space, and approximately 376,358 square feet of landscaped areas, including public parks and paseos, semi-private and private open space areas, and other landscaped areas;

WHEREAS, the Project exceeds the statutory thresholds;

WHEREAS, on February 18, 2020, the Alameda County Water District (District) received a request from the City to prepare a water supply assessment for the Project;

WHEREAS, on April 21, 2020, the District issued a request for extension from the City to extend the WSA completion period for an additional 30 days;

WHEREAS, staff has prepared a water supply assessment for the Project which includes a water supply and demand comparison under a range of hydrologic conditions;

WHEREAS, Water Code Section 10910 requires the District's Board of Directors to approve the water supply assessment.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the Alameda County Water District that the June 2020 Station East Project Water Supply Assessment is hereby approved and the General Manager is authorized and directed to submit it to the City of Union City.

PASSED AND ADOPTED this 11<sup>th</sup> day of June 2020, by the following vote:

AYES: Directors Akbari, Gunther, Sethy, Weed, and Huang

NOES: None

ABSENT: None

/s/ JUDY C. HUANG  
Judy C. Huang, President  
Board of Directors  
Alameda County Water District

ATTEST:

APPROVED AS TO FORM:

/s/ ANDREW WARREN  
Andrew Warren, Assistant District Secretary  
Alameda County Water District  
(Seal)

/s/ PATRICK T. MIYAKI  
Patrick T. Miyaki, General Counsel  
Alameda County Water District

CERTIFICATE

I, the undersigned District Secretary of ALAMEDA COUNTY WATER DISTRICT, do hereby certify that the foregoing is a full, true and correct copy of a Resolution of the Board of Directors of ALAMEDA COUNTY WATER DISTRICT, a political subdivision, which said Resolution was duly adopted at a meeting of said Board regularly, held on June 11, 2020, that a copy of said Resolution was forthwith duly entered in the minutes of said meeting of said Board, and that the same is in full force and effect.

Dated: June 24, 2020



---

Gina Markou, District Secretary  
Alameda County Water District



**WATER SUPPLY ASSESSMENT**  
**FOR THE**  
**STATION EAST PROJECT**

**JUNE 2020**

**PREPARED FOR**

**CITY OF UNION CITY,  
CALIFORNIA**

**Prepared by:**

**ALAMEDA COUNTY WATER DISTRICT  
43885 S. Grimmer Blvd.  
Fremont, CA 94538**



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WATER SUPPLY ASSESSMENT AND LETTER OF REQUEST  
FROM ACWD FOR 30-DAY EXTENSION TO COMPLETE WATER  
SUPPLY ASSESSMENT**



**ATTACHMENT B – ACWD URBAN WATER MANAGEMENT PLAN 2015-2020**

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**ATTACHMENT D – ACWD RECOMMENDED WATER EFFICIENCY MEASURES**

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## **SECTION 1 INTRODUCTION**

### **BACKGROUND**

The City of Union City (City) has requested a Water Supply Assessment (WSA) for the Station East Project. The Station East Project (Project) proposes redevelopment of a 24-acre site; for purposes of this WSA, the Project is defined as existing development as assumed in the 2015 Urban Water Management Plan (UWMP). The Project includes the addition of 964 residential dwelling units, 31,020 ft<sup>2</sup> of commercial space, and approximately 376,358 ft<sup>2</sup> of landscaped areas, including public parks, paseos, semi-private and private open space areas, as well as other landscaped areas. The Project site is approximately 24 acres located in eastern Union City, bounded by Decoto Road, 7th Street, Bradford Way, and the Union Pacific Railroad (UPRR) tracks (see Figure 1). The Project will require water supplies for the new residential and commercial uses.

The existing water provider in the area is the Alameda County Water District (ACWD or the District). The District is a retail water purveyor with a service area that includes the cities of Fremont, Newark, Union City, and parts of Hayward. The District provides water primarily to urban customers: approximately 70% of supplies are used by residential customers, with the balance (approximately 30%) utilized by commercial, industrial, and institutional customers. Net distribution system water use was approximately 41,400 acre-feet (AF), or an average of 37.0 million gallons per day (mgd) in fiscal year 2018-19. The District's primary sources of supply come from the California State Water Project (SWP), the San Francisco Regional Water System, and local supplies from the Alameda Creek Watershed and the Niles Cone Groundwater Basin. The District's 2015-2020 Urban Water Management Plan (UWMP or 2015 UWMP) includes estimated water demands associated with the assumed development of the Project area.

California Water Code (Water Code) Section 10910 requires that a water supply assessment be provided to cities and counties for a project that is subject to the California Environmental Quality Act (CEQA), and which surpasses a threshold for the number of housing units and/or square feet of commercial/industrial buildings. The cities and counties are mandated to identify the public water system that might provide water supply to the project and then to request a water supply assessment. The water supply assessment documents sources of water supply, quantifies water demands, evaluates drought impacts, and provides a comparison of water supply and demand that is the basis for an assessment of water supply sufficiency.

### **PURPOSE**

The purpose of this WSA is to document the District's existing and future water supplies for its service area and compare them to the service area's future water demands, including the future water demands of the Project. This comparison, conducted for both normal hydrologic conditions and drought conditions, is the basis for an assessment of water supply sufficiency in accordance with the requirements of Water Code Section 10910.

## **METHODOLOGY**

The District's long-term water supply strategy was developed as part of the District's Integrated Resources Planning Study (IRP) and adopted by the District's Board in 1995. This strategy is incorporated into the District's UWMP which documents the District's existing water supplies as well as the projected future demand for water and changing availability of our supplies. The demand projections were made the year prior to completion of the UWMP, or 2015, and relied on the most current published supply reliability and land use planning data at that time. This WSA will estimate the water demand for the Project and compare it to what was included in the UWMP while using the 2015 UWMP data for analyzing and reporting water supply reliability and documenting the District's sources of supply as required under the Water Code.

## **SECTION 2 WATER DEMAND**

This section provides an overview of historical and current water use in the District as well as a summary of future projected water demands for the Project and the District's service area.

### **WATER USE CATEGORIES**

Water use in the District's service area is divided into two categories: 1) distribution system use, and 2) groundwater system use.

The distribution system use includes all water uses supplied by the District's treatment and production facilities and conveyed to the District's customers via the District's distribution system. This use is further subdivided into the categories of single family residential (SFR), multi-family residential (MFR), commercial, industrial, institutional, landscape, and other uses.

Groundwater system use includes private (non-ACWD) groundwater pumping (primarily for industrial and municipal landscape irrigation uses), the District's Aquifer Reclamation Program (ARP) pumping and saline groundwater outflow to San Francisco Bay. The ARP pumping is an ongoing District program to pump brackish groundwater out of the aquifer system and replace it with fresh water recharged at the District's groundwater recharge facilities. Saline groundwater outflow to San Francisco Bay represents the groundwater outflow required to maintain groundwater flow in a bayward direction necessary to prevent saltwater intrusion into the local aquifer system and to flush saline groundwater back to San Francisco Bay.

The District's groundwater system use is not anticipated to change significantly in the future. Therefore, the following discussions of water use are focused on the District's distribution system water use.

### **HISTORICAL AND CURRENT WATER USE**

Table 1 provides a summary of the last ten years of water use within the District. As shown in the table, residential water use comprises approximately 70% of District water with the remaining 30% being used by commercial, industrial, and institutional customers.

Water consumption patterns in the District service area are a function of many independent factors including growth, weather conditions, economic conditions, and water conservation behaviors. The District saw dramatic declines in consumption during the 1987-1992 drought due to District-sponsored demand management efforts and voluntary conservation efforts by our customers. However, during the drought recovery period after 1992, several significant factors have influenced consumption. From 1993-2001 accelerated growth of both residential and business customers (including the high-tech industry) occurred due to a strong economy. During this period, vacancy rates decreased, and water consumption rose. From 2001 to 2007 the overall consumption in the District was relatively flat, attributed primarily to less robust local economic conditions, mild weather, and on-going water conservation programs. After 2007, the District saw significant declines in overall water consumption, which has been attributed to a combination of continued economic downturn, 2007-2009 successive dry year conditions, and

statewide conservation campaigns. Since the previous UWMP (2010-2015 UWMP), the State of California has experienced a drought, and the resulting substantial reduction in demand for water has changed the District's near- and mid-term anticipated levels of new demands from those reported in the previous UWMP.

The drought ended in 2017, and demand has begun to rebound. Water use in 2019 was consistently higher than during the drought period, but demand has not rebounded to pre-drought levels. In addition, development activity has risen throughout the District's service area due to a strong economy.

#### **WATER DEMANDS - ACWD SERVICE AREA**

The District's approach to water demand forecasting is to: 1) analyze existing demands associated with current land usage; 2) coordinate with City planning staff to obtain future land use plans; 3) estimate potential demands of currently undeveloped lands that are zoned for development; 4) estimate future demands resulting from approved land use changes for already developed lands; and 5) estimate anticipated demand reductions from on-going water conservation and plumbing code changes. This approach is proven sufficiently accurate for long-term, District-wide demand forecasting and is consistent with the California Water Code requirements for urban water management planning. Demand forecasting is done for six primary land use categories: single family residential, multi-family residential, commercial, industrial, institutional, and "other." Existing customer water use in each of these categories is analyzed using multiple linear regression modeling techniques of stochastic variables that affect water demands including weather, plumbing codes, economic and public policy factors. This analysis generates "unit demand" figures for each of the land use categories. The District then coordinates with planning staff from the Cities of Fremont, Newark, and Union City to compile future land use assumptions for both undeveloped and developed land that has been designated for changed use. This includes current City plans (general and specific) as well as forecast development included in the Association of Bay Area Governments (ABAG) most recent regional projections which provide target housing units and employment numbers for the Tri-City area and that Cities have agreed to meet. ABAG was consolidated with the Metropolitan Transportation Commission on July 1, 2017, and now make up the government organization known as the Bay Area Metro. The 2015 Forecast relies more on ABAG projections than previous forecasts due to the near build out of the service area and changing trends in land use and development. A District-wide demand forecast for each land use category, as well as the total District-wide demand, is then developed by multiplying the planned land use under each land use category by the unit demand factors.

Actual unit water use for any specific land use project may vary significantly from the District-wide average. However, determining the actual unit water use for each specific development project in the service area is beyond the scope of the District's UWMP demand forecast. Rather than providing demand forecasts for specific land use projects, the UWMP provides an aggregated, District-wide demand forecast for each land use category, as well as the total District-wide demand. This approach is proven sufficiently accurate for long-term, District-wide demand forecasting and is consistent with the California Water Code requirements for urban water management planning. However, if the District has detailed information about the water

demands of a specific project during the time it is preparing the UWMP, the District will account for the specific project's water demands in the UWMP in lieu of the District-wide average.

The projected future demands in the District service area are summarized in Table 2 (for the years 2020, 2025, 2030, 2035, and 2040). The water demand forecast also includes projected savings from water conservation - both “active conservation” sponsored by the District and “passive conservation” which results from improved plumbing code standards. The District is committed to the implementation of all locally cost-effective water conservation best management practices. A complete description of the District’s water conservation program, as well as water saving assumptions, is provided in Chapter 7 of the attached UWMP. The District is also preparing to achieve water efficiency standards that will be determined through implementation of the statewide water use efficiency framework “Making Conservation a California Way of Life.” The District anticipates reduced future demands for water compared to previous forecasts as well as in comparison to demonstrated past levels of actual demand. These reductions in total demand come despite a net increase in total housing per City and ABAG projections. The District also anticipates a continued decrease in per-capita water demands due to pronounced conservation effects as well as an increased ratio of high-density to low-density housing (discussed further in Chapter 8 of the attached UWMP). These trends also reflect the continued transition of the local industrial sector from water intensive manufacturing to lower water demand activities.

As described in the following section, the Project’s demands are considered to be consistent with the District’s demand forecast, and therefore, are not listed separately in Table 2. The current demand forecast takes into account all WSAs completed prior to the publication of the 2015-2020 UWMP as well as all WSAs completed since the publication of the 2015-2020 UWMP.

## **WATER DEMANDS – STATION EAST PROJECT**

### *Estimation of Project Water Demands*

The Station East Project proposes to add new development and to redevelop portions of the existing Decoto Industrial Park. The Project site is approximately 24 acres located in eastern Union City, bounded by Decoto Road, 7th Street, Bradford Way, and the Union Pacific Railroad (UPRR) tracks (see Figure 1). The Project site is currently developed as part of the Decoto Industrial Park. The Project includes the addition of 964 residential dwelling units, 31,020 ft<sup>2</sup> of commercial space, and approximately 376,358 ft<sup>2</sup> of landscaped areas, including public parks, paseos, semi-private and private open space areas, as well as other landscaped areas. None of the existing industrial development will remain as this project will redevelop the entire site.

Information on the Project’s proposed land use was provided by the City of Union City and is listed in Table 6. City of Union City Staff has indicated that the data represents the upper end of development potential. ACWD estimates the Project will result in approximately 103 AF/yr of new demand. ACWD’s most recent demand forecast included demand for the proposed residential development, while the additional commercial building area is consistent with existing land-use zoning contemplated in the forecast. Therefore, the Project is included in ACWD’s most recent forecast and water supply planning analyses in the 2015-2020 UWMP.

### *Water Efficiency Measures to be Incorporated in the Project*

In order to ensure that the Project incorporates the most up-to-date water efficiency measures, the Project should be developed with water efficient plumbing fixtures and irrigation systems at non-residential developments, including but not limited to those listed in Attachment D – Water Efficiency Measures for New Developments.

### **IMPACTS OF DROUGHT ON DEMANDS**

Historically, dry periods have impacted water demands in several ways. Because approximately 35% of the District's demand comes from landscape irrigation, dry periods tend to increase demands as low rainfall and higher temperatures result in increased evapotranspiration requirements for landscaping. However, when dry periods extend in length or intensity and become designated as drought, public awareness campaigns at local, regional, and state level have typically reduced demands due to customer awareness and social consciousness. District customers have a proven history of high awareness of drought and responsible water usage during dry periods. In extreme dry periods, the District may set either a voluntary or even mandatory water use reduction targets (as discussed in Chapter 10 of the UWMP). These restrictions have historically resulted in large, temporary demand reductions as customers curtail non-essential water use and implement lasting conservation measures. After past drought periods, the temporary reductions have returned gradually to pre-drought levels, taking upwards of five years. However, as demonstrated during past droughts, District customers, like California residents on whole, have also implemented permanent demand reductions during the drought which extend beyond the end of the drought and have lasting effects of reduced demands for water. These demand reductions occur as a result of accelerated implementation of water efficiency and conservation measures during the drought due to heightened customer awareness.

As an example, during the 1987-1992 drought, District customers reduced overall water use by approximately 20% as the result of both voluntary efforts and mandatory restrictions imposed by the District with a lasting 5% reduction after the drought ended. During the most recent drought, District customers reduced overall water use, through April 2016, by nearly 28% relative to baseline demands in 2013. The District has had an unprecedented participation in conservation programs during the most recent drought and estimates that a permanent 6% demand reduction will last beyond the end of drought. Because of the continued implementation of natural and programmatic conservation, the ability to reduce overall volumetric water use during future droughts by similar levels may be lessened. For planning purposes, the 2015 Forecast assumed the then current drought to end in 2016, with demand rebound to occur over the next five years from 2017-2021. On April 7, 2017, Governor Brown declared an end to the most recent drought.

For planning purposes, it is conservatively assumed that, during drought periods, water demands for the District's distribution system customers do not change from those during normal years. However, dry years result in lower groundwater levels, caused by reduced local recharge and increased reliance on groundwater storage, which results in reduced saline groundwater outflows. In addition, the District will often minimize ARP pumping in order to reduce groundwater system demands during dry periods. Summaries of projected demands including



the Project demands under single dry year and multiple dry year conditions (based on a five-year drought under 2036-2040 demand conditions) are provided in Table 3 and Table 4 respectively.

### **SECTION 3 WATER SUPPLY**

The District's three primary sources of water supply are: 1) the State Water Project (SWP); 2) San Francisco's Regional Water System; and 3) local supplies. The SWP and San Francisco Regional Water Supplies are imported into the District service area through the South Bay Aqueduct and the Hetch-Hetchy Aqueduct, respectively. Local supplies include fresh groundwater from the Niles Cone Groundwater Basin, desalinated brackish groundwater from portions of the groundwater basin previously impacted by seawater intrusion, and surface water from the Del Valle Reservoir. The primary source of recharge for the Niles Cone Groundwater Basin is percolation of runoff from the Alameda Creek watershed. To a lesser degree, a portion of ACWD's SWP supplies are also used for local groundwater percolation. Infiltration of rainfall and applied water within the District service area also contribute to local groundwater recharge.

Due to the configuration of the District's water production facilities and the interconnection with the District's distribution system, the proposed Project may receive water supplies from all three primary sources of supplies and would not be dependent on any single source of supply. Therefore, a description of ACWD's water supplies is provided below. Table 6 provides a summary description of the contracts and permits for these supplies, and Table 7 provides a summary of the historical use of these supplies by ACWD.

#### **WHOLESALE WATER SUPPLIES**

As described above, ACWD's wholesale water supplies are: 1) State Water Project supplies purchased from the California Department of Water Resources; and 2) San Francisco Regional Water System supplies purchased from San Francisco. ACWD's contracts for these wholesale supplies are provided in Attachment C, and each supply is described in greater detail below.

##### ***State Water Project***

In 1961, the District signed a contract with the State Department of Water Resources (DWR) for a maximum annual amount of 42,000 acre-feet from the SWP, referred to as ACWD's "maximum Table A allocation." The SWP, managed by the DWR, is the largest state-built, multi-purpose water project in the country. The SWP facilities include 28 dams and reservoirs, 26 pumping and generating plants, and approximately 660 miles of aqueducts. The water stored in the SWP storage facilities originates from rainfall and snowmelt runoff in Northern and Central California watersheds. The SWP's primary storage facility is Lake Oroville in the Feather River Watershed. Releases from Lake Oroville flow down the Feather River to the Sacramento River, which subsequently flows to the Sacramento-San Joaquin Delta. The SWP diverts water from the Delta through the Banks Pumping Plant which lifts water from the Clifton Court Forebay (in the Delta) to the California Aqueduct and Bethany Reservoir. From Bethany Reservoir, the South Bay Pumping Plant lifts water into the South Bay Aqueduct, which delivers State Water Project supplies to ACWD and other Bay Area water agencies in Alameda and Santa Clara Counties.

Semitropic Banking of ACWD's SWP Supplies: Because of the variability in the SWP supply availability, ACWD's 1995 IRP identified the need to secure 140,000 AF of off-site storage capacity to improve the dry year reliability of this supply source. Based on this IRP recommendation, ACWD has contracted with Semitropic Water Storage District for participation in the Semitropic Groundwater Banking Program in Kern County. In wet years, ACWD delivers its unused (excess) SWP supplies to Semitropic for storage in their groundwater basin. In dry years, ACWD can recover these supplies through: (1) an "in-lieu" exchange whereby ACWD will receive a portion of Semitropic's SWP supplies (and Semitropic will utilize groundwater previously stored by ACWD in its basin); and (2) a "pumpback" program where Semitropic directly pumps stored groundwater into the California Aqueduct and ACWD recovers this supply through SWP exchanges.

The rate at which ACWD can recover stored water in dry years is constrained by contractual limitations and limitations on the capacity of the Semitropic pumpback facilities. Based on the terms of the agreements with Semitropic, the amount of return capacity is based on the amount of storage capacity purchased. Because of these limitations, ACWD secured a total of 150,000 AF of storage capacity at Semitropic (in excess of the IRP's recommendation of 140,000 AF), in order to provide sufficient dry year return capacity to meet ACWD's projected needs in all but the most severe drought conditions.

The Semitropic Groundwater Banking Program does not provide a new source of supply for the District. Rather, it provides a means to store the District's unused SWP supplies in wet years for use during dry years when the delivery of SWP supplies may be significantly curtailed.

#### *San Francisco's Regional Water System*

ACWD also receives water from the San Francisco Regional Water System, operated by the San Francisco Public Utilities Commission (SFPUC). This supply is predominantly from the Sierra Nevada, delivered through the Hetch-Hetchy aqueducts, but also includes treated water produced by the SFPUC from its local watersheds and facilities in Alameda and San Mateo Counties. The amount of imported water available to the SFPUC's retail and wholesale customers is constrained by hydrology, physical facilities, and the institutional parameters that allocate the water supply of the Tuolumne River.

In 2009, ACWD, along with the other wholesale customers, signed a new Master Sales Agreement with San Francisco, supplemented by an individual Water Sales Contract. The new agreements have a term of 25 years and provide a commitment from San Francisco to provide, collectively, up to 184 mgd to its wholesale customers. ACWD's individual supply assurance is 13.76 mgd. In 2019, the Agreement was amended to address administrative issues; these amendments have no impact on ACWD's reliability assumptions as reported in the 2015-2020 UWMP.

## LOCAL SOURCES

As described above, ACWD's local sources include fresh groundwater from the Niles Cone Groundwater Basin, brackish groundwater desalination, and surface water supplies from the Del Valle Reservoir. Each of these supplies is described in greater detail below.

### *Niles Cone Groundwater Basin*

The principal source of local supply for the District is the local aquifer system known as the Niles Cone Groundwater Basin. The primary source of recharge for the Niles Cone Groundwater Basin is local runoff from the Alameda Creek Watershed, which is captured, diverted and recharged at the District's groundwater recharge facilities. To a lesser extent, infiltration of rainfall and applied water within the ACWD service area also provide a local source of recharge for the groundwater basin. Though not a local supply but mentioned here for completeness, ACWD also uses a portion of its imported State Water Project supplies for groundwater recharge to more effectively manage the groundwater basin.

Chapter 3 of the 2015 UWMP documents the range in availability of supply from Alameda Creek and includes environmental bypass flow requirements from a March 2011 agreement between ACWD and the National Marine Fisheries Services (NMFS) and the California Department of Fish and Wildlife (CDFW).

The water quality in the groundwater system is characterized by fresh groundwater in the eastern portion of the groundwater basin transitioning into brackish groundwater in the western portion of the basin. The brackish groundwater is a result of historical seawater intrusion from the adjacent San Francisco Bay. Since the 1960's ACWD has managed the groundwater basin to prevent any additional seawater intrusion and has an on-going program to pump trapped brackish groundwater back to San Francisco Bay through the District's Aquifer Reclamation Program wells.

The Niles Cone Groundwater Basin has capacity to store water from year to year ("local groundwater storage"). However, the usable storage capacity of the groundwater basin is significantly limited by the potential for saltwater intrusion if groundwater levels are maintained too low. Although local groundwater storage (i.e. groundwater supplies in excess of recharge) provides a short term source of supply during dry years, it is not a supply that is available every year because the groundwater system will require replenishment from freshwater sources, without which saltwater intrusion would occur.

Chapter 4 of the UWMP (attached) provides a comprehensive description of the Niles Cone Groundwater Basin, including groundwater quality, groundwater levels, historical and projected groundwater pumping, and ACWD's groundwater management activities. A copy of ACWD's groundwater management policy is also provided in the UWMP. Information regarding the Niles Cone Groundwater Basin can also be found in a number of DWR Bulletins, including the most recent DWR Bulletin 118 – Interim Update 2016 *California's Groundwater, Working Toward Sustainability*.

On September 16, 2014, Governor Jerry Brown signed a three-bill package known as the Sustainable Groundwater Management Act (SGMA) into law that establishes a new structure for groundwater management, recognizing that groundwater management in California is best accomplished locally. The Niles Cone Groundwater Basin is identified by DWR as a medium priority basin and is not identified by the DWR as being subject to critical conditions of overdraft. SGMA identifies ACWD as one of 15 agencies that were created by statute to manage groundwater and deemed the exclusive local agency to comply with SGMA. On November 10, 2016, ACWD's Board of Directors adopted Resolution No. 16-069 deciding to become the Groundwater Sustainability Agency (GSA) for the Niles Cone Subbasin 2-09.01 and on December 8, 2016, ACWD's Board of Directors adopted Resolution No. 16-075 authorizing the submittal of an Alternative to a Groundwater Sustainability Plan for the Niles Cone Subbasin 2-09.01 (Alternative). The California Department of Water Resources (DWR) reviewed ACWD's Alternative, and in a letter dated July 17, 2019, concluded that the Alternative satisfies the objectives of SGMA and was approved. The approval of ACWD's Alternative together with pre-existing authority by which ACWD has carried out groundwater management efforts will allow ACWD to continue the successful management of the Niles Cone Groundwater Basin.

#### ***Brackish Groundwater Desalination***

In 2003 ACWD commissioned the Newark Desalination Facility which utilizes the reverse osmosis process to remove salts and other impurities from the brackish groundwater pumped at ACWD's Aquifer Reclamation Program wells. Treated water from the Newark Desalination Facility is blended with untreated local groundwater and provided as a supply for the distribution system demands. In 2010, ACWD expanded this facility to 10-mgd.

#### ***Del Valle Reservoir***

The District and Zone 7 Water Agency of the Alameda County Flood Control and Water Conservation District (Zone 7), have equal rights on Arroyo Del Valle to divert water to storage. When the California Department of Water Resources (DWR) constructed Del Valle Dam in the upper Alameda Creek Watershed, those rights were recognized in an agreement among DWR, the District, and Zone 7. Consequently, DWR typically makes a total of 15,000 AF of storage available annually in Del Valle Reservoir for use by ACWD and Zone 7. ACWD and Zone 7 equally share this storage capacity, thereby providing up to 7,500 AF of storage capacity to ACWD.

#### ***Recycled Water***

The District's long-term supply strategy includes a potential recycled water program to provide upwards of 2,600 AF/yr of non-potable supply. Non-potable supply can only be used to meet limited forms of demand for non-potable water, such as landscape irrigation and industrial process water. As described in Chapter 6 of the UWMP, the source of recycled water will likely be from a joint project with ACWD and Union Sanitary District (USD) though it could be sourced from another location such as the South Bay Water Recycling Program. Recycled water distribution pipelines are separate from the District's existing potable distribution system and, therefore, would not adversely affect existing potable supply operations. The volume of recycled water produced would be the same in drought years as in normal years, thus providing a firm

source of supply. Demand for recycled water for irrigation purposes is highest in the summer months. Therefore, in addition to increasing water supply, use of reclaimed water would help meet peak monthly and daily production capacity needs.

ACWD and USD have continuously reevaluated the feasibility of implementing a recycled water program with studies conducted in 1993, 2000, 2003, 2010, and 2015. These studies document a continuous decline in the potential demand for a non-potable water supply over the years due to a reduction in water-intensive manufacturing, elimination of two previously planned future golf-courses, and a suite of State imposed regulations that in combination reduce the future demand for irrigation. With large implementation costs and a declining yield, the cost effectiveness of a non-potable recycled water project becomes increasingly unrealistic. As a result, the ACWD and USD *Recycled Water Feasibility Study 2015/16* was expanded to include an evaluation of indirect potable reuse (IPR). Advances in treatment technology and the successful, multi-decade operation of several IPR projects in California have led to new streamlined regulations allowing for the safe reuse of wastewater to supplement raw water supplies used to meet potable demands. An IPR project would use Advanced Treatment to purify wastewater to drinking water standards. However, as an added safety factor this purified water would be used to help recharge the Niles Cone Groundwater Basin where it would undergo additional natural filtering and dilution with other raw water sources before being produced as a potable supply at one of ACWD's groundwater production facilities. The 2015 study found that over 4,000 AF of additional recharge supply could be provided by an IPR project and at a lower cost than a non-potable project. ACWD is presently conducting a next-level feasibility study of IPR potential with USD and the SFPUC

Recycled water is not included in the 25-year planning horizon of the water supply-demand comparisons provided in the 2015 UWMP; however, it is considered a potential future source of supply for ACWD, especially in light of uncertainties with the reliability of existing supplies, and is included in ACWD's Capital Improvement Program. As part of the District's next review of the Integrated Resources Planning Study, ACWD will continue to evaluate the potential timing for a future recycled water project in the service area.

## **WATER SUPPLY UNCERTAINTIES**

The purpose of this section is to identify factors which may impact current planning assumptions, the significance and magnitude of which are currently unknown. As described below, the potential impacts of global warming are a key uncertainty which may impact all of ACWD supplies. In addition, each of ACWD's supplies face uncertainties which may be unique to the source of supply. A summary of water supply uncertainties facing ACWD's supplies is provided in Table 8 and discussed in greater detail below.

### ***Climate Change***

The issue of climate change has become an important factor in water resources planning in California and is frequently considered in urban water management planning purposes, though the extent and precise effects of climate change remain uncertain. There is convincing evidence that increasing concentrations of greenhouse gasses have caused and will continue to cause a rise in temperatures around the world, which will result in a wide range of changes in climate

patterns. Moreover, observational data show that a warming trend occurred during the latter part of the 20th century and virtually all projections indicate this will continue through the 21st century. These changes will have a direct effect on water resources in California, and numerous studies have been conducted to determine the potential impacts to water resources. Based on these studies, climate change could result in the following types of water resource impacts, including impacts on the watersheds in the Bay Area:

- Reductions in the average annual snowpack due to a rise in the snowline and a shallower snowpack in the low and medium elevation zones, and a shift in snowmelt runoff to earlier in the year;
- Changes in the timing, intensity and variability of precipitation, and an increased amount of precipitation falling as rain instead of as snow;
- Long-term changes in watershed vegetation and increased incidence of wildfires that could affect water quality and quantity;
- Sea-level rise and an increase in the potential for saltwater intrusion in the Delta and Coastal aquifers such as the Niles Cone;
- Increased water temperatures with accompanying potential adverse effects on some fisheries and water quality;
- Increases in evaporation and transpiration (irrigation need); and
- Changes in urban and agricultural water demand.

Each of the District's supply sources will be affected uniquely by climate change and are discussed below.

State Water Project: In addition to changed weather patterns, the SWP is anticipated to have operational challenges in the Delta stemming from climate change as well. DWR notes:

*“climate change poses the threat of increased variability in floods and droughts, and sea level rise complicates efforts to manage salinity levels and preserve water quality in the Delta so that the water remains suitable for urban and agricultural uses. Among the other challenges are continued subsidence of Delta islands, many of which are already below sea level, and the related threat of a catastrophic levee failure as water pressure increases on fragile levees.” (DWR, State Water Project Delivery Capability Report 2015)*

DWR coordinates with the Climate Action Team (CAT) in order to capture changing weather patterns and the impacts of sea-level rise in the State Water Project Delivery Capability Report (DCR), previously known as the Delivery Reliability Reports (DRR). The CAT reports that SWP reliability will be further diminished in the future with impacts beginning to become significant in the latter half of the 21<sup>st</sup> century. However, the water supply impacts anticipated from climate change are minimal during the 20-year purview of the UWMP; these impacts include climate impacts from the 2025 Green House Gas (GHG) emission assumptions and 15-cm of assumed sea-level rise.

San Francisco Regional Water System: Climate change research by the SFPUC began in 2009 and continues to be refined. In its 2012 report “Sensitivity of Upper Tuolumne River Flow to Climate Change Scenarios,” the SFPUC assessed the sensitivity of runoff into Hetch Hetchy

Reservoir to a range of changes in temperature and precipitation due to climate change. Key conclusions from the report include the following:

- With differing increases in temperature alone, the median annual runoff at Hetch Hetchy would decrease by 0.7-2.1 percent from present-day conditions by 2040 and by 2.6-10.2 percent from present-day by 2100. Adding differing decreases in precipitation on top of temperature increases, the median annual runoff at Hetch Hetchy would decrease by 7.6-8.6 percent from present-day conditions by 2040 and by 24.7-29.4 percent from present-day conditions by 2100.
- In critically dry years, these reductions in annual runoff at Hetch Hetchy would be significantly greater, with runoff decreasing up to 46.5 percent from present day conditions by 2100 utilizing the same climate change scenarios.
- In addition to the total change in runoff, there will be a shift in the annual distribution of runoff. Winter and early spring runoff would increase, and late spring and summer runoff would decrease.
- Under all scenarios, snow accumulation would be reduced, and snow would melt earlier in the spring, with significant reductions in maximum peak snow water equivalent under most scenarios.

Currently, the SFPUC is planning to conduct a comprehensive assessment of the potential effects of climate change on water supply. The assessment will incorporate an investigation of new research on the most recent drought; this information will be available prior to and included in ACWD's next UWMP updated in 2020.

Both the District and SFPUC participated in the 2013 update of the Bay Area Integrated Regional Water Management Plan (BAIRWMP), which includes an assessment of the potential climate change vulnerabilities of the region's water resources and identifies climate change adaptation strategies. These works are summarized in Appendix B.

Local Groundwater: In 2003, and then again in an update prepared in August 2005, the Pacific Institute for Studies in Development, Environment and Security prepared a literature search report for DWR, which summarized recommendations for coping with and adapting to climate change from key peer-reviewed publications and specifically considered the potential impacts of climate change on groundwater. The Pacific Institute's report is entitled, *Climate Change and California Water Resources: A Survey and Summary of the Literature*, by Michael Diparsky and Peter H. Gleick, Pacific Institute (*Climate Change and Water Resources*).

*Climate Change and Water Resources* found that little work has been done on the impacts of climate change for specific groundwater basins, or for general groundwater recharge characteristics or water quality. As the following conclusions from the report illustrate, the potential impacts of climate change on groundwater resources are divided, with some potentially resulting in increased availability of groundwater and others potentially resulting in less.

- Changes in recharge will result from change in effective rainfall as well as a change in the timing of the recharge season. Increased winter rainfall could lead to increased groundwater recharge.
- Higher evaporation or shorter rainfall seasons could mean that soil deficits persist for longer periods of time, shortening recharge seasons.



- Because a significant portion of winter recharge comes from deep percolation of precipitation below the rooting zone, warmer winter temperatures between storms would be expected to increase and dry out the soil between storms. A greater amount of rain in subsequent storms would then be required to wet the root zone and provide water for deep percolation.
- Sea-level rise could affect coastal aquifers through saltwater intrusion.
- Warmer, wetter winters would increase the amount of runoff available for groundwater recharge. However, this additional runoff would be occurring at a time when some basins are either being recharged at their maximum capacity or are already full.
- Reductions in spring runoff and higher evapotranspiration because of higher temperatures could reduce the amount of water available for recharge.
- In 2009, the District performed a preliminary modeling study to evaluate future impacts on groundwater levels and legacy saltwater intrusion in the Niles Cone in response to hypothetical increases in sea level. The District has shared the results with the Coastal Hazards Adaptation Resiliency Group (CHARG).

#### ***Bay Delta Water Quality Control Plan Update***

On December 12, 2018, the State Water Resources Control Board (State Water Board) adopted Phase I amendments to the San Francisco Bay/Sacramento-San Joaquin Delta Estuary Water Quality Control Plan (Bay-Delta Plan) and adopted the Final Substitute Environmental Document (SED) related to those Phase I amendments. The amendments include flow requirements for the Lower San Joaquin River and its tributaries, including the Tuolumne River, to maintain 40% unimpaired flow, within an adaptive range between 30-50% unimpaired flow, from February through June. The flow requirements, if implemented, would have potentially significant impacts to District imported water supplies from SFPUC.

Currently, negotiations are underway between the California Department of Fish and Wildlife Services, the California Department of Water Resources, and watershed stakeholders to develop Voluntary Settlement Agreements (VSAs) that may be considered in the analysis of alternatives to be considered during the Bay-Delta Plan Phase II environmental review. Phase II amendments to the Bay-Delta Plan will build on Phase I updates and address flow requirements to the Sacramento River and its tributaries. The flow requirements, under consideration in Phase II may have potentially significant impacts to District imported water supplies from the State Water Project. The VSAs under consideration include both flow and non-flow measures, such as fallowing, habitat improvements, predator control, and exclusion barriers.

The State Water Board would implement the Bay-Delta Plan in a future Phase III, to occur after completion of Phase II. Given the uncertainty in how any potential State Water Board decisions during Bay-Delta Plan Phase II could affect the State Water Board's actions in Phase I, it is too early to evaluate the likely water supply impacts of the Phase I decision.

#### ***Local Supplies***

In addition to potential climate change impacts, the availability of ACWD's local supplies may be influenced by a variety of other factors including additional operational and facility modifications to accommodate on-going Alameda Creek fishery restoration efforts beyond those

agreed to by NMFS/CDFW. Upstream land use, flood control and water supply projects in the Alameda Creek Watershed may also impact the supply and quality of water available at ACWD's groundwater recharge facilities. There also may be uncertainties regarding future releases from the major reservoirs in the Alameda Creek Watershed, including Calaveras and San Antonio Reservoirs (SFPUC) and Del Valle Reservoir (DWR), as required for environmental purposes and/or operational agreements. This includes, for example, an arrangement between ACWD and SFPUC that provided water to ACWD for groundwater recharge during a period when the Niles Cone Groundwater Basin was in overdraft condition and threatened by seawater intrusion. Similarly, efforts to develop groundwater supplies by entities in the South East Bay Plain (north of ACWD) may also impact ACWD's groundwater supply availability. ACWD is currently working to address these items. However, it is unclear whether these issues will ultimately impact ACWD's local supplies.

### ***San Francisco Regional Supplies***

In order to enhance the ability of the SFPUC water supply system to meet identified service goals for water quality, seismic reliability, delivery reliability, and water supply, the SFPUC is undertaking a Water System Improvement Program (WSIP). Completion of the projects in the WSIP is critical for the SFPUC in order to achieve the stated reliability goals for the San Francisco Regional Supplies. However, it is currently uncertain if the SFPUC will be successful in fully implementing this program, and if it will be accomplished in a timely manner. Other factors that may impact the reliability of RWS supplies include environmental regulations and permitting requirements for its Hetch-Hetchy and local watershed facilities and operations. Additional information on potential factors affecting the San Francisco Regional Supplies reliability is provided in Appendix B of the 2015 UWMP.

As discussed above, the State Water Resources Control Board has proposed substantial changes to flow objectives for the Tuolumne River. These changes are anticipated to result in reduced surface water available for diversions, thereby potentially causing significant impacts to water supply from the San Francisco Regional System.

### ***State Water Project Supplies***

The reliability of the District's SWP supplies will continue to remain uncertain due to the ongoing concerns regarding the sustainability of the Delta. These concerns include the Delta ecosystem and potential future environmental regulations, levee stability and the potential for catastrophic failure of these levees, urban encroachment within the Delta, and water quality within the Delta due to urban and agricultural discharges.

The Delta Conveyance Project has been proposed to address the Delta's issues of aging infrastructure, to improve seismic resiliency, and prepare for anticipated challenges of climate change. Under current operations, water is exported from the Sacramento-San Joaquin Delta to the State Water Project (SWP) and the Central Valley Project (CVP) after it flows through a maze of river channels and sloughs toward intake stations for the California Aqueduct and the Delta-Mendota Canal located in the South Delta. This braided channel flow through the Delta disrupts natural river flow direction away from the San Francisco Bay which in turn disrupts aquatic species' lifecycles. The Delta Conveyance Project proposes to build a

seismically resilient tunnel to carry fresh water from the Sacramento River below the Sacramento-San Joaquin Delta toward the intake stations, reducing the disruptive effects on Delta river flows. The Delta Conveyance Project would allow for greater flexibility in balancing the needs of the estuary with the reliability of water supplies. The Project would also provide other benefits, such as reducing the risk of long outages from Delta levee failures.

The Delta Conveyance project is a large and complex endeavor with ongoing challenges including legal and financing issues which must be resolved prior to any construction. Because of this uncertainty, any improvements in SWP supply reliability or other benefits that could result from this proposed project are not included in this WSA.

Delta Disruption due to low water supply availability. On January 31, 2014, DWR announced a 0% Table A allocation for the first time in its 54-year history. Although the allocation was subsequently raised to 5%, this water was not available before September 1, 2014, after the typical summer high demand season. Being situated downstream of the Delta but upstream of the major water storage facilities of the SWP, the District was in a uniquely vulnerable position. Among other factors, this disruption of the SWP created an uncertainty surrounding the District's ability to access remotely stored supplies in Semitropic Groundwater Bank and San Luis Reservoir leading the District to declare a Water Shortage Emergency targeting 20% conservation District-wide, following plans outlined in the Chapter 10 of the UWMP (Water Shortage Contingency Plan).

Despite this low allocation, DWR's DCR modeling scenarios still considers the minimum reliability to be between 8% and 11% in the various scenarios as documented in Table 3-2. The 2014 condition has been described as the result of a rare sequence of extreme hydrology in water year 2013.<sup>1</sup> October through December 2012 was one of the wettest fall periods on record, but was followed by the driest consecutive 12 months on record. The 2013 hydrology ended up being even drier than DWR's conservative hydrologic forecast, resulting in initial reservoir storage levels for 2014 that were lower than targeted levels with less stored water available for 2014 supplies. Compounding this low initial storage situation, 2014 also was an extremely dry year, with runoff for water year 2014 being the fourth driest on record. Due to the extraordinarily dry conditions in 2013 and 2014, the 2014 Table A allocation was a historic low, only 5%. The unusual hydrologic conditions are not included in the DCR which only runs through year 2003.<sup>2</sup> It is anticipated that the hydrologic record used in the DWR model will be extended to include the period through 2014 during the next update of the model, which is expected to be completed in the coming year.

As discussed above, the State Water Resources Control Board has proposed substantial changes to flow objectives for the Sacramento River and related tributaries. These changes are anticipated to result in reduced surface water available for diversions, thereby potentially causing significant impacts to water supply from the SWP.

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<sup>1</sup> A water year begins in October and runs through September. For example, water year 2013 is October 2012 through September 2013.

<sup>2</sup> SWP delivery estimates from DWR's 2015 SWP Delivery Capability Report are from computer model studies which use 82 years of historical hydrologic inflows from 1922 through 2003.

### ***Semitropic Banking Program***

The District faces some uncertainty with regards to recovery of water from the Semitropic Banking Program. These uncertainties include: 1) water quality concerns with regard to groundwater from Semitropic that is pumped back into the California Aqueduct; 2) the availability of exchange and/or delivery capacity to deliver water to or recover water from Semitropic; and 3) repercussions of the recent Sustainable Groundwater Management Act (SGMA) on the operations of the Banking Program. With regards to the water quality issues, in 2013 Semitropic initiated a Raw Water Processing Facility (RWPF) to capture raw water constituents of concern before the groundwater is pumped into the California Aqueduct. Since initiation in 2013, Semitropic was able to meet or exceed DWR's water quality pump-in criteria, therefore reliability concerns associated with Water Quality have been greatly reduced. It is possible that in the future, additional constituents of concern could be identified, and Semitropic may be required to expand or revise its RWPF. With regards to the exchange and delivery capacities needed to both deliver water to and recover dry year supplies from Semitropic, the District has coordinated with Semitropic, DWR, and other Semitropic Banking partners to ensure coordination of the planned use of the Semitropic delivery and recovery capacity and the needed exchanges. During the recent drought in 2014, Semitropic demonstrated the ability to return the District's banked supplies even during the temporary 0% Table A allocation. However, the risk remains that, under certain critical dry year conditions, the District may be limited in its ability to recover its contractual recovery capacity from Semitropic. Potential mitigation measures to minimize the risk associated with the constraints in Semitropic dry year recovery may include: 1) re-operation of local and other storage available to the District (i.e. Niles Cone Groundwater Basin, Del Valle Reservoir, San Luis Reservoir) in coordination with recovery from Semitropic; 2) non-project water storage options such as Los Vaqueros Reservoir; and 3) alternative dry year supply programs.

### ***SB 7 – Water Conservation Requirements under the 2009 Comprehensive Water Package***

The Water Conservation Bill of 2009 (SBX7-7), requires a statewide 20% reduction in urban per capita water use by 2020. It requires urban water retail suppliers such as ACWD to determine baseline water use and set reduction targets according to specified requirements to be achieved by 2020. See Chapter 8 of the 2015 UWMP for additional information on ACWD's baseline and targets.

As documented in the 2015 UWMP, based on current actual consumption and forecast demand for water, ACWD is currently meeting the 2020 compliance target and is projected to continue to comply with SBX7-7 in year 2020 and beyond.

*AB 1668 and SB 606 – Making Water Conservation a California Way of Life*

Assembly Bill 1668 and Senate Bill 606 were signed into law on May 31, 2018, and require the State Water Resources Control Board, in coordination with the Department of Water Resources, to adopt long-term standards for the efficient use of water as part of carrying out then Governor Brown’s Executive Order B-37-16 “Making Water Conservation a California Way of Life.” Each urban retail water supplier, including the District, are required to set new permanent water use targets for their service areas as a whole, not on a per customer basis.

While there are no immediate impacts to customers, efficiency standards will be set for indoor and outdoor water use and water loss and included in the 2020-2025 UMWP; there are no changes to the 2015 UWMP regarding this legislation. The District will continue to recommend water saving practices and promote Water Efficiency Measures for New Residential Development as described in Attachment D.

**WATER SUPPLY IN NORMAL AND DRY YEAR CONDITIONS**

The projected availability for each of ACWD’s water supplies under normal, critical dry year, and multiple dry year conditions are provided in Table 10 through Table 12. As documented in the District’s 2015 UWMP, information on the projected availability of ACWD’s local supplies is based on the long-term historical hydrologic conditions in the Alameda Creek Watershed. Information on the projected reliability of ACWD’s wholesale supplies from the State Water Project and San Francisco Regional Water System supplies were provided by the DWR and San Francisco Public Utilities Commission, respectively.

*Water Supply under Normal Year Conditions*

In order to be consistent with the recommendations by the DWR in the use of SWP reliability information, this water supply assessment characterizes long-term average conditions as normal year conditions. As shown in Table 10, under normal year conditions supplies from the SWP and San Francisco Regional Water System comprise approximately 56% of the water available to ACWD, with the balance coming from local supplies. All of the supplies listed in Table 10 are existing supplies available to ACWD, and have been historically utilized by the District. Supplies from local groundwater reserves and the Semitropic Groundwater Banking Program are not included as normal year supplies because these supplies are intended for dry year conditions (or other water shortages) and are not intended to meet normal year demands.

### ***Water Supply under Critical Dry Year Conditions***

As shown in Table 11, the availability of ACWD's overall water supplies under a critically dry year may be significantly reduced. Under critically dry conditions, the SWP deliveries would be reduced to approximately 8% of the maximum contractual amounts (referred to as the "Table A" amounts in the SWP contracts). In addition, ACWD's other supplies from the San Francisco Regional Water System and local supplies from the Alameda Creek Watershed may also be substantially reduced during a critically dry year.

In order to mitigate these potentially severe water supply cut-backs, ACWD would rely on groundwater reserves stored in the local Niles Cone Groundwater Basin, and reserves stored at the Semitropic Groundwater Banking Program. As described above, the amount of storage in the local Niles Cone Groundwater Basin is limited due to threats of seawater intrusion when groundwater elevations fall below sea-level. ACWD has therefore invested in additional off-site storage at the Semitropic Groundwater Banking Program. Under two separate agreements with Semitropic, ACWD has contracted for a combined total of 150,000 AF of storage capacity. As of January 1, 2019, the District has approximately 136,300 AF of water in storage at the Semitropic banking program. However, the maximum rate at which stored water can be returned to ACWD from Semitropic is constrained by ACWD-Semitropic contractual limitations. As shown in Table 11, under the most severe drought conditions, the maximum rate at which water can be returned to ACWD is 13,500 AF/yr.

### ***Water Supply under Multiple Dry Year Conditions***

Table 12 provides summaries of the projected supply availabilities under a long-term (five-year) drought for 2036-2040 demand conditions. This multiple year drought sequence is based on the 1987-1991 historical hydrologic conditions, which represents the most severe five-year drought on record (based on projected availability of ACWD's supplies over the 1922-2003 hydrologic period). The results from this analysis indicate that ACWD's water supplies may be significantly reduced during a multiple year drought. However, the supply reduction would not be as severe as during a single, critically dry year condition. As with the single dry year condition, both local groundwater storage and off-site groundwater storage in Semitropic will play key roles in offsetting shortfalls in the District's other local and imported supplies.

## **SECTION 4 WATER SUPPLY AND DEMAND ANALYSES**

The following provides a comparison of ACWD water supplies and projected future demands, including the demands associated with the proposed Project. The supply/demand comparisons are provided for normal, single year dry, and multiple dry year conditions.

### **NORMAL YEAR WATER SUPPLY**

Table 13 provides a comparison of normal year water supply and demands under future levels of development in five-year increments from 2020 through 2040. As shown in the tables, ACWD's projected supply under normal year conditions is sufficient to meet current and projected future demands, which include demands for this Project.

### **SINGLE DRY YEAR WATER SUPPLY**

Table 14 documents the comparison of water supply and demand under a single critical dry year condition based on 1977 hydrologic conditions. As with the normal year conditions, the single dry year supply/demand comparison is provided in the same five-year increments between 2020 and 2040.

As shown in the table, ACWD anticipates facing a water supply shortage during single critical dry year supply conditions. This shortage is less than previously anticipated in previous forecasts due primarily to the reduction in forecast demands, discussed under Section 2 – Water Demands. District planning has held since the 1995 IRP that shortages anticipated during critical droughts of this magnitude and frequency (1 in 35 years) will be mitigated through a combination of demand management measures (including rationing) and purchases of dry year water through programs such as the Drought Water Bank (initiated during the 1987-1992 drought by the DWR).

### **MULTIPLE DRY YEAR WATER SUPPLY**

Table 15 documents projected water supply and demand under an extended dry period (multiple year drought). As documented in the UWMP, ACWD recognizes the hydrology of 1987 to 1991 to be the most severe five-year period for the District's imported and local supplies. The multiple year dry period was reviewed for the level of demand anticipated between the years of 2036 and 2040 as that is the highest level of demands anticipated during the next 20 years.

## SECTION 5 SUMMARY AND CONCLUSIONS

1. The City of Union City has proposed the Station East Project which would add new development as well as redevelop portions of the existing Decoto Industrial Park. The Project includes the addition of 964 residential dwelling units, 31,020 ft<sup>2</sup> of commercial space, and approximately 376,358 ft<sup>2</sup> of landscaped areas, including public parks, paseos, semi-private and private open space areas, as well as other landscaped areas.
2. The total projected demand for the Project is approximately 103 AF/yr.
3. The Project demand is consistent with planning assumptions and is included in the District's forecast and water supply planning established in the 2015 UWMP.
4. The District has diverse sources of supply that include imported water from the State Water Project and San Francisco Regional Water System, as well as local supplies from the Alameda Creek Watershed and underlying Niles Cone Groundwater Basin. Due to the configuration of the District's water production facilities, the proposed Project would not be dependent on any single source of supply.
5. The District's imported and local water supplies may be significantly cut back during droughts. In order to improve the District's dry year reliability, the District has secured 150,000 AF of off-site storage capacity at the Semitropic Groundwater Banking Program in Kern County. The District currently has approximately 146,100 AF in storage at the Semitropic Bank.
6. Key uncertainties facing the District's supplies include the effects of climate change as well as supply restrictions due to ongoing regulatory processes, endangered species and environmental protection. The District's projected long-term average supply reliability from the State has been reduced from 72% to 62% of Maximum Table A Allocation, primarily as a result of Delta export pumping restrictions to protect endangered species.
7. Under normal year conditions, the District's water supplies are projected to be sufficient to meet the future demands in the service area, including the Project's demands.
8. The District's UWMP identifies that the District may face water supply shortages during critically dry years. As described in the UWMP, the District would look to secure additional supplies through a DWR drought water bank or similar water purchase/transfer program under these severe drought conditions. The District may also implement a drought contingency plan, which would include provisions for the District customers to cut back on water use, the magnitude of which would depend on the severity of the shortage. Because the Project's demands are consistent with the UWMP demand forecast, the development of the Project will not result in increased shortages from that which is already factored into the District's planning. However, because the District anticipates potential future shortages under severe drought conditions, water supplies to the Project may be cut back during these severe dry year conditions. The level of cut back to the Project would be consistent with the



rest of the District's customers and would depend on the magnitude of the dry-year shortage facing the entire District.

9. As part of the Project description, the Project shall be developed with water efficient plumbing fixtures and irrigation systems, including but not limited to those listed in Attachment D – Water Efficiency Measures for New Developments.
10. The determination of water supply sufficiency is based on the implementation of the water efficiency measures set forth in paragraph 9 above and these water efficiency measures must be included in the environmental analysis for this Project and in the City's conditions of Project approval.
11. This water supply assessment is based on the proposed land use of the Station East Project, as provided to the District by the City of Union City (documented in Attachment A). If, prior to Project approval, the proposed land use within the Project area changes from what is currently incorporated in this water supply assessment, the District will evaluate the impacts that these changes may have on the District's water supplies. In the event that the land use changes impact the conclusions of this water supply assessment, the District may require additional mitigation measures as a condition of providing water service to the Project. If the proposed land use changes occur after Project approval and approval of the final subdivision maps, the District will evaluate the potential water supply impacts of these changes, and may require additional mitigation as a condition of providing water service to those areas with the changed land use condition.
12. The determination made in this water supply and demand analysis is based on the circumstances as of the date this water supply assessment was approved. In the event that subsequent evaluation of District-wide demands and supplies in-light of the water supply uncertainties set forth in this water supply assessment indicates that there will be an imbalance between demands and supplies, the District may require additional mitigation for the Project. For example, if District supplies are not sufficient to meet the demands, as a condition of water service, the District may require the Project proponent to: 1) acquire a new water supply to offset the water supply impacts of the Project, and/or: 2) invest in District-wide conservation programming (above and beyond that which is planned by the District) to offset the increase in District-wide demands that are a result of the Project; and/or 3) provide other mitigations deemed necessary to offset specific impacts identified (such as purchasing storage and recovery capacity in Semitropic Groundwater Banking Program).

The District reserves the right to impose conditions that go beyond the conditions that the City of Union City may impose as part of the environmental analysis at the time the District provides a verification of sufficient supply for the Project and/or enters into a water service agreement with the developer to provide water service to the Project.

Table 1 ACWD Past and Current Water Use (Acre-Feet)

Water Use Category	Fiscal Year											
	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19
<b>Distribution System</b>												
Single Family Residential	24,600	24,100	21,500	21,800	21,700	23,200	21,600	16,600	14,400	17,400	17,200	17,100
Multi-Family Residential	8,100	7,400	7,600	7,500	7,600	8,200	8,100	7,100	6,900	7,100	7,300	7,200
Commercial	5,200	5,100	4,700	4,700	3,800	5,000	5,000	4,600	4,400	4,700	4,900	4,800
Industrial	3,100	2,800	2,500	2,500	2,600	2,500	2,300	2,200	2,100	2,200	2,300	2,300
Institutional	2,100	2,100	1,800	1,700	1,900	2,000	1,800	1,300	1,000	1,300	1,400	1,400
Landscape	6,000	5,600	4,800	4,900	6,400	5,700	5,200	3,600	2,800	3,500	4,600	4,400
Other	100	200	100	200	100	200	200	200	200	200	200	200
Total Consumption	49,200	47,300	43,000	43,300	44,100	46,800	44,200	35,600	31,800	36,400	38,000	37,400
Unaccounted for Water	5,800	3,500	4,100	4,100	4,200	2,000	2,400	2,800	4,500	2,600	3,500	4,100
<b>Distribution System Total</b>	55,000	50,800	47,100	47,400	48,300	48,800	46,600	38,400	36,300	39,000	41,500	41,500
<b>Groundwater System</b>												
Private Groundwater	2,200	2,100	1,900	2,000	2,600	1,900	2,000	2,000	2,000	1,600	1,800	1,500
Groundwater Reclamation												
-ARP Pumping	6,600	4,900	7,000	11,300	12,000	11,000	11,400	11,200	11,900	11,500	10,900	10,700
-Saline Outflow	7,400	7,400	6,800	6,100	4,700	3,600	300	2,200	4,900	8,500	7,400	7,700
<b>Groundwater System Total</b>	16,200	14,400	15,700	19,400	19,300	16,500	13,700	15,400	18,800	21,600	20,100	19,900
<b>Grand Total</b>	71,200	65,200	62,800	66,800	67,600	65,300	60,300	53,800	55,000	60,600	61,600	61,400

Notes:

1. Annual consumption is based on units billed during the Fiscal Year (July 1 to June 30). The District uses a bi-monthly billing cycle.
2. All values rounded to the nearest 100 AF; total consumption values may not equal sum of individual components.
3. Multi-Family Residential, Commercial, Industrial, and Institutional categories do not include dedicated landscape irrigation water use within these categories.
4. Landscape water use includes all dedicated landscape accounts for Multi-Family Residential, Commercial, Industrial and Institutional customers.
5. Distribution System Total represents total water production, as reported in the District's Annual Groundwater Survey Reports.
6. Gross Non-Revenue Water is the difference between Distribution System Total and Total Measured Consumption, and includes distribution system losses; it is not the AWWA calculation for Distribution System Losses in Appendix G.
7. Groundwater System demands are based on annual reported values in the District's Annual Survey Report on Groundwater Conditions.
8. Groundwater Reclamation demands represent groundwater system demands to protect and reclaim the groundwater system from saltwater intrusion.
9. Groundwater System demands do not include "Other Outflows" as reported in the District's Annual Survey Report on Groundwater Conditions.

Table 2 Estimated Future Water Demands in the ACWD Service Area – Normal Year (AF/yr)

Water Use Category	Year				
	2020	2025	2030	2035	2040
<b>Distribution System</b>					
Single Family Residential	22,700	22,800	22,900	22,700	22,600
Multi-Family Residential	10,700	11,300	11,700	12,000	12,200
Commercial	7,100	7,500	8,000	8,400	8,800
Industrial	4,400	5,000	5,300	5,400	5,500
Institutional	4,400	4,800	5,400	5,400	5,400
Other	300	300	300	300	300
<b>Total Distribution System Demand (without losses)</b>	<b>49,600</b>	<b>51,700</b>	<b>53,500</b>	<b>54,200</b>	<b>54,700</b>
<b>Total Distribution System Demand (with losses)</b>	<b>52,700</b>	<b>55,000</b>	<b>56,900</b>	<b>57,600</b>	<b>58,200</b>
<b>2011-2016 Drought Demand Factor</b>	(5,300)	(3,000)	(3,000)	(3,000)	(3,000)
<b>Additional Conservation Program</b>	(200)	(400)	(700)	(900)	(1,100)
<b>Groundwater System Demand</b>	<b>16,200</b>	<b>16,200</b>	<b>16,200</b>	<b>16,200</b>	<b>16,200</b>
<b>Total ACWD Forecast Demands</b>	<b>63,400</b>	<b>67,700</b>	<b>69,400</b>	<b>69,900</b>	<b>70,300</b>

Notes:

1. All numbers are from the District’s 2015 UWMP. Forecast includes demand assumptions for the Project.
2. All values rounded to the nearest 100. Total values may not equal sum of individual components due to rounding errors.
3. Landscape Irrigation included within Multi-Family Residential, Commercial, Industrial, and Institutional categories
4. Adjustment for natural conservation (efficiency improvements due to plumbing code enhancements) is included in demand totals.
5. Total Distribution System Demand (with Non-Revenue Water) includes estimated Non-Revenue Water of 6%.
6. “2011-2016 Drought Demand Factor” is the estimated amount of demand reduction the District anticipates to remain after the drought ended.
7. Groundwater System Demands includes average annual values for: (1) private pumping (2,000 AF/yr), (2) ARP pumping (7,000 AF/yr), and (3) saline groundwater outflows (7,200 AF/yr).

Table 3 Estimated Future Water Demands in the ACWD Service Area – Critical Dry Year (AF/yr)

Water Use Category	Year				
	2020	2025	2030	2035	2040
<b>Distribution System</b>					
Single Family Residential	22,700	22,800	22,900	22,700	22,600
Multi-Family Residential	10,700	11,300	11,700	12,000	12,200
Commercial	7,100	7,500	8,000	8,400	8,800
Industrial	4,400	5,000	5,300	5,400	5,500
Institutional	4,400	4,800	5,400	5,400	5,400
Other	300	300	300	300	300
<b>Total Distribution System Demand (without losses)</b>	<b>49,600</b>	<b>51,700</b>	<b>53,500</b>	<b>54,200</b>	<b>54,700</b>
<b>Total Distribution System Demand (with losses)</b>	<b>52,700</b>	<b>55,000</b>	<b>56,900</b>	<b>57,600</b>	<b>58,200</b>
<b>2011-2016 Drought Demand Factor</b>	(5,300)	(3,000)	(3,000)	(3,000)	(3,000)
<b>Additional Conservation Program</b>	(200)	(400)	(700)	(900)	(1,100)
<b>Groundwater System Demand</b>	<b>12,300</b>	<b>12,400</b>	<b>12,600</b>	<b>12,700</b>	<b>12,900</b>
<b>Total ACWD Forecast Demands</b>	<b>59,500</b>	<b>63,900</b>	<b>65,800</b>	<b>66,400</b>	<b>67,000</b>

Notes:

1. All numbers are from the District's 2015 UWMP. Forecast includes demand assumptions for the Project.
2. All values rounded to the nearest 100. Total values may not equal sum of individual components due to rounding errors.
3. Numbers do not reflect demand reductions resulting from SB-7.
4. Landscape Irrigation included within Multi-Family Residential, Commercial, Industrial, and Institutional categories.
5. Adjustment for conservation includes savings due to District-sponsored water conservation programs.
6. Total Distribution System Demand (with losses) includes estimated system losses of 8.4%. Distribution system losses are calculated as the difference between total production and total measured consumption and include water for fire suppression, distribution system flushing, distribution system and service line leaks, etc.
7. Groundwater System demands include: (1) private pumping, (2) ARP pumping, and (3) saline groundwater outflows.

Table 4 Estimated Future Water Demands in the ACWD Service Area – Multiple Dry Years (AF/yr)

Water Use Category	Year				
	2036	2037	2038	2039	2040
<b>Distribution System</b>					
Single Family Residential	22,700	22,700	22,700	22,700	22,600
Multi-Family Residential	12,000	12,100	12,100	12,200	12,200
Commercial	8,500	8,600	8,600	8,700	8,800
Industrial	5,400	5,400	5,400	5,500	5,500
Institutional	5,400	5,400	5,400	5,400	5,400
Other	300	300	300	300	300
<b>Total Distribution System Demand (without losses)</b>	<b>54,300</b>	<b>54,400</b>	<b>54,500</b>	<b>54,600</b>	<b>54,700</b>
<b>Total Distribution System Demand (with losses)</b>	<b>57,900</b>	<b>58,000</b>	<b>58,000</b>	<b>58,100</b>	<b>58,200</b>
<b>2011-2016 Drought Demand Factor</b>	<b>(3,000)</b>	<b>(3,000)</b>	<b>(3,000)</b>	<b>(3,000)</b>	<b>(3,000)</b>
<b>Additional Conservation Program</b>	<b>(1,100)</b>	<b>(1,100)</b>	<b>(1,100)</b>	<b>(1,100)</b>	<b>(1,100)</b>
<b>Groundwater System Demand</b>	<b>15,000</b>	<b>11,300</b>	<b>11,300</b>	<b>11,700</b>	<b>9,200</b>
<b>Total ACWD Forecast Demands</b>	<b>68,800</b>	<b>65,200</b>	<b>65,200</b>	<b>65,700</b>	<b>63,300</b>

Notes:

1. All numbers are from the District’s 2015 UWMP. Forecast includes demand assumptions for the Project.
2. All values rounded to the nearest 100. Total values may not equal sum of individual components due to rounding errors.
3. Adjustment for natural conservation (efficiency improvements due to plumbing code enhancements) is included in demand totals.
4. Total Distribution System Demand (with losses) includes estimated system losses of 6%.
5. “2011-2016 Drought Demand Factor” is the estimated amount of demand reduction the District anticipates to remain due to the recent drought.
6. Groundwater System demands include: (1) private pumping, (2) ARP pumping, and (3) saline groundwater outflows.

Table 5 Water Demands for Station East Project

<b>Element</b>	<b>Planning units</b>		<b>GPD/ Unit</b>	<b>Demand estimate (AF/yr)</b>
Residential (Apartments and Condominiums)	856	Multi-Family Residential Units	56	53
Residential (Townhouses)	108	Multi-Family Residential Units	151	18
Commercial	31,020	Building Area (sq. ft.)	0.104	4
Other (park/landscape)	376,358	Lot Area (sq. ft.)	0.051	21
Estimated Total Project Demand (rounded)				97
Water Supplies Required ( <i>6% Unaccounted for Water</i> )				103
Approximate peak day demand in mgd ( <i>1.6x peaking factor</i> )				0.09

Notes:

1. Project details provided by City of Union City in WSA request letter.
2. Planning units for “Other (park/landscape)” provided by City of Union City from Open Space Calculations document created by Integral Communities

Table 6 Overview of Contracts and Permits for ACWD’s Existing Water Supplies

<b>SUPPLY COMPONENT</b>	<b>Category</b>	<b>Description</b>	<b>Maximum Quantity (AF/Yr)</b>	<b>Ever Used</b>
<b>Imported Supplies</b>				
State Water Project	Contract	In 1961, ACWD signed an agreement with the California State Department of Water Resources for a maximum annual amount of 42,000 AF/yr from the State Water Project (SWP). SWP water is delivered to ACWD via the South Bay Aqueduct. This contract expires in the year 2035.	42,000	Yes
San Francisco Regional Water System	Contract	In 2009, ACWD along with the other wholesale customers signed a new Master Sales Agreement with San Francisco. The new agreement has a term of 25 years and provides a commitment from San Francisco to provide, collectively, up to 184 mgd to its wholesale customers. ACWD’s contractual purchase amount is 13.76 mgd.	15,344	Yes
<b>Local Supplies</b>				
Alameda Creek Diversions for Groundwater Recharge	Water-rights permit	ACWD applied for a water rights permit from the SWRCB in 1949, granted in 1951 (permit no. 8428) to appropriate up to 40,000 AF/yr of unappropriated water from the Alameda Creek for groundwater storage and replenishment.	40,000	Yes
Del Valle Reservoir	Water-rights permit	ACWD received a water rights permit in from the SWRCB in 1958 (permit no. 11320) to appropriate up to 60,000 AF/yr of unappropriated water from Arroyo Del Valle in the Alameda Creek Watershed for storage and later beneficial use.	60,000	Yes
Groundwater Storage in Niles Cone Groundwater Basin  Desalination of Brackish Groundwater	Other	ACWD manages and protects the Niles Cone Groundwater Basin for water supply under its Alternative, including the Groundwater Management Policy (adopted 1989, amended 2001). This Policy is based on the statutory authority granted to ACWD under the County Water District Law; the Replenishment Assessment Act of ACWD; and local well ordinances.	N/A	Yes
<b>Banking / Transfers</b>				
Semitropic Groundwater Banking Program	Contract	In 1996 and in 2001 entered into agreements with Semitropic Water Storage District for 150,000 AF of combined groundwater storage capacity for banking of ACWD’s excess SWP supplies in wet years. The banked water is to be returned to ACWD in dry years via a series of exchanges. These banking agreements expire in the year 2035.	13,500 (maximum return quantity during critically dry years)	Yes

Table 7 Historical Water Supply Utilization by ACWD (AF/yr)

Fiscal Year	SWP supplies used at ACWD facilities	Del Valle	San Francisco Regional Water	Newark Desal Facility	Net Local Groundwater Recharge <sup>(2)</sup>	Recovered from Semitropic GW bank	Total In-District Water Supply	SWP Supply delivered to Semitropic GW bank
92-93	14,900	4,100	13,000	-	40,700	-	72,700	-
93-94	21,600	5,000	12,200	-	28,500	-	67,300	-
94-95	16,100	4,200	13,000	-	35,900	-	69,200	-
95-96	18,600	5,300	12,200	-	27,600	-	63,700	-
96-97	7,700	15,900	14,700	-	25,300	-	63,600	6,200
97-98	12,900	10,600	13,700	-	58,000	-	95,200	10,000
98-99	20,800	5,300	13,600	-	33,200	-	72,900	18,800
99-00	25,200	3,800	13,800	-	26,900	-	69,700	7,200
00-01	26,400	200	13,000	-	31,000	-	70,600	7,300
01-02	21,900	4,600	13,500	-	32,100	-	72,100	100
02-03	17,600	7,400	14,000	-	31,400	-	70,400	20,800
03-04	18,500	6,700	13,700	2,600	30,700	-	72,200	4,000
04-05	18,800	6,000	11,800	3,900	38,700	-	79,200	9,300
05-06	15,600	7,700	11,700	3,900	38,200	-	77,100	41,500
06-07	13,800	11,000	15,300	2,800	26,000	-	68,900	11,900
07-08	22,600	500	15,000	3,600	24,600	5,500	71,800	-
08-09	10,400	4,200	12,600	3,200	24,100	12,600	65,100	-
09-10	18,100	2,500	11,700	1,100	30,800	-	64,200	-
10-11	14,300	5,900	8,800	6,600	33,600	-	69,200	23,400
11-12	18,320	2,600	9,320	8,900	17,000	-	56,140	5,000
12-13	14,800	5,800	10,000	8,100	12,200	2,000	52,900	7,500
13-14	16,800	1,400	13,100	8,400	12,900	3,000	55,300	-
14-15	8,900	1,200	8,800	8,200	23,300	13,200	63,500	-
15-16	2,300	5,500	6,700	7,600	30,100	13,300	65,500	8,900
16-17	4,900	9,000	6,700	7,800	33,400	3,500	65,300	20,800
17-18	15,300	2,100	8,600	7,100	22,400	-	55,500	7,900
18-19	9,000	4,500	8,800	6,700	26,900	5,000	60,900	6,100

1. All values rounded to the nearest 100. Total values may not equal sum of individual components due to rounding errors.
2. Recharge figures less evaporation and other losses.



Table 8 Summary of Potential Future Factors that may Influence  
ACWD Water Supply Reliability

SUPPLY	Factor		
	Legal/Environmental	Water Quality	Climatic
<b>Imported Supplies</b>			
-State Water Project	ESA* requirements may constrain Delta pumping	Potential seawater intrusion impacts if Delta Levees fail.	Supply is dependent on hydrologic conditions
- San Francisco Regional Supply	ESA requirements may require additional reservoir releases	None anticipated	Supply is dependent on hydrologic conditions
<b>Local Supplies</b>			
- Groundwater Recharge	ESA requirements may impact groundwater recharge operations  Upstream water management activities and/or agreements with upstream agencies may impact supply availability	Upstream water management activities and/or land use activities may impact water quality	Supply is dependent on hydrologic conditions  Sea level rise may constrain usable storage of Niles Cone Groundwater Basin
- Groundwater Storage	None anticipated	None anticipated	Supply is dependent on availability of water to store in wet years
- Del Valle	ESA requirements may require downstream flow releases	None anticipated	Supply is dependent on hydrologic conditions
- Desalination	None anticipated	None anticipated	Supply is dependent on local groundwater conditions
- Recycled Water	None anticipated	None anticipated	None anticipated
<b>Banking/Transfers</b>			
- Semitropic Banking	Delta pumping constraints may impact ability to recover water through SWP exchanges  Sustainable Groundwater Management Act (SGMA) could impact future operations of the bank.	Banked groundwater may require treatment	Supply is dependent on availability of water to store in wet years

\* Endangered Species Act

Table 9 State Water Project Delivery Reliability Reports (DRR) Statistics

	2002 Report	2005 Report	2007 Report	2009 Report	2011 Report	2013 Report	2015 Report*	2017 Report*
Average % of Full Allocation in year of report	72%	69%	63%	60%	60%	60%	62%	62%
Primary cause for change	N/A	Changes in modeling assumptions and demands	Wanger Decision + limited Climate Change	Biological Opinions on Salmonids & Smelt + expanded Climate Change	No change	No change	Updates in assumptions and inputs to simulations	No change

\* The 2015 Report and 2017 Report were titled "State Water Project Delivery Capability Report," or DCR.

Table 10 Projected Normal Year Supply

<i>SUPPLY/DEMAND</i>	<i>Year</i>				
	<i>2020</i>	<i>2025</i>	<i>2030</i>	<i>2035</i>	<i>2040</i>
<b>SUPPLY COMPONENT</b>					
<b>Imported Supplies</b>					
- State Water Project	27,500	27,500	27,500	27,500	27,500
- San Francisco Regional	15,400	15,400	15,400	15,400	15,400
<b>Total Imported Supplies</b>	<b>42,900</b>	<b>42,900</b>	<b>42,900</b>	<b>42,900</b>	<b>42,900</b>
<b>Local Supplies</b>					
- Groundwater Recharge	24,200	23,900	23,600	23,300	23,000
- Groundwater Storage	0	0	0	0	0
- Del Valle	5,000	5,000	5,000	5,000	5,000
- Desalination	5,100	5,100	5,100	5,100	5,100
- Recycled Water	0	0	0	0	0
<b>Total Local Supplies</b>	<b>35,300</b>	<b>34,000</b>	<b>33,700</b>	<b>33,400</b>	<b>33,100</b>
<b>Banking/Transfers</b>					
- Semitropic Banking	0	0	0	0	0
<b>TOTAL SUPPLY</b>	<b>77,200</b>	<b>76,900</b>	<b>76,600</b>	<b>76,300</b>	<b>76,000</b>

\*Normal Year conditions based on projected water supply availability under 1971 hydrologic conditions.

Table 11 Projected Critical Year Supply

<i>SUPPLY/DEMAND</i>	<i>Year</i>				
	<i>2020</i>	<i>2025</i>	<i>2030</i>	<i>2035</i>	<i>2040</i>
<b>SUPPLY COMPONENT</b>					
<b>Imported Supplies</b>					
- State Water Project	3,400	3,400	3,400	3,400	3,400
- San Francisco Regional	8,200	8,500	8,900	9,300	9,600
<b>Total Imported Supplies</b>	<b>11,600</b>	<b>11,900</b>	<b>12,300</b>	<b>12,700</b>	<b>13,000</b>
<b>Local Supplies</b>					
- Groundwater Recharge	15,100	15,200	15,200	15,200	15,200
- Groundwater Storage	10,000	10,000	10,000	10,000	10,000
- Del Valle	0	0	0	0	0
- Desalination	5,100	5,100	5,100	5,100	5,100
- Recycled Water	0	0	0	0	0
<b>Total Local Supplies</b>	<b>30,200</b>	<b>30,300</b>	<b>30,300</b>	<b>30,300</b>	<b>30,300</b>
<b>Banking/Transfers</b>					
- Semitropic Banking	13,500	13,500	13,500	13,500	13,500
<b>TOTAL SUPPLY</b>	<b>59,500</b>	<b>63,900</b>	<b>65,800</b>	<b>66,400</b>	<b>67,000</b>

\*Critical Dry Year conditions based on projected water supply availability under 1977 drought conditions.

Table 12 Projected Multiple Dry Year Supply

<i>SUPPLY/DEMAND</i>	<i>Year</i>				
	<i>2036</i>	<i>2037</i>	<i>2038</i>	<i>2039</i>	<i>2040</i>
<b>SUPPLY COMPONENT</b>					
<b>Imported Supplies</b>					
-State Water Project	9,100	6,400	25,900	11,200	6,700
- San Francisco Regional	12,600	9,400	9,500	9,100	9,200
<b>Total Imported Supplies</b>	<b>21,700</b>	<b>15,800</b>	<b>35,400</b>	<b>20,300</b>	<b>15,900</b>
<b>Local Supplies</b>					
- Groundwater Recharge	16,100	16,600	11,900	16,000	14,800
- Groundwater Storage	7,300	9,900	0	7,600	4,400
- Del Valle	900	300	500	200	4,600
- Desalination	5,100	5,100	5,100	5,100	5,100
- Recycled Water	0	0	0	0	0
<b>Total Local Supplies</b>	<b>29,400</b>	<b>31,900</b>	<b>17,500</b>	<b>28,900</b>	<b>28,900</b>
<b>Banking/Transfers</b>					
- Semitropic Banking	14,900	13,500	24,400	16,100	13,600
<b>TOTAL SUPPLY</b>	<b>66,000</b>	<b>65,200</b>	<b>65,200</b>	<b>65,700</b>	<b>63,300</b>

\*Multiple Dry Year conditions based on projected water supply availability under 1987-91 drought conditions.

Table 13 Water Supply and Demand Comparison: Normal Year

<b>SUPPLY/DEMAND</b>	<b>Year</b>				
	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>
Total Supply	77,200	76,900	76,600	76,300	76,000
Forecast Demands	62,900	67,000	68,600	69,300	69,800
Anticipated Shortage	<i>none</i>	<i>none</i>	<i>none</i>	<i>none</i>	<i>none</i>

Notes:

1. All values rounded to the nearest 100 AF.
2. Forecast Demands include Project demands.

Table 14 Water Supply and Demand Comparison: Critical Dry Year

<b>SUPPLY/DEMAND</b>	<b>Year</b>				
	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>
Total Supply	55,300	55,700	56,100	56,500	56,800
Forecast Demands	59,500	63,900	65,800	66,400	67,000
Anticipated Shortage	(4,200)	(8,200)	(9,700)	(9,900)	(10,200)

Notes:

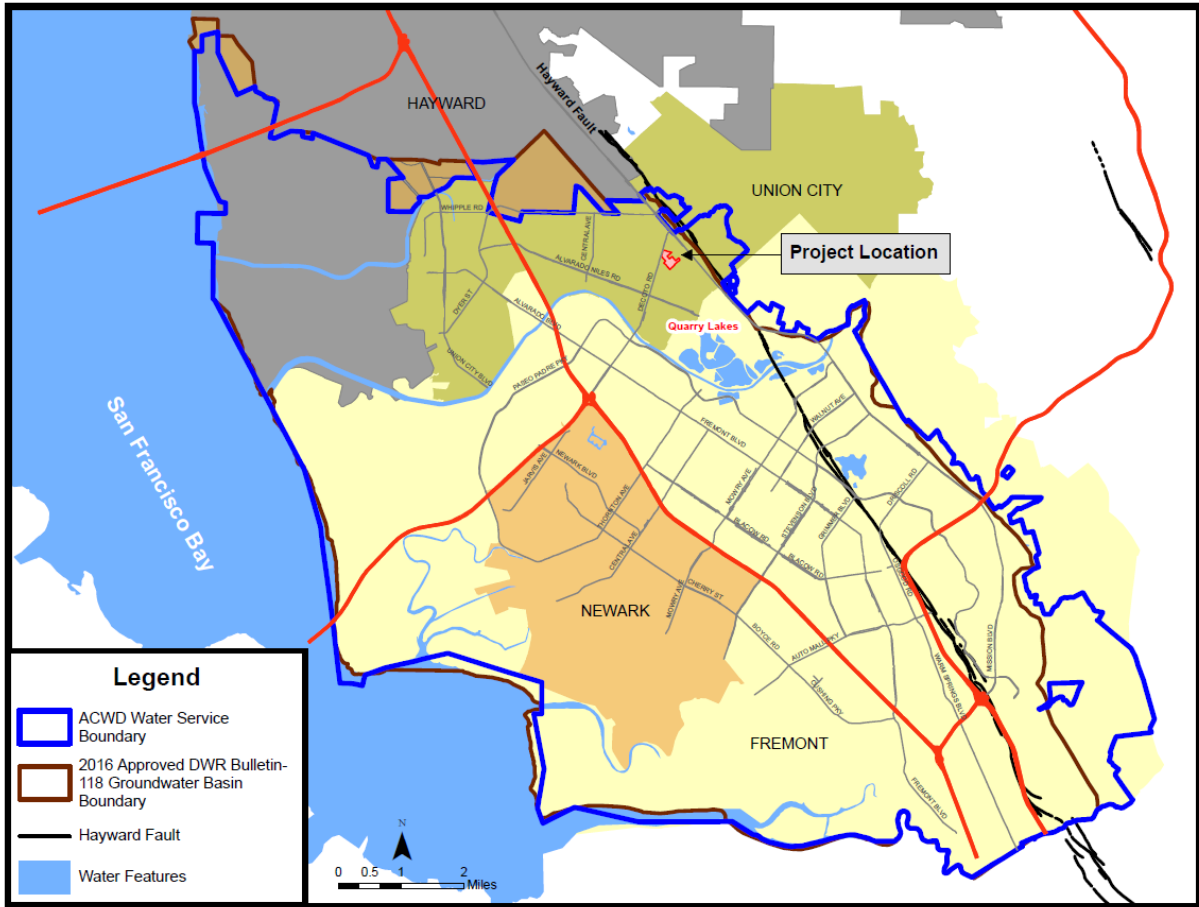
1. All values rounded to the nearest 100 AF.
2. Forecast Demands include Project demands.
3. Critical Dry Year conditions are based on projected water supply availability under 1977 drought conditions.

Table 15 Water Supply and Demand Comparison: Multiple Dry Year

<b>SUPPLY/DEMAND</b>	<b>Year</b>				
	<b>2036</b>	<b>2037</b>	<b>2038</b>	<b>2039</b>	<b>2040</b>
Total Supply	66,000	61,200	77,300	65,300	58,400
Forecast Demands	68,800	65,200	65,200	65,700	63,300
Anticipated Shortage	(2,800)	(4,000)	<i>none</i>	(400)	(4,900)

Notes:

1. All values rounded to the nearest 100 AF.
2. Forecast Demands include Project demands.
3. Multiple Dry Year conditions are based on projected water supply availability under 1987-91 drought conditions; supply includes access to stored water in Semitropic



**Figure 1 ACWD Service Area and Station East Project Location Map**

## REFERENCES

- ASSOCIATION OF BAY AREA GOVERNMENTS, 2009. *Projections and Priorities 2009: Building Momentum*.
- ALAMEDA COUNTY WATER DISTRICT, 1995. *Integrated Resources Planning Study*.
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**ATTACHMENT A**  
**LETTER OF REQUEST FROM CITY OF UNION CITY FOR WATER SUPPLY**  
**ASSESSMENT AND REQUEST FROM ALAMEDA COUNTY WATER DISTRICT FOR**  
**30-DAY EXTENSION TO COMPLETE WATER SUPPLY ASSESSMENT**





February 18, 2020

Ms. Juni Rotter  
 Development Services Manager  
 Alameda County Water District  
 43885 S. Grimmer Blvd.  
 Fremont, CA 94538

Subject: Water Supply Assessment Request for Station East Residential/Mixed Use Project  
 (Application No. AG-20-001, SP-20-001, A-20-001, AT-20-001, TTM-20-001, DA-20-001)

Dear Ms. Rotter:

The City of Union City is reviewing applications from Integral Communities related to the Station East Residential/Mixed-Use Project (project), an infill project involving the redevelopment of an approximately 24-acre site (project site) between 7<sup>th</sup> Street and the Union Pacific Railroad (UPRR) tracks in the City of Union City (City), Alameda County, California (see Figure 1). The project proposes the demolition of the existing site features and buildings within the Station East area and the development of 964 housing units and 31,020 sq. ft. of commercial uses. The proposed unit mix for analysis is 366 apartments, 490 condominiums, and 108 townhouse-style condominiums. The following is the bedroom count for the units:

- Studio: 40
- 1 bed: 382
- 2 bed: 334
- 3 bed: 128
- 4 bed: 80

In total, the proposed project would include a total of approximately 8.2 acres of landscaped areas, including public parks and paseos, semi-private and private open space areas, and other landscaped areas. There are no other unique project elements that would have a need for water.

The project site includes the following assessor's parcel numbers and addresses. Please note that the applicant just completed a lot line adjustment to modify some parcels to better align with the project boundary. These are denoted with the term "Portion." The Assessor's Office has yet to assign new assessor parcel numbers for these lots.

Parcel	Address
87-21-5-2	700 Decoto Road
87-21-13-1	33950 7 <sup>th</sup> Street
87-21-13-2	7 <sup>th</sup> Street
87-23-12	701 Bradford Way
87-23-10	7 <sup>th</sup> Street
87-21-4-2 (Portion)	33955 7 <sup>th</sup> Street
87-23-13	Bradford Way
87-23-14 (Portion)	Zwissig Way

**CITY OF UNION CITY**

34009 Alvarado-Niles Rd • Union City • CA • 94587  
 unioncity.org

The City's General Plan identifies the site as part of the Station East area. This area is a priority development area for the City in order to remove blight, build the property tax base, and provide jobs and housing.

Pursuant to Section 15083.5 of the State CEQA Guidelines, the City of Union City is formally requesting preparation of a Water Supply Assessment (WSA) by Alameda County Water District to evaluate water resources with respect to the proposed Station East Residential/Mixed Use Project. The City will be preparing an environmental impact report (EIR) to evaluate potential environmental effects of the project and will use information on water demand and supply provided in the WSA as a resource for completing the EIR analysis. The City's primary consultant for the EIR is ICF International. A Notice of Preparation will be issued in the next few weeks.

We understand that the WSA is required to be submitted within 90 days after the receipt of this letter. We look forward to working with the District and through this process. Please contact Leslie Carmichael, Contract Planner, at [lesliec@unioncity.org](mailto:lesliec@unioncity.org) if you need any additional information.

Sincerely,

*Carmela Campbell*

Carmela Campbell  
Economic and Community Development Director

Attachments:

- Figure 1, Location Map

CC: Erin Efner (via email [Erin.Efner@icf.com](mailto:Erin.Efner@icf.com))  
Jessica Viramontes (via email [Jessica.Viramontes@icf.com](mailto:Jessica.Viramontes@icf.com))



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April 21, 2020

VIA ELECTRONIC MAIL

Carmela Campbell ([CarmelaC@UnionCity.org](mailto:CarmelaC@UnionCity.org))  
Economic and Community Development Director  
City of Union City  
34009 Alvarado-Niles Road  
Union City, CA 94587

Dear Ms. Campbell:

Subject: Station East Project, Water Supply Assessment, Request for Extension

Pursuant to the City of Union City's February 18, 2020, request, Alameda County Water District (District) is in the process of preparing a water supply assessment (WSA) for the Station East Project. The State Water Code requires that the District complete the WSA within 90 days of receipt of the request, by May 17, 2020. Our original intent was to bring the WSA to our Board for approval at its regularly scheduled meeting on May 14, 2020.

However, due to ongoing complexities stemming from the *Order of the County Health Officer to Shelter in Place* (Order No. 20-04), the District requests a 30-day extension to complete the WSA, pursuant to California Water Code Section 10910.

With this revised schedule, we anticipate bringing the WSA to our Board for approval at the next regularly scheduled Board meeting on June 11, 2020. If you would like to discuss this request, please contact Devon Becker at (510) 668-6511 or [devon.becker@acwd.com](mailto:devon.becker@acwd.com). We would also be happy to meet with you via teleconference at your convenience.

Sincerely,

Juniet E. Rotter  
Development Services Manager

By E-mail

cc: Leslie Carmichael, City of Union City ([LeslieC@UnionCity.org](mailto:LeslieC@UnionCity.org))  
Devon Becker, ACWD ([devon.becker@acwd.com](mailto:devon.becker@acwd.com))  
Thomas Niesar, ACWD ([thomas.niesar@acwd.com](mailto:thomas.niesar@acwd.com))



**ATTACHMENT B**  
**ACWD URBAN WATER MANAGEMENT PLAN 2015-2020**

UWMP not included with this version of the document due to the size of the attachment. The UWMP is posted on the District's website at <https://www.acwd.org/365/Urban-Water-Management-Plan>





**ATTACHMENT C**  
**ACWD WATER SUPPLY CONTRACTS**

State Water Project Water Supply Contract and San Francisco Water Supply Contract can be found in Appendix A-1 and A-2 of the UWMP, respectively.

They may also be found at <https://www.acwd.org/730/Water-Supply-Contracts>



## ATTACHMENT D

### WATER EFFICIENCY MEASURES FOR NEW DEVELOPMENTS

<b>WATER EFFICIENCY MEASURES FOR NEW COMMERCIAL DEVELOPMENT</b>			
GPF = gallons per flush, GPM = gallons per minute, IWF = integrated water factor			
Indoors	Water Usage Rates	Recommendation Details	Federal or State Requirements
Toilets	1.1 GPF	Tank style toilets: Maximum Performance (MaP) rated Premium High Efficiency Toilet (HETs) or WaterSense labeled HETs with a maximum flush volume of 1.1 gallons per flush (GPF) and a MaP rating of 600 grams; dual flush MaP Premium or WaterSense labeled HETs with an average flush volume maximum of 1.1 GPF. Flushometer or Valve type toilets : WaterSense labeled HETs with a maximum flow of 1.28 GPF and a MaP rating of at least 350 grams.	California Energy Commission (CEC) - Maximum gallons per flush or dual-flush effective flush volume; if sold or for sale on or after January 1, 2014; 1.28 GPF
Urinals	0.125 GPF	High efficiency urinals (HEU) with a flush volume of 0.125 GPF or less.	CEC - Maximum gallons per flush on or after January 1, 2016; 0.125 GPF (wall-mounted) or 0.5 GPF (other)
Showerheads	1.8 GPM	Showerheads with a flow rate of 1.8 GPM or less at 80 psi. Limit to one showerhead per shower stall of 2,500 square inches or less, or shower stall designed so that only one shower outlet can be in operation at a time.	CEC - 1.8 GPM (80 psi), effective July 1, 2018.
Lavatory Faucets	0.5 GPM	Lavatory faucets with aerators that restrict flow to 0.5 GPM or less.	CEC - 1.2 GPM, (60 psi), effective July 1, 2016.
Kitchen Faucets	1.8 GPM	Kitchen faucets with aerators that restrict flow to 1.8 GPM or less at 60 psi; with temporary flow increase to 2.2 GPM for filling pots and pans.	CEC - 1.8 GPM (60 psi) with optional temporary flow of 2.2 GPM, effective January 1, 2016.
Clothes Washers	4.5 IWF	High efficiency clothes washers (HEW) with an integrated water factor of 4.5 or less. IWF rated washers have a maximum average water use of 4.5 gallons per cubic foot of laundry.	CEC - Maximum integrated water factor (IWF) January 1, 2018: integrated water factor (IWF): top-loading 8.8, front-loading 4.1
Cooling Towers		Should be equipped with a recirculating system with a minimum of five (5) cycles of concentration. Newly constructed cooling towers should be operated with conductivity controllers, as well as make up and blowdown meters.	
Food Steamers		Should be boiler less or self-contained, using 3.0 GPH or less where applicable.	
Ice Machine		Should be air-cooled, or use no more than 20 gallons of water per 100 pounds of ice and should be equipped with a recirculating cooling unit.	
Commercial Refrigeration		Should be air-cooled or if it is water cooled it should have a closed loop system, no one through, single pass systems.	
Pre-rinse Dishwashing Spray Valve	1.2 GPM	Should have a maximum flow rate of 1.2 or less GPM.	CEC - Manufactured on or after January 1, 2016 shall be capable of cleaning 60 plates in an average time of not more than 30 secs per plate.
Vehicle Wash Facility		Shall reuse a minimum of 50% of the water from previous vehicles in subsequent washes.	
Outdoors		Recommendation Details	Federal or State Requirements
Same recommendations as for Residential Developments			

<b>WATER EFFICIENCY MEASURES FOR NEW COMMERCIAL DEVELOPMENT</b>			
GPF = gallons per flush, GPM = gallons per minute, IWF = integrated water factor			
<b>Indoors</b>	<b>Water Usage Rates</b>	<b>Recommendation Details</b>	<b>Federal or State Requirements</b>
Toilets	1.1 GPF	Tank style toilets: Maximum Performance (MaP) rated Premium High Efficiency Toilet (HETs) or WaterSense labeled HETs with a maximum flush volume of 1.1 gallons per flush (GPF) and a MaP rating of 600 grams; dual flush MaP Premium or WaterSense labeled HETs with an average flush volume maximum of 1.1 GPF. Flushometer or Valve type toilets : WaterSense labeled HETs with a maximum flow of 1.28 GPF and a MaP rating of at least 350 grams.	California Energy Commission (CEC) - Maximum gallons per flush or dual-flush effective flush volume; if sold or for sale on or after January 1, 2014: 1.28 GPF
Urinals	0.125 GPF	High efficiency urinals (HEU) with a flush volume of 0.125 GPF or less.	CEC - Maximum gallons per flush on or after January 1, 2016: 0.125 GPF (wall-mounted) or 0.5 GPF (other)
Showerheads	1.8 GPM	Showerheads with a flow rate of 1.8 GPM or less at 80 psi. Limit to one showerhead per shower stall of 2,500 square inches or less, or shower stall designed so that only one shower outlet can be in operation at a time.	CEC - 1.8 GPM (80 psi), effective July 1, 2018.
Lavatory Faucets	0.5 GPM	Lavatory faucets with aerators that restrict flow to 0.5 GPM or less.	CEC - 1.2 GPM, (60 psi), effective July 1, 2016.
Kitchen Faucets	1.8 GPM	Kitchen faucets with aerators that restrict flow to 1.8 GPM or less at 60 psi; with temporary flow increase to 2.2 GPM for filling pots and pans.	CEC - 1.8 GPM (60 psi) with optional temporary flow of 2.2 GPM, effective January 1, 2016.
Clothes Washers	4.5 IWF	High efficiency clothes washers (HEW) with an integrated water factor of 4.5 or less. IWF rated washers have a maximum average water use of 4.5 gallons per cubic foot of laundry.	CEC - Maximum integrated water factor (IWF) January 1, 2018: integrated water factor (IWF): top-loading 8.8, front-loading 4.1
Cooling Towers		Should be equipped with a recirculating system with a minimum of five (5) cycles of concentration. Newly constructed cooling towers should be operated with conductivity controllers, as well as make up and blowdown meters.	
Food Steamers		Should be boiler less or self-contained, using 3.0 GPH or less where applicable.	
Ice Machine		Should be air-cooled, or use no more than 20 gallons of water per 100 pounds of ice and should be equipped with a recirculating cooling unit.	
Commercial Refrigeration		Should be air-cooled or if it is water cooled it should have a closed loop system, no one through, single pass systems.	
Pre-rinse Dishwashing Spray Valve	1.2 GPM	Should have a maximum flow rate of 1.2 or less GPM.	CEC - Manufactured on or after January 1, 2016 shall be capable of cleaning 60 plates in an average time of not more than 30 secs per plate.
Vehicle Wash Facility		Shall reuse a minimum of 50% of the water from previous vehicles in subsequent washes.	
<b>Outdoors</b>		<b>Recommendation Details</b>	<b>Federal or State Requirements</b>
Same recommendations as for Residential Developments			



DIRECTORS

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August 6, 2020

VIA ELECTRONIC MAIL

Carmela Campbell ([CarmelaC@UnionCity.org](mailto:CarmelaC@UnionCity.org))  
Economic and Community Development Director  
City of Union City  
34009 Alvarado-Niles Road  
Union City, CA 94587

Dear Ms. Campbell:

Subject: Station East Project, Water Supply Assessment, Response to Request for Additional Apartment Units

Pursuant to the City of Union City's August 4, 2020, request, the Alameda County Water District (District) has reviewed the proposed change to the Station East Project (Project), in which the project sponsor (Integral Communities) has revised their bedroom mix to account for 10 additional apartment units in Planning Area 1. The result of the proposed change is a total of 974 proposed housing units instead of 964. The proposed unit mix is now 376 apartments, 490 condominiums, and 108 townhouse-style condominiums. No other changes are proposed, and the total number of bedrooms for the Project will remain unchanged.

Upon review, the District has determined that the proposed minor change to the Project will result in a water demand consistent with the existing Water Supply Assessment (WSA), which was approved by the District's Board of Directors on June 11, 2020. Pursuant to Water Code Section 10910 (h)(1) that specifies requirements for an additional water supply assessment, the proposed changes to the project will not result in a substantial increase in water demand for the Project, and therefore the existing WSA is sufficient.

Please contact Devon Becker at (510) 668-6511 or [devon.becker@acwd.com](mailto:devon.becker@acwd.com) with any further questions.

Sincerely,

Juniet E. Rotter  
Development Services Manager

db/jm

By E-mail

cc: Leslie Carmichael, City of Union City ([LeslieC@UnionCity.org](mailto:LeslieC@UnionCity.org))  
Devon Becker, ACWD ([devon.becker@acwd.com](mailto:devon.becker@acwd.com))  
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