

UNION CITY

PUBLIC REVIEW DRAFT ENVIRONMENTAL IMPACT REPORT

REPORT SCH# 2021010303

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Executive Summary

This Draft Environmental Impact Report (EIR) evaluates the potential impacts of the proposed Station District Specific Plan, referred to as the “Proposed Plan,” in Union City, located in Alameda County, California. The Proposed Plan was created to implement the vision of the Union City 2040 General Plan (UC 2040), which calls for the transformation of the Station District area—a 471-acre area surrounding the Union City BART Station, which is designated as a Priority Development Area by the Metropolitan Transportation Commission—into a dynamic, transit-oriented district with a diversity of uses that create a vibrant atmosphere where people live, work, and socialize. The planning process was informed by land use, transportation, design, and policy considerations provided by the Community Advisory Committee (CAC), community, Planning Commission, and City Council. This Draft EIR has been prepared on behalf of the City of Union City, in accordance with the California Environmental Quality Act (CEQA). The City of Union City is the lead agency for this EIR, as defined by CEQA.

An EIR is intended to inform decision-makers and the general public about the potential significant environmental impacts of a proposed project. The EIR also considers mitigation measures to minimize significant impacts and evaluates feasible alternatives to the Proposed Plan that may reduce or avoid one or more significant environmental impacts. Based on the alternatives analysis, the EIR identifies an environmentally superior alternative.

This EIR is a program EIR that examines the potential effects resulting from implementing designated land uses, goals, and policies in the Proposed Plan. The impact assessment evaluates the Proposed Plan as a whole and identifies the broad, area-wide and regional effects that may occur with implementation. As a programmatic document, this EIR does not assess project-specific impacts that may result from developments pursuant to the Proposed Plan. To the extent that any future development project made possible by the Proposed Plan may have individual, site-specific impacts not addressed in this program EIR, such projects would be subject to separate, project-level environmental review, as required by State law. Projects consistent with the Proposed Plan and the findings of this EIR may also be eligible for streamlined environmental review as permitted under CEQA. This EIR represents the City’s best effort to evaluate the implementation and buildout of the Proposed Plan through its horizon year of 2040. While it is anticipated that conditions may change, the assumptions used are the best available at the time of preparation and reflect existing knowledge of patterns of development.

1.1 Proposed Plan

The Proposed Plan was developed to replace the Decoto Industrial Park Study Area (DIPSA) Specific Plan (DIPSA Plan), which was initially adopted in 1994. In 2018, the City was awarded a Priority Development Area (PDA) Planning Grant by the Metropolitan Transportation Commission to update the DIPSA Plan. The Proposed Plan addresses a similar area to the former DIPSA Plan; however, there are some differences consistent with the land use framework provided by the Union City 2040 General Plan (UC2040). Some or all of the DIPSA Plan would be fully retired with the adoption of the Proposed Plan.

The Proposed Plan was initiated to comprehensively examine the existing conditions in the Station District boundary (Planning Area) and to create a vision for the Planning Area's future. Although the Proposed Plan does not mandate or require a date by which buildout of the Planning Area must occur, a horizon year of 2040 is assumed for planning purposes. The purpose and objectives of the Proposed Plan, included below, inform the policies and implementing actions of the Proposed Plan. A full project description is included in Chapter 2 of this Draft EIR.

PLANNING AREA

The Planning Area encompasses approximately 471 acres and is anchored around the Union City Intermodal Station. The Intermodal Station functions as a multi-modal transit hub serving BART, UC Transit, AC Transit, and the Dumbarton Express with the future opportunity of direct connections to passenger rail including ACE, Capitol Corridor, and Dumbarton Rail. The Proposed Plan establishes five distinct subareas within the Planning Area—the Core, Station East, the Marketplace, the Gateway, and the Civic Center—each of which is envisioned to have a distinct identity and land use framework.

PURPOSE

California Government Code Section 65450 states that planning agencies may prepare specific plans for the systematic implementation of the general plan for all or part of the area covered by the general plan. Once a specific plan is adopted, no rezoning, subdivision, use permit, development plan, or other entitlement for use shall be authorized for construction within the specific plan area that is not in substantial conformance with that specific plan. The Proposed Plan can be considered as the bridge between UC2040 and individual development surrounding the Union City Intermodal Station, containing policies and programs to guide decision-making related to land use, circulation, infrastructure, historic preservation, urban design, economic development, and the environment. The Proposed Plan is a document to be adopted by the City Council that serves the following purposes:

- Establish a long-range vision that reflects the aspirations of the community and outlines steps to achieve this vision;
- Establish long-range standards and criteria by which development will proceed that will guide City departments, Planning Commission, and City Council decision-making, and establish standards for the conservation, development, and utilization of natural resources as applicable;

- Provide a basis for judging whether specific development proposals and public projects are aligned with plan policies;
- Plan in a manner that meets future land needs based on the projected population and job growth;
- Allow City departments, other public agencies, and private developers to design projects that will enhance the character of the Planning Area, preserve environmental resources, and minimize hazards; and
- Provide the basis implementing regulations, programs, capital improvements, implementation actions, and financing measures.

OBJECTIVES

The Proposed Plan provides the basis for the Planning Area's land use and development policy and represents community priorities that will govern development and conservation. Specific guiding principles that underpin the overall strategy, policies, design, and investments that are included in the Proposed Plan include the following:

- **Promote a Vibrant, Mixed-Use Community.** Foster an integrated urban community with a diverse mix of residential, commercial, office, industrial, and civic uses for residents, workers, and visitors.
- **Create a Well-Connected District.** Extend the existing east-west central spine to link the Marketplace, Intermodal Station, the Core, and Station East, prioritizing pedestrian and bicycle connections. Create an interconnected network of streets, sidewalks, bicycle lanes, pathways, and multi-use trails that knit the district together and enable people to traverse the area easily and directly on foot or bicycle.
- **Promote a Network of Open Space Amenities.** Establish a cohesive system of parks and plazas to enhance the area's livability and provide open spaces within walking distance of residences and businesses, including linking greenways that enable active recreation.
- **Ensure High Quality Design.** Promote building and landscape design that create a sense of place and reflect the district's unique contemporary identity, with unified streetscapes, signage and urban design elements that foster identify, and a sense of place.
- **Promote Sustainability.** Continue to promote green leadership in Union City by maintaining and expanding the Station District as a sustainable and healthy community with sustainable building and landscape design, sustainable water use and irrigation practices, and reduced energy use. Encourage outdoor and active living with more opportunities for healthy choices including walking and biking, readily available access to transit, housing in close proximity to workplaces, and access to parks, play spaces and open space for kids and families to enjoy.
- **Embrace Diversity.** Accommodate the needs of people of diverse backgrounds, interests, and income levels, creating an inclusive, accessible, inviting, and safe place for all.
- **Support Housing Development and Provide a Variety of Housing Types.** Support a range of housing opportunities, including affordable housing, to address Union City's housing needs and the State's housing objectives for the area.

- **Ensure Long-Term Fiscal Sustainability.** Provide a range of jobs, retail, and housing uses to ensure fiscal sustainability and support necessary infrastructure improvements.

ESTIMATED BUILDOUT OF THE PROPOSED PLAN

Buildout refers to the estimated amount of new development and corresponding growth in population and employment that is likely to take place under the Proposed Plan through the planning horizon year of 2040. Buildout estimates should not be considered a prediction for growth, as the actual amount of development that will occur through 2040 is based on many factors outside of the City's control. Therefore, buildout estimates represent one potential set of outcomes rather than definitive figures. Additionally, the designation of a site for a specific land use in the Proposed Plan does not guarantee that a site will be developed or redeveloped at the assumed density during the planning period, as future development will rely primarily on each property owner's initiative. Buildout projections of this EIR do not include the total amount of potential development that could be accommodated by the Proposed Plan. Rather, the buildout assumes that only a portion of the total potential development will occur by 2040.

The Proposed Plan is anticipated to result in a total buildout of 14,400 residents, 5,650 housing units, and 18,200 jobs.¹ Of these projections, the Proposed Plan would result in 9,400 net new residents, 3,930 net new housing units, and 15,900 net new jobs.

1.2 Areas of Known Controversy

During the drafting of the Proposed Plan and this EIR, public agencies and members of the public were invited to provide feedback on the documents. The following topics were identified as areas of controversy, based on comments at public meetings on the Proposed Plan and at the EIR Scoping Meeting, and responses to the Notice of Preparation (NOP):

Many of the public's responses to the NOP focused on the interrelated causes and effects of climate change as they are connected to the Proposed Project. Several members of the public expressed concern that the Proposed Project could deplete the City's water supply, develop areas of open space and farmland, and exacerbate transportation-related greenhouse gas emissions.

Transportation Impacts. The majority of public comments on the Proposed Project were related to traffic and transportation impacts. Many members of the public and local organizations, including the Bay Area Transportation Working Group and Save Union City Hills, expressed concern about increased traffic congestion, taxes, air pollution, and noise impacts caused by construction of the Quarry Lakes Parkway Project and buildout of the Proposed Plan. They argued that construction of the Quarry Lanes Parkway Project would have a significant physical impact on open space in the area, induce driving demand, and increase VMT at the behest of investments in bicycle, pedestrian, and transit facilities; many of these commenters requested that the City consider a linear park in the area where the road would run. It should be noted that the Quarry

¹ The 2040 population projection assumes 2.50 persons per household and a 5.0 percent housing vacancy rate. The total number of future jobs was calculated based on jobs-per-square-foot assumptions for retail/service, office, industrial and institutional/public jobs.

Lakes Parkway Project has undergone separate environmental review and impacts of the project related to transportation are not applicable to the impact discussion in this Draft EIR. The Alameda County Transportation Commission certified the Final EIR in 2009. In addition, the City Councils of Union City and Fremont, each acting as Responsible Agencies under CEQA, accepted the certified Final EIR, and conditionally approved the project in the same timeframe.

Multiple members of the Purple Lotus Temple, a Buddhist temple located near the Planning Area, objected to the detrimental effects that increased traffic noise, congestion, and vehicle-related air pollution might have on the tranquil setting of the temple.

Historic Resources. The Proposed Plan could alter historic-era farming buildings in the Gateway subarea of the Planning Area including the Silva Farm and the Peterson Farmhouse. Several members of the public expressed their opposition to the removal or conversion of land currently in agricultural use at a time when carbon sequestration is needed, and wished to see the historic farmland and related open space designated for conservation. Members of the public were concerned about potential loss of historical resource and character in the Planning Area. Some argued that the historic farmhouses represent some of the last remaining historic areas of interest in the Planning Area.

Housing. Several members of the public expressed opposition to the construction of any housing in the hillside area of Union City, particularly single-family or townhome “sprawling development.”

Additionally, environmental impacts classified as significant and unavoidable have been identified in the resource topics of aesthetics, air quality, greenhouse gas emissions, and transportation; inasmuch as they may be controversial to the general public, agencies, or stakeholders, they are described briefly here.

AESTHETICS

The 2040 General Plan identifies several scenic vistas in Union City, with the closest vistas to the Planning Area being the foothills of the Coastal Range (i.e., hillside area) which frame the eastern edge of the city and creek corridors such as the Alameda Creek. Development under the Proposed Plan, including construction of multi-story buildings, could obstruct views of the hillside area. Development facilitated in the Planning Area would be in the existing urbanized area and largely undeveloped Gateway subareas, and new structures could be oriented or scaled in such a way that views of the hillside area would be blocked from specific locations in the Planning Area. The Core subarea designations would allow buildings up to 160 feet in height, which have the potential to block currently unobstructed scenic views of the hillside area in areas of existing lower-intensity development within each subarea. New development in the urbanized area may also be visible from the ridges in the hillside area or from isolated locations in other open space areas of Union City outside of the Planning Area. As noted in the 2040 General Plan EIR, such obstruction of scenic vistas would constitute a significant impact.

While policies in the 2040 General Plan, Union City Design Guidelines, Intermodal Station District and Transit Facility Plan, and the Proposed Plan together with associated zoning standards would reduce these impacts to the maximum extent practicable, there are no mitigation measures available

to avoid impacts of scenic vistas entirely that would also fulfill the objectives of and implement the Proposed Plan. As such, the impact would remain significant and unavoidable.

AIR QUALITY

Development under the Proposed Plan could violate air quality standards or contribute cumulatively to an existing or projected air quality violation. Any development under the Proposed Plan that would exceed Bay Area Air Quality Management District (BAAQMD) regional significance thresholds would contribute to the nonattainment designation of the San Francisco Bay Area Air Basin (SFBAAB), which constitutes an air quality violation. The Alameda County portion of the SFBAAB is currently designated a nonattainment area for California and national ozone, California PM_{2.5} and California PM₁₀₀ ambient air quality standards (AAQS).

The concurrent construction of a multitude of individual development projects that could occur at any one time in the Planning Area under the Proposed Plan would generate combined criteria pollutant emissions on a daily basis that would exceed the BAAQMD's project-level thresholds. In addition, depending on the size and scale of an individual development project, along with its construction schedule and other parameters, there may also be instances where the daily construction emissions generated by a single development project within the Planning Area could also exceed the BAAQMD's criteria pollutant thresholds. These emissions could contribute to ozone formation and other air pollution in the SFBAAB, which at certain concentrations, can contribute to short- and long-term human health effects. Mitigation Measures AQ-1 through AQ-6 are proposed to reduce impacts of construction emissions, but impacts would remain significant and unavoidable.

Additionally, although policies and the overall approach of the Proposed Plan—which fosters bicycle and pedestrian infrastructure, and supports sustainable land use patterns including mixed-use design and increased density—would reduce the severity of criteria pollutants, buildout of the Proposed Plan would nevertheless generate long-term operational emissions in excess of the BAAQMD's project-level thresholds. Accordingly, operational criteria pollutant emissions associated with development under the Proposed Plan would potentially result in a significant impact on air quality and Mitigation Measures AQ-7 through AQ-9 would be required. The impact would remain significant and unavoidable.

Even with the Proposed Plan's policies and mitigation measures, additional emissions generated by new stationary sources, vehicle trips, and construction activity could expose sensitive receptors to cancer and non-cancer risks excess of the BAAQMD significance thresholds. Mitigation Measures AQ-10 and AQ-11 would minimize health risks by requiring health risk assessments and air quality equipment, but impacts would remain significant and unavoidable.

ENERGY, GREENHOUSE GASES, AND CLIMATE CHANGE

While the Proposed Plan would be consistent with policies and plans that encourage energy conservation, energy efficiency, and sustainability, it would not achieve a 14.3 percent VMT per capita reduction target by 2040. The Proposed Plan's mobile-source greenhouse gas (GHG) emissions would conflict with SB 743 and the State's long-term climate change planning goals even after the application of recommended mitigation measures. As such, the Proposed Plan would

result in significant and unavoidable impacts related to operational GHG emissions and conflicts with policies and regulation adopted for the purpose of reducing the emissions of GHGs.

TRANSPORTATION

Goals and policies in the Proposed Plan are designed to reduce VMT in the Planning Area by fostering high intensity development around the Union City Intermodal Station, through transportation improvements, and with trip reduction measures. However, even with implementation of these VMT reduction measures, VMT per service population in the Planning Area would not achieve the 15 percent reduction from existing regional levels by 2040 as recommended by the OPR Technical Advisory. There are no other feasible mitigation measures available because the Proposed Plan emphasizes development designed to reduce VMT and contains goals and policies aimed at minimizing VMT, including transportation demand management strategies. This impact remains significant and unavoidable.

1.3 Alternatives to the Proposed Plan

The following alternatives are described and evaluated in Chapter 4 of this Draft EIR. Projected buildout for each of the alternatives and the Proposed Plan is summarized in Table ES-1: Comparison of Key Characteristics; Existing, Alternatives, and Proposed Plan.

NO PROJECT ALTERNATIVE

Consistent with Section 15126.6(e)(2) of the CEQA Guidelines, under the No Project Alternative, the Proposed Plan would not be adopted. Development would proceed as envisioned under current plans and regulations, including UC2040. This alternative would keep all current land use designations and definitions applicable to the Planning Area from UC2040. The new Corridor Mixed Use designation would not be applied in the Gateway subarea, and the Marketplace Mixed Use designation would not be applied in The Marketplace subarea. In addition, portions of the Gateway subarea designated as Open Space under the Proposed Plan would remain Residential with three to six dwelling units per acre (du/acre) or Residential with 10 to 17 du/acre. Roadway improvements, parks, paseos, and plazas in the Proposed Plan that are not included in UC2040; the updated Bicycle and Pedestrian Master Plan; and the Parks and Recreation Master Plan would not be constructed. This includes a finer-grained network of streets in all subareas. However, the Station East Residential/Mixed Use Project within the Station East subarea would be constructed under this alternative because that project was approved by the City Council on June 8, 2021, separate from the Proposed Plan. The No Project Alternative would implement all UC2040 policies but would not include the additional Proposed Plan goals, policies, and design standards that specifically guide development within the subareas, improve multi-modal mobility, and support sustainability goals.

Overall, the No Project Alternative is projected to result in 6,900 net new residents, 2,900 new housing units, and 11,500 new jobs in the Planning Area by 2040.

INCREASED EMPLOYMENT ALTERNATIVE

This alternative would increase employment density in proximity to the Union City Intermodal Station in order to encourage more people to use public transit for their commute and provide additional job opportunities for people currently or prospectively living within walking distance in the Planning Area. Studies have shown that locating jobs in proximity to transit is more strongly correlated with transit ridership than locating housing near transit. A new Transit-Oriented Employment designation that seeks to foster high-tech research and development (R&D) and office space with a floor area ratio (FAR) of up to 2.5 would be applied to the Restoration Site within The Core subarea. This new designation would not allow housing development in order to prioritize employment-oriented uses in proximity to the station. In addition, allowable residential density within the Station Mixed Use Commercial designation would be reduced to 60 to 100 du/acre, compared to 100 to 165 du/ac under the Proposed Plan. This alternative would retain all Proposed Plan policies, including those related to a finer-grained network of streets, improved bicycle facilities, and a network of paseos, plazas, and open spaces within all subareas.

Overall, the Increased Employment Alternative is projected to increase the allowable concentration of office and R&D land uses in The Core subareas by 7.6 percent and result in approximately 6,000 new residents, 2,500 new housing units, and 17,300 new jobs in the Planning Area by 2040.

REDUCED DEVELOPMENT ALTERNATIVE

The Reduced Development Alternative represents a reduced level of development compared to the Proposed Plan. This alternative would involve restoring the land use designations and density/intensity standards that were in force under the 2002 Union City General Plan, with revisions that would allow for additional residential density in The Core area of the Station District, adjacent to the Union City Intermodal Station. Under this alternative, the Retail Commercial designation would apply to The Marketplace subarea, and additional policies which would limit the amount of net new retail on the site so as to minimize the increase in vehicle trips to the site from outside the Planning Area and limit any increase in VMT. Overall, the Reduced Development Alternative is projected to result in approximately 4,400 new residents, 1,800 new housing units, and 6,000 new jobs in the Planning Area by 2040.

Table ES-1: Comparison of Key Characteristics; Existing, Alternatives, and Proposed Plan

	<i>Planning Area Total</i>		
	<i>Population</i>	<i>Housing (units)</i>	<i>Jobs</i>
Existing (2020)	5,000	1,720	2,300
Proposed Plan – (2040) Net New	9,400	3,930	15,900
Proposed Plan – (2040) Existing and Net New	14,400	5,650	18,200
No Project Alternative (2040) – Net New	6,900	2,900	11,500
No Project Alternative (2040) – Existing and Net New	11,900	4,620	13,800
Increased Employment Alternative (2040) – Net New	6,000	2,500	17,300
Increased Employment Alternative (2040) – Existing and Net New	11,000	4,220	19,600
Reduced Development Alternative (2040) – Net New	4,400	1,800	6,000
Reduced Development Alternative (2040) – Existing and Net New	9,400	3,520	8,300

Source: Dyett & Bhatia, 2021

1.4 Impacts Summary and Environmentally Superior Alternative

IMPACTS SUMMARY

Table ES-2: Summary of Impacts and Mitigation Measures presents the summary of the significant impacts of the Proposed Plan identified in the EIR, and the Proposed Plan mitigation measures that reduce these impacts. Detailed discussions of the impacts and proposed policies and mitigation measures that reduce impacts are in Chapter 3.

IDENTIFICATION OF ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA Guidelines (Section 15126.6) require the identification of an environmentally superior alternative among the alternatives analyzed. Table 4-4.1: Summary of Impacts for Alternatives, summarizes the alternatives’ overall environmental impacts for each topic presented in Section 4.4. For the Proposed Plan, seven impacts were expected to be significant and unavoidable, seven impacts were expected to be less than significant with mitigation, and 43 impacts were expected to be less than significant. For the No Project Alternative, seven impacts were expected to be significant and unavoidable, six impacts were expected to be less than significant with mitigation, and 44 impacts were expected to be less than significant. For the Increased Employment Alternative, seven impacts were expected to be significant and unavoidable, five impacts were

expected to be less than significant with mitigation, and 45 impacts were expected to be less than significant. For the Reduced Development Alternative, six impacts were expected to be significant and unavoidable, five impacts were expected to be less than significant with mitigation, and 46 impacts were expected to be less than significant. Therefore, the Reduced Development Alternative is the environmentally superior alternative.

Table ES-2: Summary of Impacts and Mitigation Measures			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
3.1 Aesthetics			
<p>3.1-1 Implementation of the Proposed Plan would have a substantial adverse effect on scenic vistas.</p> <p>Buildings up to 160 feet in height would be allowed in the Core subarea. The intensity and scale of permitted development could obstruct views of the foothills of the Coastal Range (i.e., hillside area) that frame the eastern edge of the city, which are considered scenic vistas, therefore resulting in a potentially significant impact.</p> <p>Since taller buildings have the potential to partially block views of the hills and no mitigation is available to entirely eliminate the impact, the cumulative impact of the Proposed Plan on scenic resources would be significant and unavoidable.</p>	<p>Though policies within UC 2040, the Union City Design Guidelines, the Intermodal Station District and Transit Facility Plan, and the Proposed Plan together with associated zoning standards would reduce impacts to scenic vistas to the maximum extent practicable, beyond this there are no feasible mitigation measures available to avoid impacts entirely. As such, this impact would remain significant and unavoidable.</p>	Significant and unavoidable	Not applicable
<p>3.1-2 Development under the Proposed Plan would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.</p>	None required	Less than significant	Not applicable

Table ES-2: Summary of Impacts and Mitigation Measures			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
3.1-3 Development under the Proposed Plan would not substantially degrade the existing visual character or quality of public views of the site and its surroundings in non-urbanized areas or conflict with applicable zoning and other regulations governing scenic quality in urbanized areas.	None required	Less than significant	Not applicable
3.1-4 Development under the Proposed Plan would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.	None required	Less than significant	Not applicable
In combination with other past, present, and reasonably foreseeable projects, the Proposed Plan would not result in a significant cumulative impacts related to scenic resources within a state scenic highway; degradation of visual character; or light and glare.	None required	Less than significant	Not applicable
3.2 Air Quality			
3.2-1 Implementation of the Proposed Plan would not conflict with or obstruct the implementation of the applicable air quality plan.	None required	Less than significant	Not applicable

Table ES-2: Summary of Impacts and Mitigation Measures			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
<p>3.2-2 Implementation of the Proposed Plan would result in a cumulatively considerable net increase of criteria pollutants for which the Project region is nonattainment under an applicable federal or State ambient air quality standard.</p> <p><i>Construction</i></p> <p>Construction associated with buildout of the Proposed Plan would result in the temporary generation of ozone precursors (ROG, NO_x), CO, and particulate matter emissions that could result in short-term impacts on ambient air quality within the Planning Area and contribute to ozone formation and other air pollution in the SFBAAB. As such, construction emissions generated in the planning area by implementation of the Proposed Plan would result in a potentially significant impact and mitigation would be required.</p> <p><i>Operations</i></p> <p>The Proposed Plan’s operational emissions would exceed the BAAQMD’s significance thresholds for all pollutants (ROG, NO_x, CO, PM10, PM2.5). Accordingly, operational criteria pollutant emissions associated with</p>	<p>MM AQ-1: Project-Level Air Quality Analysis for Construction.</p> <p>The City shall require that applicants proposing development of projects within the Planning Area shall compare their project size with the BAAQMD screening sizes appropriate to their project for construction criteria pollutants found in Table 3-1 in the BAAQMD’s current CEQA guidelines (2017). If the project is less than the screening limit for its project type, then applicants shall confirm to the City whether construction-related activities would include any of the following:</p> <ul style="list-style-type: none"> • Demolition; • Simultaneous occurrence of more than two construction phases (e.g., paving and building construction would occur simultaneously) or construction would occur simultaneous with other Proposed Plan development; • Simultaneous construction of more than one land use type (e.g., project would develop residential and commercial uses on the same site) (not applicable to high density infill development); • Extensive site preparation (i.e., greater than default assumptions used by the CalEEMod model for grading, cut/fill, or earth movement); or • Extensive material transport (e.g., greater than 10,000 cubic yards of soil import/export) requiring a considerable amount of haul truck activity. <p>If the project is less than the screening limit for the project type and construction would involve none of the five conditions above, then the project would not be required to conduct a project-level emissions analysis.</p>	<p>Construction: Significant and unavoidable</p> <p>Operations: Significant and unavoidable</p>	<p>Construction: Significant and unavoidable</p> <p>Operations: Significant and unavoidable</p>

Table ES-2: Summary of Impacts and Mitigation Measures			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
<p>development under the Proposed Plan would result in a potentially significant impact on air quality and mitigation would be required.</p> <p>Individual development projects may still generate construction and operational emissions in excess of the BAAQMD's project-level thresholds, even with implementation of MM AQ-1 through MM AQ-9. Accordingly, ROG, NO_x, PM₁₀, and PM_{2.5} emissions associated with development under the Proposed Plan are conservatively identified as cumulatively considerable, resulting in a significant and unavoidable impact.</p>	<p>For projects that exceed the construction screening sizes or include the above activities, a project-level air quality analysis would be required to evaluate the project's construction emissions and compare them to BAAQMD daily thresholds for construction. If the project-level analysis results in exceedances of BAAQMD thresholds, Mitigation Measure AQ-2 through Mitigation Measure AQ-5 shall be implemented, as well as any project-specific measures. If the project's emissions are reduced to levels below BAAQMD construction thresholds with implementation of all feasible mitigation measures, impacts would be less than significant. If the project still exceeds BAAQMD construction thresholds with mitigation implemented, the project would be required to purchase mitigation credits as described in Mitigation Measure AQ-6.</p> <p>MM AQ-2: Require at Least Tier 4 Final Engines on Construction Equipment.</p> <p>The City shall require that all applicants proposing development of projects within the Planning Area shall in turn require their contractors, as a condition of contract, to reduce construction-related exhaust emissions by ensuring that all off-road equipment greater than 50 horsepower (hp) and operating for more than 20 total hours over the entire duration of construction activities shall operate on at least an EPA-approved Tier 4 Final or newer engine. Exemptions can be made for specialized equipment where Tier 4 engines are not commercially available within 200 miles of the project site. The construction contract must identify these pieces of equipment, document their unavailability, and ensure that they operate on no less than an EPA-approved Tier 3 engine. CARB regulations will result in the percentage of Tier 4 engines increasing over the next several years.</p>		

Table ES-2: Summary of Impacts and Mitigation Measures			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
	<p>Applicants must conduct recordkeeping of equipment verification documents for construction equipment and the City has the right to review equipment logs.</p> <p>MM AQ-3: Require Use of Diesel Trucks with 2010-Compliant Model Year Engines.</p> <p>The City shall require that all applicants proposing development of projects within the Planning Area shall in turn require their 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 EMFAC database. In the event that 2010 model year or newer diesel trucks cannot be obtained, the contractor must provide documentation to the City showing that a good faith effort to locate such engines was conducted.</p> <p>Applicants must conduct recordkeeping of truck verification documents and the City has the right to review truck logs.</p> <p>MM AQ-4: Require Additional Fugitive Dust Best Management Practices.</p> <p>The City shall require that all applicants proposing development of projects within the Planning Area shall in turn require their contractors, as a condition of contract, to reduce construction-related fugitive dust by implementing the following measures in addition to the BAAQMD's basic control measures at all construction and staging areas. The following measures are based on the BAAQMD's current CEQA guidelines.</p> <ul style="list-style-type: none"> • All exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe. 		

Table ES-2: Summary of Impacts and Mitigation Measures			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
	<ul style="list-style-type: none"> • All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph. • Wind breaks (e.g., trees, fences) shall be installed on the windward side(s) of actively disturbed areas of construction. Wind breaks should have at maximum 50 percent air porosity. • Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established. • The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time shall be limited. Activities shall be phased to reduce the amount of disturbed surfaces at any one time. • All trucks and equipment, including their tires, shall be washed off prior to leaving the site. • Site accesses to a distance of 100 feet from the paved road shall be treated with a 6 to 12 inch compacted layer of wood chips, mulch, or gravel. • Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent. <p>MM AQ-5: Require Low-VOC Coatings during Construction.</p> <p>The City shall require that all applicants proposing development of projects within the Planning Area shall in turn 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</p>		

Table ES-2: Summary of Impacts and Mitigation Measures			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
	<p>of 10 grams/liter (g/L) or less are used during construction. The project applicant will submit evidence of the use of low-VOC coatings to the BAAQMD prior to the start of construction. Applicants must conduct recordkeeping of coatings used during construction.</p> <p>MM AQ-6: Purchase of Mitigation Credits for Construction Emissions Exceeding the BAAQMD's Daily Pollutant Thresholds.</p> <p>For proposed developments that are estimated to result in exceedances of thresholds with implementation of all feasible mitigation measures, the applicants shall coordinate with a third-party or governmental entity to pay for criteria pollutant offsets for every year in which construction emissions are estimated to exceed the BAAQMD thresholds. If the estimate shows exceedances of multiple criteria pollutants above the BAAQMD thresholds, then offsets must be obtained to address each pollutant above the thresholds. Emission reduction projects and fee will be determined in consultation between the applicant and the third-party or governmental entity and will include offset provider administrative costs. The agreement that specifies fees and timing of payment shall be provided to the City for review and signed by the applicant and the third-party or governmental entity. The emission reductions shall be secured prior to any year in which construction activity is estimated to result in an exceedance. The payment for the emissions can either be on an annual basis or done once upfront prior to construction.</p> <p>MM AQ-7: Promote Green Consumer Products.</p> <p>For all projects developed within the Planning Area, the City shall require that developer(s) provide education for residential and commercial tenants concerning green</p>		

Table ES-2: Summary of Impacts and Mitigation Measures			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
	<p>consumer products. Prior to receipt of any certificate of final occupancy, the project sponsors shall work with the City of Union City to develop electronic correspondence to be distributed by email to new residential and commercial tenants that encourages the purchase of consumer products that generate lower than typical VOC emissions. Examples of green products may include low-VOC architectural coatings, cleaning supplies, and consumer products, as well as alternatively fueled landscaping equipment.</p> <p>MM AQ-8: Project-Level Air Quality Analysis for Operations.</p> <p>For all proposed development within the Planning Area, the City shall require project applicants to compare their project size with the BAAQMD screening sizes appropriate to their project for operational criteria pollutants found in Table 3-1 in the BAAQMD's current CEQA guidelines.</p> <p>If the project is less than the screening sizes for the project type, then the project is not required to conduct a project-level analysis of operational emissions.</p> <p>For projects that exceed the operations screening sizes, a project-level air quality analysis would be required to evaluate the project's operational emissions and compare them to BAAQMD daily thresholds for operation. If the project-level analysis results in exceedances of BAAQMD thresholds, MM AQ-7 shall be implemented. If the project's emissions are reduced to levels below BAAQMD operations thresholds with implementation of all feasible mitigation measures, impacts would be less than significant. If the project still exceeds BAAQMD operations thresholds with mitigation implemented, the project would be required to purchase mitigation credits as described in MM AQ-9.</p>		

Table ES-2: Summary of Impacts and Mitigation Measures			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
	<p>MM AQ-9: Purchase of Mitigation Credits for Operational Emissions Exceeding the BAAQMD's Daily Pollutant Thresholds.</p> <p>For proposed developments that are estimated to result in exceedances of thresholds with implementation of all feasible mitigation measures, the applicants shall coordinate with a third-party or governmental entity to pay for criteria pollutant offsets for every year in which operational emissions are estimated to exceed the BAAQMD thresholds. If the estimate shows exceedances of multiple criteria pollutants above the BAAQMD thresholds, then offsets must be obtained to address each pollutant above the thresholds. Emission reduction projects and fee will be determined in consultation between the applicant and the third-party or governmental entity and will include offset provider administrative costs. The agreement that specifies fees and timing of payment shall be provided to the City for review and signed by the applicant and the third-party or governmental entity. The emission reductions shall be secured prior to any year in which operational activity is estimated to result in an exceedance. The payment for the emissions can either be on an annual basis or done once upfront prior to operation.</p> <p><i>Construction</i></p> <p><i>Adherence to MM AQ-2 through MM AQ-5 would reduce PM_{10} and $PM_{2.5}$ emissions to less-than-significant levels for the Proposed Plan. However, with respect to ROG, NO_x, PM_{10} and $PM_{2.5}$ exhaust emissions, there could be foreseeable conditions under the Proposed Plan where the amount of construction activity for an individual development project, or a combination of these projects, could result in the generation of these pollutant emissions that exceed their respective BAAQMD significance thresholds (i.e., 54 pounds</i></p>		

Table ES-2: Summary of Impacts and Mitigation Measures			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
	<p><i>per day [lb/day] for ROG and NOx, 82 lb/day for exhaust PM₁₀, and 54 lb/day for exhaust PM_{2.5}). If the proposed project exceeds BAAQMD construction thresholds with incorporation of the above mitigation measures, MM AQ-6 would be implemented. However, because it cannot be concluded that the offset programs required in MM AQ-6 would always be available in the future at the time and in the amount needed for any given future development, for the purposes of this EIR analysis, construction air quality impacts are conservatively assumed to be significant and unavoidable.</i></p> <p><i>Operations</i></p> <p><i>If the proposed project exceeds BAAQMD operations thresholds with incorporation of MM AQ-7 and MM AQ-8, MM AQ-9 would be implemented, which would require the offset operational criteria pollutant emissions resulting from development under the Proposed Plan through the purchase of mitigation credits. As with construction emissions, because it cannot be concluded that offset programs would always be available in the future at the time and in the amount needed for any given future development, for the purposes of this EIR analysis, operational air quality impacts are conservatively assumed to be significant and unavoidable.</i></p>		
<p>3.2-3 Implementation of the Proposed Plan would expose sensitive receptors to substantial pollutant concentrations.</p> <p>Construction activities of future development projects under the Proposed Plan would generate DPM and PM_{2.5} that could expose sensitive receptors within 1,000</p>	<p>MM AQ-10: Require Future Projects Located within 1,000 Feet of Receptors to Perform a Health Risk Assessment.</p> <p>The City shall require that all applicants proposing development of projects within the Planning Area and within 1,000 feet of existing sensitive receptors, as defined by the BAAQMD, shall prepare a site-specific health risk assessment (HRA). If the HRA demonstrates, to the satisfaction of the City, that the health risk exposures for</p>	Significant and unavoidable	Significant and unavoidable

Table ES-2: Summary of Impacts and Mitigation Measures

<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
<p>feet of the Planning Area to significant health risks.</p> <p>Development under the Proposed Plan may result in the installation or operation of new stationary sources of TACs (e.g., emergency generators) and an increase in traffic levels. Consequently, both new and existing receptors near stationary sources and roadways may be exposed to significant health risks from TACs and impacts are potentially significant.</p> <p>Existing nearby DPM and PM_{2.5} sources and future development under the Proposed Plan contribute to a cumulative health risk for sensitive receptors within the Planning Area.</p> <p>Due to the uncertainty of future project-level HRAs, it is conservatively assumed that the Proposed Plan would result in significant and unavoidable health impacts from TAC emissions and this impact is cumulatively considerable.</p>	<p>adjacent receptors will be less than the BAAQMD project-level and cumulative-level thresholds, then additional mitigation would be unnecessary. However, if the HRA demonstrates that health risks would exceed the BAAQMD project-level or cumulative-level thresholds, additional feasible on- and off-site mitigation shall be analyzed by the applicant to help reduce risks to the greatest extent practicable.</p> <p>MM AQ-1 I: Require Air Quality Equipment to Minimize Health Risks.</p> <p>The City shall require that all applicants proposing development of projects within the Planning Area that includes new development of residential projects and other new land use developments which would site new sensitive receptors such as schools and daycares in commercial buildings and within 1,000 feet of road segments with an ADT of greater than 10,000 vehicles per day, to install indoor air quality equipment, such as enhanced air filters (air filters rated at a minimum efficiency reporting value [MERV] 13 or higher) or equivalent mechanisms, to minimize health risks for future receptors.</p> <p><i>Even with the Proposed Plan's policies and mitigation measures, additional emissions generated by new stationary sources, vehicle trips, and construction activity could expose receptors to cancer and non-cancer risks excess of the BAAQMD significance thresholds. MM AQ-1 I would reduce TAC and PM_{2.5} exposure to future sensitive receptors but not for receptors at land uses that have already been constructed. Because risks associated with additional vehicle traffic are the result of personal transportation decisions, there is no feasible mitigation beyond MM AQ-1 I to address this impact. In addition, MM AQ-1 I would not apply to existing sensitive receptors that are present before</i></p>		

Table ES-2: Summary of Impacts and Mitigation Measures			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
	<i>new construction or operational activity commences. Therefore, after mitigation, this impact would be significant and unavoidable.</i>		
3.2-4 Implementation of the Proposed Plan would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.	None required	Less than significant	Not applicable
In combination with other past, present, and reasonably foreseeable projects, the Proposed Plan would not result in a significant cumulative impacts related to conflicting with an applicable air quality plan, or other emissions (such as those leading to odors).	None required	Less than significant	Not applicable
3.3 Biological Resources			
3.3-1 Implementation of the Proposed Plan could have a substantial adverse effect, either directly or through habitat modifications, on 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 or U.S. Fish and Wildlife Service, but impacts would be reduced with implementation of Mitigation Measure BIO-1.	MM BIO-1: Worker Environmental Awareness Training Program. Where a biologist has identified areas supporting or potentially supporting sensitive biological resources, the City shall require project applicants proposing development projects within the Planning Area to prepare and implement a worker environmental awareness training program prior to equipment staging, ground disturbing activities (e.g., grading, excavation, backfill), or vegetation trimming and removal. The training program should be provided to all construction personnel (contractors and subcontractors) and include the following information:	Potentially significant	Less than significant with mitigation incorporated

Table ES-2: Summary of Impacts and Mitigation Measures			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
<p>Habitat in the Station East, The Core, and Gateway subareas would be affected by development facilitated by the Proposed Plan. The Proposed Plan would facilitate permanent development in riparian vegetation along Old Alameda Creek and conversion of undeveloped land to urban development. New utilities and infrastructure would be constructed through cropland, annual grassland, and riparian habitat. In addition, development facilitated by the Proposed Plan could affect trees and pockets of vegetation in the urbanized areas of the Planning Area that may provide suitable habitat for protected biological resources, including migratory nesting birds and bats. If future development were to degrade or remove suitable habitat for special-status species or result in impacts on special-status individuals, there could be significant impacts on special-status species.</p>	<ul style="list-style-type: none"> • The need to avoid effects on sensitive biological resources and the importance of protecting habitat; • Penalties for not complying with applicable State and federal laws and permit requirements; • General restrictions and guidelines to be followed by all construction personnel to reduce or avoid effects on sensitive biological resources during construction; • The life history and habitat requirements of special-status species potentially occurring in or adjacent to the improvements footprint; • The terms and conditions of the Biological Opinions and other applicable permits; and • The training program should educate construction supervisors and managers about invasive plant identification and the importance of controlling and preventing the spread of invasive plant infestations. 		
<p>3.3-2 Implementation of the Proposed Plan would have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations</p>	<p>None required</p>	<p>Less than significant</p>	<p>Not applicable</p>

Table ES-2: Summary of Impacts and Mitigation Measures			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.			
3.3-3 Implementation of the Proposed Plan would have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act (including, but not limited to, marshes, vernal pools, coastal areas, etc.) through direct removal, filling, hydrological interruption, or other means.	None required	Less than significant	Not applicable
3.3-4 Implementation of the Proposed Plan would not 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.	None required	Less than significant	Not applicable
3.3-5 Implementation of the Proposed Plan would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	None required	Less than significant	Not applicable
3.3-6 Implementation of the Proposed Plan would not conflict with the provisions of an adopted habitat conservation plan, natural	None required	No impact	Not applicable

Table ES-2: Summary of Impacts and Mitigation Measures			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
community conservation plan, or other approved local, regional, or State habitat conservation plan.			
In combination with other past, present, and reasonably foreseeable projects, the Proposed Plan would not result in a significant cumulative impacts related to special status species, riparian or natural habitat, federally protected wetlands, movement of native or migratory fish or wildlife species, conflict with adopted local policies or ordinances protecting biological resources, or conflict with adopted habitat conservation plans.	None required	Less than significant	Not applicable
3.4 Cultural and Tribal Cultural Resources			
3.4-1A Implementation of the Proposed Plan at the program level could cause a substantial adverse change in the significance of a historical resource, as defined as physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historic resource would be materially impaired, but this impact is reduced through the implementation of Mitigation	MM CUL-1: Historical Resource Evaluation Process. The City shall require that all proposed development within the Planning Area undergo additional investigation to determine the project-level impact to built-environment historical resources. Project sponsors shall consult with the City regarding the historical resource status of any historic-aged built-environment resources that may existing within or in immediate proximity to the proposed development site. Depending upon the specific site, the City may require the project sponsor to engage a historic preservation professional to complete a California register evaluation of	Significant	Less than significant with mitigation incorporated

Table ES-2: Summary of Impacts and Mitigation Measures			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
Measure CUL-1 (Guidelines Section 15064.5).	<p>any unevaluated historic-aged built-environment resources where projects would occur.</p> <p>For future projects on parcels found to contain qualifying historical resources, project-level impacts will be analyzed and appropriate mitigation measures will be included in the CEQA document.</p>		
<p>3.4-1B Implementation of the Proposed Plan at the project level would cause a substantial adverse change in the significance of a historical resource (the Peterson Farmhouse), as defined as physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historic resource would be materially impaired (Guidelines Section 15064.5).</p>	<p>MM CUL-2: Conduct a Building Relocation Feasibility Study.</p> <p>If demolition, destruction, relocation, or significant alteration is required of the Peterson Farmhouse due to a project that is approved under the Proposed Plan, the City shall conduct a feasibility study that examines the relocation of the building to a compatible site. The study will include alternatives that recognize contributing site features as well as the agricultural setting of the property when determining compatible sites.</p> <p>The final feasibility study must be completed prior to issuance of any permits issued to a project applicant for development of the site, and a good faith effort to comply with the feasible alternatives must be demonstrated by the project applicant and confirmed by the City, prior to demolition of the Peterson Farmhouse. If the study indicates that relocation is infeasible, the City or applicant must complete Mitigation Measures CUL-3 and CUL-4.</p> <p>MM CUL-3: Conduct Level II Historic American Buildings Survey/Historic American Landscapes Survey Documentation. (If applicable - see Mitigation Measure CUL-1)</p> <p>Where the setting or portions of the Peterson Farmhouse require substantial alteration that results in adverse change due to a project that is approved under the Proposed Plan,</p>	Significant and unavoidable	Significant and unavoidable with mitigation

Table ES-2: Summary of Impacts and Mitigation Measures			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
	<p>and where relocation is infeasible (see Mitigation Measure CUL-1), the applicant, in consultation with the City, shall oversee Level II Historic American Buildings Survey/Historic American Landscapes Survey (HABS/HALS) documentation of the property, including a written narrative, measured drawings, and digital or film photographs.</p> <p>The documentation will be completed by experienced professionals who meet the Secretary of the Interiors Standards. The documentation package must include representation and characterization of the agricultural setting in which the historic property is situated; the survey boundary may be determined in consultation with the property owners, the City, the applicant, and the qualified documentation team. The City shall maintain a copy of the final documentation on file and make a good faith effort to identify two or more additional repositories that will accept printed and digital copies of the final documentation package, including but not limited to the Union City Historical Museum, the Union City Public Library, the Mission Peak Heritage Foundation, and the California State Archives.</p> <p>Field survey and data collection must be completed, and draft documentation reviewed and approved by the City prior to issuance of any demolition permits for the project.</p> <p>MM CUL-4: Complete On-site, Permanent Signage or Other Appropriate Media.</p> <p>Where demolition, substantial alteration, or a change in setting at the Peterson Farmhouse is required due to a project that is approved under the Proposed Plan, the City shall oversee the completion of on-site, permanent signage</p>		

Table ES-2: Summary of Impacts and Mitigation Measures			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
	<p>or other appropriate media that interprets the significant history of the property.</p> <p>An interpretive plan that details the interpretive materials, including format, location, and draft text and images to be used, must be completed prior to issuance of any demolition permits for the project. The on-site interpretive material must be publicly assessable and installed prior to completion of the project.</p> <p>Implementation of MM CUL-2 through MM CUL-4 would partially compensate for the impact associated with demolition of the resource through relocation or documentation and interpretation; however, because these measures would not be enough to avoid or reduce the impact, the demolition of the Peterson Farmhouse would remain a significant and unavoidable impact, even with incorporation of these mitigation measures.</p>		
<p>3.4-2 Implementation of the Proposed Plan could cause an adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5, but this impact is reduced through the implementation of Mitigation Measures CUL-5 through CUL-7.</p>	<p>MM CUL-5: Halt Work if Cultural Resources are Encountered and Evaluate Resource.</p> <p>Developers of projects in the Planning Area shall halt all work if cultural resources are encountered during excavation or construction of a project, and retain a qualified archaeologist to evaluate and make recommendations for conservation and mitigation. All such recommendations shall be 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.</p> <p>MM CUL-6: Inadvertent Discovery Protocol.</p> <p>In the event an archaeological resource is encountered during excavation or construction activities for projects within the Planning Area, the construction contractor shall</p>	Potentially significant	Less than significant with mitigation incorporated

Table ES-2: Summary of Impacts and Mitigation Measures			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
	<p>halt construction within 50 feet of the find and immediately notify the City. Construction activities shall be redirected and the project proponent shall, in consultation with the City, retain a qualified professional archaeologist to 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 (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>MM CUL-7: Conduct Cultural Resources Awareness Training.</p> <p>Prior to the start of any ground disturbance or construction activities, developers of projects in the Planning Area shall retain a qualified professional archaeologist to conduct cultural resource awareness training for construction personnel. This training shall include an overview of what cultural resource are and why</p>		

Table ES-2: Summary of Impacts and Mitigation Measures				
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>	
	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.			
3.4-3	Implementation of the Proposed Plan could have the potential to disturb human remains, including those interred outside of formal cemeteries, but this impact is reduced through the implementation of Mitigation Measures CUL-5 through CUL-7.	MM CUL-5 through CUL-7	Potentially significant	Less than significant with mitigation incorporated
3.4-4	Implementation of the Proposed Plan could cause an adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either 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: (a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC Section 5020.1(k), or (b) A resource determined by the lead agency, in its discretion and	MM CUL-5 through CUL-7	Potentially significant	Less than significant with mitigation incorporated

Table ES-2: Summary of Impacts and Mitigation Measures			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
<p>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.</p> <p>However, this impact is reduced through the implementation of Mitigation Measures CUL-5 through CUL-7.</p>			
<p>In combination with other past, present, and reasonably foreseeable projects, the Proposed Plan would not result in a significant cumulative impacts related to historic resources, archaeological resources, disturbance of human remains, or tribal cultural resources.</p>	None required	Less than significant	Not applicable
3.5 Energy, Climate Change, and Greenhouse Gas Emissions			
<p>3.5-1 Development under the Proposed Plan would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.</p> <p>The Proposed Plan would result in a net increase of 113,482 MTCO₂e</p>	<p>MM GHG-1: Require Implementation of BAAQMD-recommended BMPs.</p> <p>All applicants within the Planning Area shall require their contractors, as a condition of contract, 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):</p>	Significant and unavoidable	Significant and unavoidable

Table ES-2: Summary of Impacts and Mitigation Measures			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
<p>annually at full buildout in 2040. GHG emissions from mobile sources would conflict with goals of SB 743; therefore, the Proposed Plan would have a significant and unavoidable impact.</p> <p>By nature, energy and greenhouse gas emissions impacts are cumulative because the effects specific to the Proposed Plan cannot be reasonably differentiated from the broader effects of regional growth and development.</p>	<ul style="list-style-type: none"> • 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). <p>The City shall implement all policies identified in the Land Use and Mobility chapters of the Proposed Plan to reduce the demand for automobile travel within and through the Planning Area, as well as work with local and regional agencies to implement regional transportation improvements. Although the implementation of these strategies can be expected to reduce the total VMT per service population generated by typical uses in the Planning Area and reduce the magnitude of the impact, their effectiveness cannot be accurately estimated for the expected developments in the Planning Area, because the detailed characteristics of these future development and/or the specific strategies implemented by these future developments cannot be known at this time. Because the Proposed Plan’s VMT reduction would not achieve the 14.3 percent reduction target, the Proposed Plan’s GHG emissions from mobile sources would conflict with the goals of SB 743 and CARB’s long-term climate change planning goals; therefore, the Proposed Plan would have a significant and unavoidable impact.</p>		
<p>3.5-2 Development under the Proposed Plan would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.</p> <p><i>Construction</i></p>	<p>MM AQ-3 and MM GHG-1</p> <p>Implementation of Mitigation Measure GHG-1 would require future development projects to implement BAAQMD-recommended BMPs which would reduce the level of GHGs associated with construction of the future projects and avoid any conflict with statewide GHG reduction goals, thereby reducing this impact to less than significant with mitigation. However, emissions from area</p>	<p>Construction: Significant</p> <p>Operations: Significant and Unavoidable</p>	<p>Construction: Less than significant with mitigation incorporated</p> <p>Operations: Significant and unavoidable</p>

Table ES-2: Summary of Impacts and Mitigation Measures

<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
<p>In lieu of a quantitative threshold for assessing construction-related GHG emissions, BAAQMD recommends evaluating whether construction activities would conflict with statewide emission reduction goals, based on whether feasible BMPs for reducing GHG emissions would be implemented. If a project fails to implement feasible BMPs identified by BAAQMD, its GHG emissions could conflict with statewide emission goals and represent a cumulatively considerable contribution to climate change, which would be a potentially significant impact.</p> <p><i>Operations</i></p> <p>Because a reduction in GHG emissions from passenger vehicles is one of the objectives of SB 743 and one of the overarching strategies of the 2017 Scoping Plan, operation of the Proposed Project would conflict with the statewide GHG target for 2030 mandated by SB 32. GHG emissions from mobile sources would conflict with goals of SB 743, therefore, the Proposed Plan would have a significant and unavoidable impact. By nature, energy and greenhouse gas emissions impacts are</p>	<p>and energy sources may continue to conflict with the 2017 Scoping Plan since future development in the Proposed Plan's future development would continue to use natural gas for building heating and cooking, appliances, and fireplaces, and gasoline or other fossil fuels in landscaping equipment prior to and beyond 2030. Additionally, GHG emissions from mobile sources would conflict with goals of SB 743. Overall, the Proposed Plan would be consistent with policies and plans that encourage energy conservation, energy efficiency, and sustainability, but emissions from natural gas use and mobile sources could result in plan conflicts. Therefore, the Proposed Plan would result in a significant and unavoidable impact related to GHG plan/policy consistency.</p>		

Table ES-2: Summary of Impacts and Mitigation Measures			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
cumulative because the effects specific to the Proposed Plan cannot be reasonably differentiated from the broader effects of regional growth and development.			
3.5-3 Implementation of the Proposed Plan would not cause wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation.	None required	Less than significant	Not applicable
3.5-4 Implementation of the Proposed Plan would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency.	None required	Less than significant	Not applicable
In combination with other past, present, and reasonably foreseeable projects, the Proposed Plan would not result in a significant cumulative impacts related to wasteful energy consumption, or conflict with adopted plans for renewable energy or energy efficiency.	None required	Less than significant	Not applicable
3.6 Geology, Soils, and Seismicity			
3.6-1 Implementation of the Proposed Plan would not expose residents, visitors and employees, as well as public and private structures, to	None required	Less than significant	Not applicable

Table ES-2: Summary of Impacts and Mitigation Measures			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault; strong seismic ground shaking; seismically related ground failure, including liquefaction; or landslides.			
3.6-2 Implementation of the Proposed Plan would not result in substantial soil erosion or the loss of topsoil.	None required	Less than significant	Not applicable
3.6-3 Implementation of the Proposed Plan would not locate structures on expansive soils or on a geologic unit or soil that is unstable, or that would become unstable as a result of new development under the Proposed Plan, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse, or create substantial risks to life or property.	None required	Less than significant	Not applicable
3.6-4 Implementation of the Proposed Plan would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. This impact is reduced through the implementation of Mitigation Measures GEO-1 and GEO-2.	MM GEO-1: Worker Awareness Training. Prior to commencing construction, and ongoing throughout ground-disturbing activities (e.g., excavation, utility installation, the applicants proposing development of projects within the Planning Area and/or their designee shall ensure that all project construction workers are trained on the contents of a paleontological resources alert sheet, as provided by the department. The paleontological resources alert sheet shall be prominently displayed at the construction site during ground-disturbing activities for	Potentially significant	Less than significant with mitigation

Table ES-2: Summary of Impacts and Mitigation Measures			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
<p>It is likely that significant paleontological resources in these geologic units have been and could in future be destroyed by development. Therefore, a cumulative impact on paleontological resources in the geographic context exists.</p>	<p>reference regarding potential paleontological resources. In addition, the project applicant shall inform the contractor and construction personnel of the immediate stop work procedures and other procedures to be followed if bones or other potential fossils are unearthed at the project site. Should new workers that will be involved in ground-disturbing construction activities begin employment after the initial training has occurred, the construction supervisor shall ensure that they receive the worker awareness training as described above.</p> <p>The applicant shall complete a standard form/affidavit confirming the timing of the worker awareness training to the City. The affidavit shall confirm the project's location, the date of training, the location of the informational handout display, and the number of participants. The affidavit shall be transmitted to the City within five business days of conducting the training.</p> <p>MM GEO-2: Halt Construction Activity in Case of Finding Paleontological Resources, Evaluate Find, and Excavate Find.</p> <p>In the event that previously unidentified paleontological resources are uncovered during site preparation, excavation, or other construction activity, applicants proposing development of projects within the Planning Area shall cease all such activity within 25 feet of the discovery or ensure that all such activity within 25 feet of the discovery ceases until the resources have been evaluated by a qualified professional 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. If the qualified paleontologist determines the find is potentially significant, the project applicant shall ensure a qualified paleontologist</p>		

Table ES-2: Summary of Impacts and Mitigation Measures			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
	shall excavate the find in compliance with state law, document the find, and arrange for curation at a depository, keeping project delays to a minimum. If the qualified paleontologist determines the find is not significant, then the project will continue without delay.		
In combination with other past, present, and reasonably foreseeable projects, the Proposed Plan would not result in a significant cumulative impacts related to exposure to seismic hazards, soil erosion, or location of structures on unstable soils.	None required	Less than significant	Not applicable
3.7 Hazards and Hazardous Materials			
3.7-1 Implementation of the Proposed Plan would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	None required	Less than significant	Not applicable
3.7-2 Implementation of the Proposed Plan 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, but this impact is reduced through the implementation of Mitigation Measure HAZ-1.	MM HAZ-1: Project-Level Hazardous Materials Assessment for Construction. The City shall require that applicants proposing development of projects involving ground disturbance within the Planning Area, and where the environmental status of a project site is unknown to the applicant, shall either retain a professional hazardous materials specialist specializing in hazardous materials impact assessment or themselves conduct a project-level environmental database screening to verify the presence or absence of hazardous materials conditions (including Cortese List sites) on the	Potentially significant	Less than significant with mitigation

Table ES-2: Summary of Impacts and Mitigation Measures			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
	<p>project site or immediately adjacent to the project site. The environmental database screening will consist of a search for environment-related information present in publicly accessible online databases such as the SWRCB's Geotracker, Department of Toxic Substances Control's Envirostor and CalEPA's Cortese List Data Resources. The results of the environmental database screening will be reviewed to determine if the project site or immediately adjacent properties are listed in the aforementioned databases to assess if there is potential for existing hazardous materials conditions to affect construction activities. If neither the project site or immediately adjacent properties are listed in the aforementioned databases or if they are listed in a database but do not have an <i>active</i> hazardous materials release, then no further action is required.</p> <p>If the project site or immediately adjacent properties are listed in the aforementioned databases with an <i>active</i> hazardous materials release, the applicant shall retain a professional hazardous materials specialist to determine the potential risk to construction workers, the public, or the environment from construction activities. The determination of risk will consider, among other factors, regulatory status, the type of project, type of contaminated property, distance and direction to the project, and appropriate measures. If the professional hazardous materials specialist concludes that the project will not 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, then no further action is required.</p> <p>If the professional hazardous materials specialist concludes that the project will create a significant hazard to the public</p>		

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<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
	<p>or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment, the implementing agency will determine the applicability of General Plan Policy S-7.3 (discussed under <i>Regulatory Setting</i>) and implement measures to reduce exposure risk including one or more of the following:</p> <ul style="list-style-type: none"> • Implementation of engineering controls and Best Management Practices (BMPs) during construction to minimize human exposure to potentially contaminated soils during construction. Engineering controls and construction BMPs could include, but are not limited to, the following: <ul style="list-style-type: none"> ○ Contractor employees working onsite handling potentially contaminated media will be certified in the Occupational Health and Safety Administration’s 40-hour Hazardous Waste Operations and Emergency Response training. ○ Contractors will water or mist soil as it is being excavated and stockpiled or loaded onto transportation trucks. ○ Contractors will place any stockpiled soil in areas shielded from prevailing winds or cover stockpiles with staked and/or anchored sheeting. • Conducting a soil and/or groundwater sampling program to determine the type and extent of contaminants. The sampling program could include: <ul style="list-style-type: none"> ○ A scope of work for preparation of a Health and Safety Plan that specifies pre-field activity marking of boring locations and 		

Table ES-2: Summary of Impacts and Mitigation Measures			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
	<p>obtaining utility clearance, and field activities, such as identifying appropriate sampling procedures, health and safety measures, chemical testing methods, and quality assurance /quality control procedures</p> <ul style="list-style-type: none"> ○ Necessary permits for well installation and/or boring advancement (as necessary) ○ A Soil Sampling and Analysis Plan in accordance with the scope of work ○ Laboratory analyses conducted by a state-certified laboratory ○ Disposal processes, including transport by a state-certified hazardous material hauler to a state-certified disposal or recycling facility licensed to accept and treat hazardous waste <ul style="list-style-type: none"> • Implementation of a Soil Management Plan. The purpose of a Soil Management Plan is to provide administrative, procedural, and analytical guidance to expedite and clarify decisions and actions if contaminated soils are encountered. Typically, procedures and protocols are included to ensure that contaminated soil is excavated properly and efficiently, and that unacceptable risks are not posed to human health or the environment from contaminated soils. Additionally, the Soil Management Plan would contain procedures for handling, stockpiling, screening, and disposing of the excavated soil. The Soil Management Plan is a site-specific technical plan that could be required depending on other screening activities conducted (listed above) and is not included as part of this 		

Table ES-2: Summary of Impacts and Mitigation Measures				
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>	
	<p>EIR. Appropriate agencies will review the Soil Management Plan.</p> <ul style="list-style-type: none"> • If dewatering would be necessary in areas where contaminated groundwater exists, then dewatering procedures could be subject to permit requirements of the NPDES and other requirements. Wastewater would require proper profile sampling prior to disposal. • Any structures built prior to 1980 (the use of asbestos in buildings and structures was common prior to 1980) and planned for demolition as part of subsequent projects would require an asbestos and lead-based paint survey. An asbestos survey would be conducted in accordance with the Bay Area Air Quality Management District requirements, Cal OSHA (CCR, Title 8, Section 1529), and the National Emission Standards for Hazardous Air Pollutants for Asbestos Surveys (40 CFR Part 61, Subpart M). CCR, Title 8, Section 1532.1, "Lead," and Cal OSHA requirements should be followed when handling materials containing lead. 			
3.7-3	<p>Implementation of the Proposed Plan would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.</p>	None required	Less than significant	Not applicable
3.7-4	<p>Implementation of the Proposed Plan could result in development located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.</p>	MM HAZ-1: Project-Level Hazardous Materials Assessment for Construction. (See above)	Potentially significant	Less than significant with mitigation

Table ES-2: Summary of Impacts and Mitigation Measures			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
and, as a result, would create a significant hazard to the public or the environment, but this impact is reduced through the implementation of Mitigation Measure HAZ-1.			
3.7-5 Implementation of the Proposed Plan would not result in development located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public uses airport, and would result in a safety hazard or excessive noise for people residing or working in the Planning Area.	None required	No impact	Not applicable
3.7-6 Implementation of the Proposed Plan would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	None required	Less than significant	Not applicable
3.7-7 Implementation of the Proposed Plan would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.	None required	No impact	Not applicable
In combination with other past, present, and reasonably foreseeable projects, the Proposed Plan would not result in a	None required	Less than significant	Not applicable

Table ES-2: Summary of Impacts and Mitigation Measures			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
significant cumulative impacts related to transport of hazardous materials, accidental release of hazardous materials into the environment, emission of hazardous materials near a school, development on a known hazardous site, airport hazards, adopted emergency response plans, or exposure to significant risk due to wildfires.			
3.8 Hydrology and Water Quality			
3.8-1 Implementation of the Proposed Plan would not violate any federal, state, or local water quality standards or waste discharge requirements.	None required	Less than significant	Not applicable
3.8-2 Implementation of the Proposed Plan would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.	None required	Less than significant	Not applicable
3.8-3 Implementation of the Proposed Plan would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces in	None required	Less than significant	Not applicable

Table ES-2: Summary of Impacts and Mitigation Measures			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
a manner which would result in substantial erosion, siltation, or flooding on- or off-site; substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or impede or redirect flood flows.			
3.8-4 Implementation of the Proposed Plan would not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam, or inundation by seiche, tsunami, or mudflow.	None required	Less than significant	Not applicable
3.8-5 Implementation of the Proposed Plan would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	None required	Less than significant	Not applicable
In combination with other past, present, and reasonably foreseeable projects, the Proposed Plan would not result in a	None required	Less than significant	Not applicable

Table ES-2: Summary of Impacts and Mitigation Measures			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
significant cumulative impacts related to federal, state, or local water quality standards; depletion of groundwater; alteration of natural drainage or impediment of flood flows; exposure to flood risk; or conflict with adopted water quality or sustainable groundwater management plans.			
3.9 Land Use, Population, and Housing			
3.9-1 Development under the Proposed Plan would not physically divide an established community.	None required	No impact	Not applicable
3.9-2 Development under the Proposed Plan 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	No impact	Not applicable
3.9-3 Development under the Proposed Plan would not 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).	None required	Less than significant	Not applicable
3.9-4 Development under the Proposed Plan would not displace substantial numbers of existing people or	None required	Less than significant	Not applicable

Table ES-2: Summary of Impacts and Mitigation Measures			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
housing, necessitating the construction of replacement housing elsewhere.			
In combination with other past, present, and reasonably foreseeable projects, the Proposed Plan would not result in a significant cumulative impacts related to division of an established community, conflict with an adopted land use plans, unplanned population growth, or displacement that necessitates construction of replacement housing.	None required	Less than significant	Not applicable
3.10 Noise and Vibration			
<p>3.10-1 Implementation of the Proposed Plan could 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.</p> <p><i>Construction</i></p> <p>Construction of mixed-use, high-density development and redevelopment within the Planning Area could potentially expose</p>	<p>MM N-1: Construction Noise Reduction.</p> <p>For projects involving impact pile-drivers that are located within 400 feet of noise-sensitive receptors, projects involving sonic piledrivers that are located within 200 feet of construction, and projects without pile-driving that are located within 175 feet from noise-sensitive receptors, the following mitigation would be required:</p> <ul style="list-style-type: none"> • Equipment Staging Areas. Equipment staging shall be located in areas that will create the greatest distance feasible between construction-related noise sources and noise-sensitive receptors. • Electrically-Powered Tools and Facilities. Electrical power shall be used to run air compressors and similar 	<p>Construction: Significant</p> <p>On-Site Operational: Less than significant</p> <p>Railroad: Less than significant</p> <p>Traffic: Less than significant</p>	<p>Construction: Less than significant with mitigation</p> <p>On-Site Operational: Less than significant</p> <p>Railroad: Less than significant</p> <p>Traffic: Less than significant</p>

Table ES-2: Summary of Impacts and Mitigation Measures				
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>	
<p>existing sensitive noise receptors to high levels of sustained construction noise, including from construction-related traffic, demolition, and reconstruction activities. Implementation of policies and regulations in UC 2040 and the Union City Municipal Code would reduce noise levels associated with most types of equipment to a level consistent with the Municipal Code standard; however, even after implementation of the policies and regulations discussed above, the use of impact and sonic pile drivers within 25 feet of existing home could result in noise levels of up to 92 dBA, which is in excess of the Municipal Code standard of 83 dBA. This impact would be reduced with implementation of Mitigation Measure N-1.</p>	<p>power tools and to power any temporary structures, such as construction trailers or caretaker facilities.</p> <ul style="list-style-type: none"> • Smart Back-up Alarms. Mobile construction equipment shall have smart back-up alarms that automatically adjust the sound level of the alarm in response to ambient noise levels. Alternatively, back-up alarms shall be disabled and replaced with human spotters to ensure safety when mobile construction equipment is moving in the reverse direction. • Additional Noise Attenuation Techniques. During the clearing, earth moving, grading, and foundation/conditioning phases of construction, temporary sound barriers shall be installed and maintained between the construction site and the sensitive receptors. Temporary sound barriers shall consist of sound blankets affixed to construction fencing or temporary solid walls along all sides of the construction site boundary facing potentially sensitive receptors. 			
3.10-2	Development under the Proposed Plan would not generate excessive groundborne vibration or groundborne noise levels.	None required	Less than significant	Not applicable
3.10-3	The Proposed Plan would not be located within the vicinity of a private airstrip or an airport land use plan or expose people residing	None required	No impact	Not applicable

Table ES-2: Summary of Impacts and Mitigation Measures			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
or working in the Planning Area to excessive noise levels.			
In combination with other past, present, and reasonably foreseeable projects, the Proposed Plan would not result in a significant cumulative impacts related to ambient noise levels, groundborne vibration or groundborne noise levels, or airport noise.	None required	Less than significant	Not applicable
3.11 Public Services and Recreation			
3.11-1 Development under the Proposed Plan would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, 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 public services: fire protection, police protection, schools, parks, or other public facilities.	None required	Less than significant	Not applicable
3.11-2 Development under the Proposed Plan would not increase the use of existing neighborhood and	None required	Less than significant	Not applicable

Table ES-2: Summary of Impacts and Mitigation Measures			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.			
3.11-3 Development under the Proposed Plan would not require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.	None required	Less than significant	Not applicable
In combination with other past, present, and reasonably foreseeable projects, the Proposed Plan would not result in a significant cumulative impacts related to environmental impacts related to provision of new governmental facilities, deterioration of existing recreational facilities and parks, or environmental impacts related to the construction of new recreational facilities.	None required	Less than significant	Not applicable
3.12 Transportation			
3.12-1 Implementation of the Proposed Plan would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, and bicycle and pedestrian facilities.	None required	Less than significant	Not applicable

Table ES-2: Summary of Impacts and Mitigation Measures			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
<p>3.12-2 Implementation of the Proposed Plan would conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).</p> <p>CEQA Guidelines Section 15064.3 requires that the determination of significance for transportation impacts be based on VMT instead of a congestion metric such as LOS. The change in the focus of transportation analysis is the result of SB 743. OPR's Technical Advisory provides recommendations for implementing Section 15064.3 of the CEQA Guidelines related to VMT. OPR recommends that if a project does not achieve a level of 15 percent or more below regional or citywide VMT, it may indicate a significant transportation impact. Though the Proposed Plan would reduce VMT levels of Household VMT per Capita and the Commute VMT per Worker to below OPR's recommended thresholds of significance, implementation of the Proposed Plan would increase the total VMT per service population, therefore representing a significant impact.</p>	<p>Myriad goals and policies in the Proposed Plan are designed to reduce VMT in the Planning Area through multi-modal transportation improvements, higher-density and mixed-use development, and trip reduction measures. While the VMT reduction measures embedded in the proposed goals and policies would substantially reduce household VMT and home-work VMT over baseline conditions, even with implementation of these VMT reduction measures, the total VMT per service population in the Planning Area would not achieve the required 15 percent reduction as recommended by the OPR Technical Advisory. There are no other feasible mitigation measures available because the Proposed Plan emphasizes development designed to reduce VMT and contains goals and policies aimed at minimizing VMT. Impacts would be significant and unavoidable.</p>	<p>Significant and unavoidable</p>	<p>Significant and unavoidable</p>

Table ES-2: Summary of Impacts and Mitigation Measures			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
This impact is cumulative by nature because the effects specific to the Proposed Plan cannot be reasonably differentiated from the broader effects of regional growth and development.			
3.12-3 Implementation of the Proposed Plan 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	Less than significant	Not applicable
3.12-4 Implementation of the Proposed Plan would not result in inadequate emergency access.	None required	Less than significant	Not applicable
In combination with other past, present, and reasonably foreseeable projects, the Proposed Plan would not result in a significant cumulative impacts related to conflict with adopted transportation plans, hazards related to roadway design features, or emergency access.	None required	Less than significant	Not applicable
3.13 Utilities and Service Systems			
3.13-1 Development under the Proposed Plan would not require or result in the relocation or construction of new or expanded water, or wastewater treatment or storm	None required	Less than significant	Not applicable

Table ES-2: Summary of Impacts and Mitigation Measures			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.			
3.13-2 Development under the Proposed Plan would have sufficient water supplies available to serve the Planning Area and reasonably foreseeable future development during normal, dry and multiple dry years, provided that new development is required to adhere to ACWD's Water Efficiency Measures for New Developments (Mitigation Measure UTIL-1).	MM UTIL-1: Water Efficiency Measures for New Developments. New residential and commercial development in the Planning Area shall be designed to incorporate the Alameda County Water District's Water Efficiency Measures for New Development, as applicable, in order to ensure compliance with federal and State requirements for water efficiency.	Potentially significant	Less than significant
3.13-3 Development under the Proposed Plan would not result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.	None required	Less than significant	Not applicable
3.13-4 Development under the Proposed Plan 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.	None required	Less than significant	Not applicable

Table ES-2: Summary of Impacts and Mitigation Measures			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
3.13-5 Development under the Proposed Plan would not conflict with federal, state, and local management and reduction statutes and regulations related to solid waste.	None required	Less than significant	Not applicable
In combination with other past, present, and reasonably foreseeable projects, the Proposed Plan would not result in a significant cumulative impacts related to relocation or construction of new utilities, water supply, wastewater treatment capacity, generation of solid waste, or conflict with adopted plans related to local waste.	None required	Less than significant	Not applicable
3.14 Agricultural Resources			
3.14-1 Development under the Proposed Plan 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	No impact	Not applicable
3.14-2 Development under the Proposed Plan would not conflict with	None required	No impact	Not applicable

Table ES-2: Summary of Impacts and Mitigation Measures			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
existing zoning for agricultural use, or a Williamson Act contract.			
3.14-3 Development under the Proposed Plan would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use.	None required	Less than significant	Not applicable
In combination with other past, present, and reasonably foreseeable projects, the Proposed Plan would not result in a significant cumulative impacts related to conversion of prime farmland to non-agricultural use, conflict with Williamson Act contracts or land zoned for agricultural use, or conversion of farmland to non-agricultural use due to environmental changes.	None required	Less than significant	Not applicable

I Introduction

This Draft Environmental Impact Report (EIR) has been prepared on behalf of the City of Union City in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 *et seq.*). The EIR analyzes potential environmental impacts of the adoption and implementation of the proposed Union City Station District Specific Plan (SDSP), referred to as the “Proposed Plan.” This chapter outlines the purpose and overall approach to the preparation of the EIR. The City of Union City is the lead agency responsible for ensuring that the Proposed Plan complies with CEQA. “Lead agency” is defined by Section 21067 of CEQA as “the public agency which has the principal responsibility for carrying out or approving a project which may have a significant effect upon the environment.”

I.1 Purpose of the EIR

The primary intent of CEQA is to ensure that public agency decision-makers document and consider the environmental implications of their actions in order to avoid or minimize environmental damage that could result from the implementation of a project wherever feasible, and to balance environmental, economic, and social objectives. The purpose of an EIR is to identify the significant effects on the environment of a project, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided (California Public Resources Code [PRC] Section 21002.1).

PURPOSE

This EIR serves the following purposes:

- To satisfy CEQA requirements for analysis of environmental impacts by including a complete and comprehensive programmatic evaluation of the physical impacts of adopting and implementing the Proposed Plan;
- To recommend a set of measures to mitigate any significant adverse impacts;
- To analyze a range of reasonable alternatives to the Proposed Plan;
- To inform decision-makers and the public of the potential environmental impacts of the Proposed Plan prior to taking action on the Proposed Plan, and to assist City officials in reviewing and adopting the Proposed Plan; and

- To provide a basis for the review of subsequent development projects and public improvements proposed within the planning area. Subsequent environmental documents may be tiered from the Final EIR.

The Proposed Plan consists of policies, diagrams, and standards to guide the future development of the planning area, as described in Chapter 2: Project Description. This EIR contains analysis of all potential environmental impacts expected to result from implementation of the various policies and programs identified as part of the Proposed Plan, including those that serve to avoid or minimize adverse environmental impacts. In accordance with CEQA requirements, this EIR also identifies and evaluates alternatives to the Proposed Plan, including the No Project Alternative, which represents the continued implementation of the existing General Plan and Decoto Industrial Park Study Area (DIPSA) Specific Plan. An environmentally superior alternative is identified as part of the Alternatives analysis.

This EIR evaluates at a programmatic level the potential environmental impacts of the Proposed Plan given its 2040 planning horizon. It can be anticipated that conditions will change; however, the assumptions used are the best data and information available at the time of preparation and reflect existing knowledge of patterns of development.

INTENDED USES OF THE EIR

The CEQA Guidelines (Section 15124(d)) require EIRs to identify the agencies that are expected to use the EIR in their decision-making, and the approvals for which the EIR will be used. This EIR will inform the City of Union City, in addition to other responsible agencies, persons, and the general public, of the potential environmental effects of the Proposed Plan and the identified alternatives. The City of Union City will use the EIR as part of its review and approval of the Proposed Plan. Other agencies that may use the EIR include Bay Area Rapid Transit (BART), Altamont Corridor Express (ACE), Dumbarton Express, Alameda County (AC) Transit, Union City (UC) Transit, and Amtrak, which operate transit service through the Planning Area via the Union City Intermodal Station; local and regional agencies such as Alameda County Flood Control & Water Conservation District, the New Haven Unified School District, the Alameda County Water District, Union Sanitary District (USD), San Francisco Regional Water Quality Control Board, and the Association of Bay Area Governments (ABAG); and State agencies such as the California Department of Transportation (Caltrans).

1.2 Approach and Scope of the EIR

TYPE OF EIR

This EIR is a program EIR, defined in Section 15168 of the CEQA Guidelines as: “[An EIR addressing a] series of actions that can be characterized as one large project and are related either: (1) Geographically; (2) A[s] logical parts in the chain of contemplated actions; (3) In connection with the issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program; or (4) As individual activities carried out under the same authorizing statutory

or regulatory authority and having generally similar environmental impacts which can be mitigated in similar ways.”

Program EIRs can be used as the basic, general environmental assessment for an overall program of future projects, policies, and related implementation actions, such as the Proposed Plan. A program EIR has several advantages. First, it provides a basic reference document to avoid unnecessary repetition of facts or analysis in subsequent project-specific assessments. Second, it allows the lead agency to look at the broad, regional impacts of a program of actions before its adoption, and eliminates redundant or contradictory approaches to the consideration of regional and cumulative effects.

As a programmatic document, this EIR presents an assessment of the potential impacts of the Proposed Plan on the entirety of the 471-acre Planning Area, shown on Figure 2.1-2. It does not separately evaluate subcomponents of the Proposed Plan nor does it assess project-specific impacts of potential future projects under the Proposed Plan, all of which are required to comply with CEQA and/or the National Environmental Policy Act (NEPA) as applicable.

As a program EIR, the preparation of this document does not relieve the sponsors of specific projects from the responsibility of complying with the requirements of CEQA (and/or NEPA for projects requiring federal funding or approvals). As noted, individual projects are required to prepare a more precise, project-level analysis to fulfill CEQA and/or NEPA requirements. The lead agency responsible for reviewing these projects shall determine the level of review needed, and the scope of that analysis will depend on the specifics of the particular project. These projects may, however, use the discussion of impacts in this EIR as a basis of their assessment of these regional, citywide, or cumulative impacts, provided that the projects are consistent with the Proposed Plan and the data and assumptions used in this EIR remain current and valid.

ENVIRONMENTAL ISSUE AREAS

Information gathered about the environmental setting is used to define relevant planning issues, determine thresholds of significance, and evaluate potential impacts. Based on the initial analysis of environmental setting and baseline conditions, and comments on the Notice of Preparation (NOP), the following issues are analyzed in this program EIR:

- Aesthetics and Visual Resources
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural, Tribal, and Historic Resources
- Energy, Climate Change, and Greenhouse Gas Emissions
- Geology, Soils, and Seismicity
- Hazards and Hazardous Materials
- Hydrology, Drainage, and Water Quality

- Land Use
- Population, and Housing
- Noise and Vibration
- Public Services
- Recreation
- Transportation
- Utilities and Service Systems

Issues not analyzed in detail in this EIR include forestry, mineral resources, and wildfire, due to the lack of presence of these resources in the Planning Area. For issue areas where possible significant effects were determined not to be significant and therefore not discussed in detail, the CEQA Guidelines require a statement indicating the reasons for such determination (California Code of Regulations [CCR] Section 15182). This statement is included in the Effects Found Not to be Significant section of this EIR.

PLANNING HORIZON

For analytic purposes in this EIR, the base year is 2020 unless otherwise noted, and the horizon year representing future conditions is 2040. In cases where current data is not available, the most recent known data is used to depict baseline conditions. The horizon year of 2040 represents the target year of the Proposed Plan when projects and programs are anticipated to be fully implemented. In reality, full implementation of the Proposed Plan may take more or less than 20 years.

ALTERNATIVES

CEQA requires EIRs to evaluate a reasonable range of alternatives to the Proposed Plan that could feasibly attain most of the basic project objectives and would avoid or substantially lessen any of the significant environmental impacts. This EIR evaluates three alternatives, including a Reconfigured Site Plan Alternative, a Reduced Development Alternative, and the No Project Alternative, which represents the continuation of the City's existing General Plan.

1.3 Planning Process and Public Involvement

NOTICE OF PREPARATION AND PUBLIC PARTICIPATION

An NOP for the EIR on the Proposed Plan was submitted to the State Clearinghouse on January 26, 2021 and circulated among relevant State and local agencies, as well as to members of the public. The City received 91 individual comments, including five from public agencies and 73 written comment letters. 13 oral and written comments were received at a public scoping meeting during a 40-day review period, which ended March 6, 2021, and accepted written comments through March 10, 2021. The NOP and comments on the NOP received by the City are included as Appendix A of this EIR. Consistent with legal requirements and State guidance, an EIR Scoping

Meeting was held on February 11, 2021 via Zoom to receive comments and suggestions on scope and content for the EIR; solicit input on potential impacts, mitigation measures, and alternatives to consider; and consult with public agencies responsible for natural resources, other regulatory bodies, neighboring communities, Native American tribes, and members of the public. Comments on the NOP, along with input received during public workshops and meetings over the course of the SDSP process, have helped to identify the major planning and environmental issues and concerns and establish the framework of this EIR.

TRIBAL CONSULTATION (SB 18 AND AB 52)

Senate Bill (SB) 18, codified in California Government Code (CGC) Section 65352.3, requires local governments to consult with California Native American tribes identified by the Native American Heritage Commission (NAHC) for the purpose of protecting, and/or mitigating impacts to cultural places prior to the adoption or amendment of a specific plan. Additionally, Assembly Bill (AB) 52 requires tribal cultural resources to be addressed under CEQA and established requirements for consultation with Native American tribes as part of the CEQA process, providing both federal and non-federally recognized tribes the right to formal consultation with project lead agencies (California Public Resources Code [PRC] Section 21080.3.1). In accordance with SB 18 and AB 52, the City contacted the NAHC on February 23, 2021 to request a consultation list of tribes traditionally and culturally affiliated with the planning area. Upon receipt of a list of tribal contacts, the City contacted tribal representatives in June 2021, providing information about the planning process and inviting them to initiate consultation under AB 52 if desired. No responses were received from any of the individuals and tribal representatives and no Native American tribes shared knowledge of tribal cultural resources. Correspondence with the NAHC and tribal contacts is included in Appendix B. Additionally, the NOP was shared with the NAHC and in January 2021, the NAHC responded with recommendations for conducting cultural resources assessments.

The environmental setting in the Planning Area and the sites of known Native American archaeological resources in the Planning Area indicate that there is potential for the Planning Area to contain tribal cultural resources from past Native American activities.

DRAFT EIR REVIEW

The CEQA Guidelines establish that the public review period for a draft EIR shall be no shorter than 30 days and no longer than 60 days. The public review period for a draft EIR that has been submitted to the State Clearinghouse for review by State agencies shall be no shorter than 45 days (CCR 15105). This Draft EIR is available for review to the public and interested and affected agencies for a period of 45 days. The purpose of the review period is to obtain comments “on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided and mitigated” (CCR Section 15204). The EIR and appendices are available for review at the Union City Economic and Community Development Department at 34009 Alvarado-Niles Road, Union City, CA 94587 and online at www.unioncity.org/422/StationDistrictSP.

Please submit comments on this Draft EIR in writing or via email to:

Carmela Campbell, Economic and Community Development Director
City of Union City
Economic and Community Development Department, Planning Division
34009 Alvarado-Niles Road
Union City, CA 94587
stationdistrict@unioncity.org

After the close of the public review period, City staff and CEQA consultants will review the comments, respond to the comments received, and determine whether any changes are required to the EIR. The City Council will then consider certification of the Final EIR. Subsequent to certification of the Final EIR, the City Council may approve the Proposed Plan. If the City Council approves the Proposed Plan, a Notice of Determination will be filed with the State Office of Planning and Research and the Clerk of Alameda County.

1.4 Other Relevant Plans and Environmental Studies

A Priority Development Area (PDA) profile was published in May 2020 to provide baseline information on the existing conditions, opportunities, and challenges in the Planning Area. This report summarizes resources, trends, and critical concerns that will frame choices for the Planning Area's long-term physical development and as part of the planning process for the Proposed Plan. The PDA profile addressed Land Use and Development, Urban Design, Transportation, Environmental Quality, and Infrastructure. In some instances, the PDA profile analyses may contain information at a greater level of detail than this EIR; however, information in this EIR is more current. The PDA profile can be viewed online at: www.unioncity.org/423/Resources. Other plans and studies relevant to the Proposed Plan include the following:

- Union City 2040 General Plan and EIR (2019)
- Union City Station District Specific Plan Community Engagement Report (2020)
- Union City Station East Residential/Mixed Use Project EIR (2020)
- Union City Pedestrian and Bicycle Master Plan (2021)
- Union City Park and Recreation Master Plan (1999)
- Union City Climate Action Plan (2010)
- Union City Intermodal Station District and Transit Facility Plan (2002)
- Alameda County Transportation Commission East-West Connector Project EIR (2009)

1.5 Organization of the EIR

This Draft EIR is organized into the following chapters, plus appendices:

- ES. **Executive Summary.** Summarizes the EIR by providing an overview of the Proposed Plan, the potentially significant environmental impacts that could result from the Proposed Plan, the mitigation measures identified to reduce or avoid these impacts, alternatives to the Proposed Plan, and identification of the environmentally superior Alternative.
1. **Introduction.** Introduces the purpose of the EIR, explains the EIR process and intended uses of the EIR, and describes the overall organization of this EIR.
2. **Project Description.** Describes in detail the Proposed Plan, including its location and boundaries, purpose and objectives, and projected buildout.
3. **Environmental Analysis.** Analyzes the environmental impacts of the Proposed Plan. Impacts are organized by major topic. Each topic area includes a description of the environmental setting, significance criteria, methodology, and potential impacts.
4. **Analysis of Alternatives.** Presents a reasonable range of alternatives to the Proposed Plan, provides discussion of environmental impacts associated with each alternative, compares the relative impacts of each alternative to those of the Proposed Plan and other alternatives, discusses the relationship of each alternative to the Proposed Plan's objectives, and identifies the environmentally superior alternative.
5. **CEQA Required Conclusions.** Summarizes significant environmental impacts, including growth-inducing, cumulative, and significant and unavoidable impacts; significant irreversible environmental change; and impacts found not to be significant.
6. **List of Preparers.** Identifies the persons and organizations that contributed to the preparation of the EIR.
7. **Appendices.** Includes the NOP and compilation of agency and public comments received on the NOP, as well as other technical appendices including data used for environmental analysis in this EIR.

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2 Project Description

The project analyzed in this Environmental Impact Report (EIR) is the proposed Station District Specific Plan (Proposed Plan) in the City of Union City (City). The Proposed Plan is both a policy document and an implementation tool for implementing the City's General Plan. It contains strategies, policies, and standards to guide future development within the approximately 471-acre Planning Area around the Union City Intermodal Station. Implementation will include amendments to the City's 2040 General Plan (General Plan) and the Zoning Ordinance. The City is the Lead Agency for environmental review.

This chapter summarizes the key components of the Proposed Plan, including a description of its location and setting; an overview of the planning process and the Proposed Plan's relationship to other past and ongoing planning efforts; a description of the Proposed Plan's Objectives; a summary of the Proposed Plan's key components and planning strategies; a statement of project buildout and phasing assumptions; a summary of regulatory mechanisms anticipated to implement the Proposed Plan; and a description of intended uses of this EIR. A detailed analysis and context of specific CEQA topics including transportation, biological resources, and infrastructure can be found in Chapter 3 of this EIR and the EIR appendices.

2.1 Location and Setting

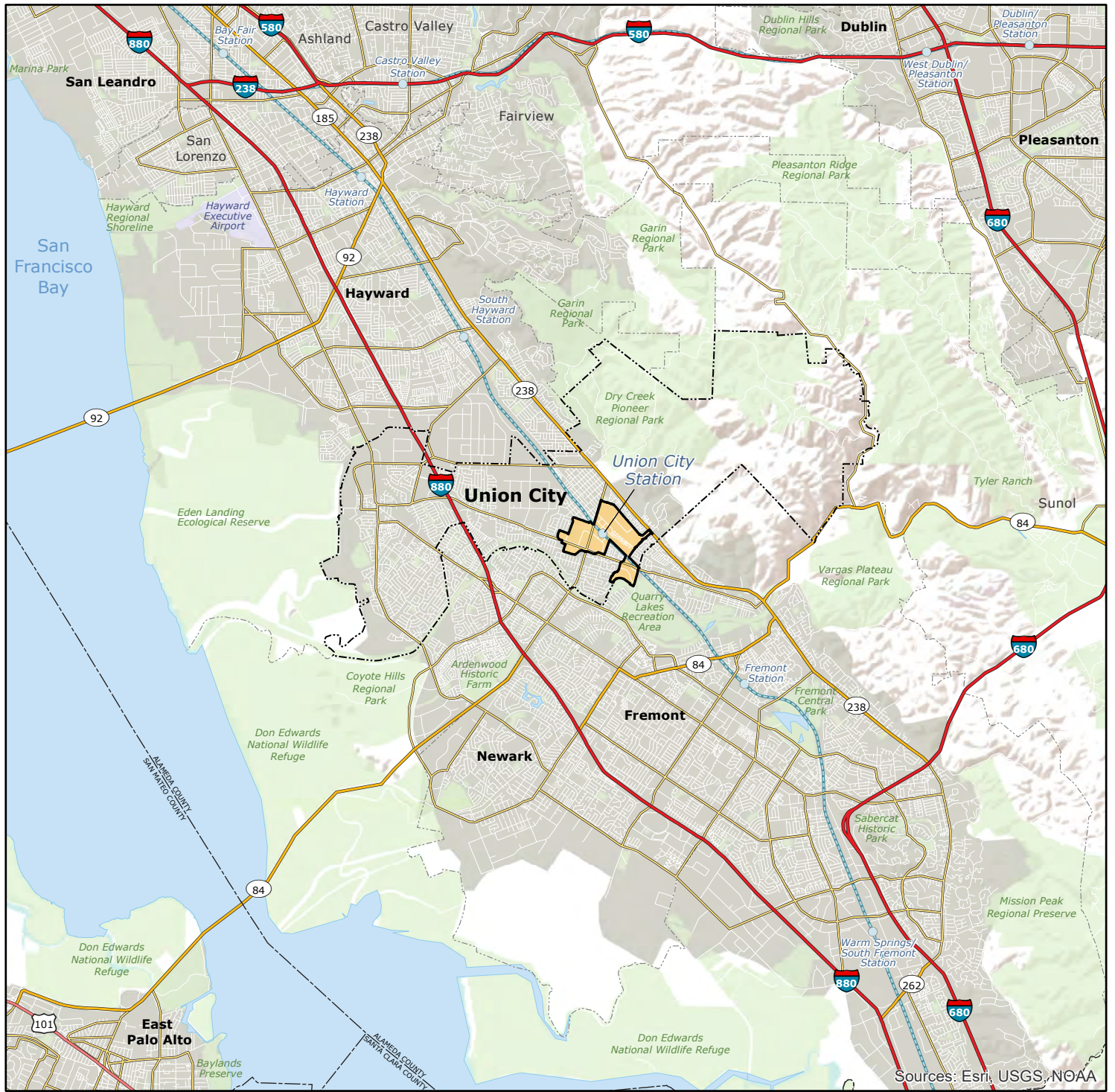
REGIONAL LOCATION

Union City is located in Alameda County, which is one of the nine counties that comprise the Bay Area region. At the subregional level, Union City is located in southern Alameda County, and is part of the Tri-City area, along with the cities of Fremont and Newark. Union City is generally surrounded by the City of Hayward to the north and west, unincorporated Alameda County to the east, and the City of Fremont to the south (Figure 2.1-1).

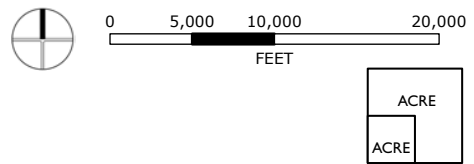
PLANNING AREA AND EXISTING SETTING

This section provides a general overview of the Planning Area; detailed setting for each topic area can be found in Chapter 3 of this EIR. The Station District Specific Plan Planning Area is generally situated in the central portion of Union City and covers approximately 471 acres (Figure 2.1-2, Figure 2.1-3). The Planning Area is anchored around the Union City Intermodal Station, which functions as a multi-modal transit hub with BART, and bus service by UC Transit, AC Transit, and the Dumbarton Express. The Union City BART Station has been part of the system since BART's inception in the early 1970s.

Figure 2.1-1: Regional Location



- Union City Station District
- Union City City Limits
- Parks/Open Space
- Urban Areas
- Cities
- Counties
- BART Station
- BART



Source: City of Union City, 2019; Alameda County GIS, 2019; ESRI GIS Data and Maps, 2019.

Land Use

The Planning Area includes a wide mix of uses – vacant land, industrial uses, housing, large clusters of industrial uses, as well as shopping centers and civic uses. Approximately 45 acres of land is vacant, and is under public and private ownerships. Some of these vacant parcels are the location of active development proposals or the subject of exclusive negotiating agreements with the City, for transit-oriented housing and office. One of the largest vacant parcels in the Planning Area is the 16-acre Restoration Site, owned by the City of Union City and zoned for future office and residential uses. There are opportunities for additional housing, office, research and development, retail, entertainment, public space, and civic and cultural uses throughout the Planning Area.

Transportation

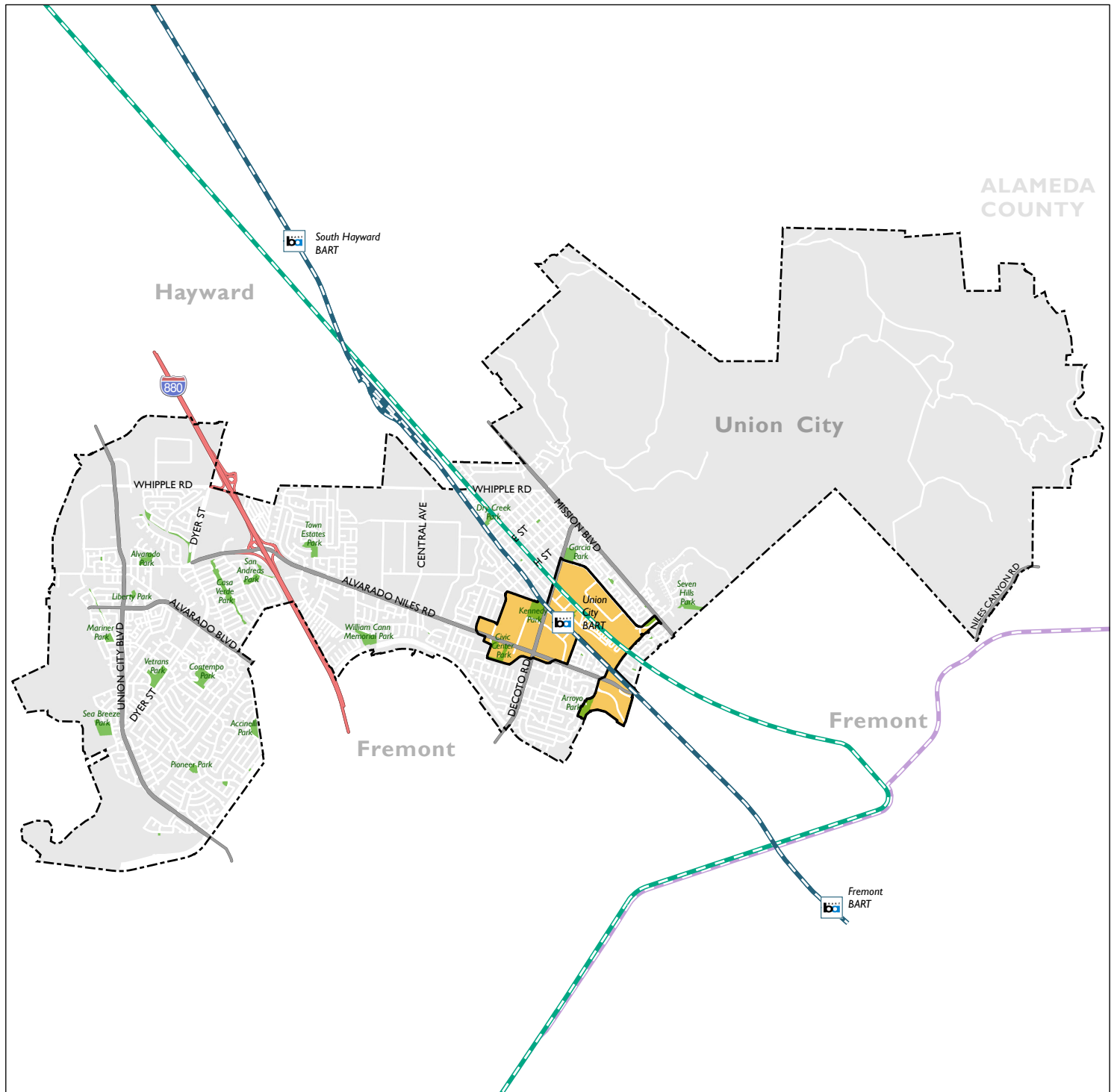
A major transportation feature of the Planning Area is the Union City Intermodal Station, which includes the Union City BART Station and bus access, which is described below in more detail. BART is currently undergoing efforts to extend southbound service beyond the previous terminus of Fremont BART Station through the BART to Silicon Valley extension project, and successfully opened the Milpitas and Berryessa/North San Jose stations in June 2020. Previously the penultimate stop on BART's southbound route, the Union City BART Station now provides regional access throughout the Bay Area.









Regional access to the Planning Area is also provided via Interstate 880, the Dumbarton Bridge, and regional arterials such as Decoto Road and Mission Boulevard (State Route 238). The main arterial streets that serve the Planning Area are Decoto Road, Alvarado-Niles Road, 7th Street, and 11th Street, while primary collectors include Cheeves Way, H Street, Meyers Drive, Quarry Lakes Drive/Isherwood Way, and Union Square. The multi-modal network serving the Planning Area consists of streets of various classifications with sidewalks and some pedestrian amenities along most streets, and intermittent bike facilities.

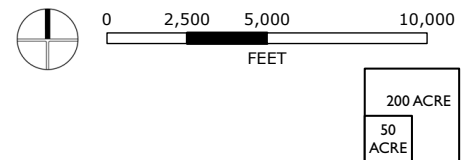
The Quarry Lakes Parkway (QLP) is an approved project in the Planning Area that is moving forward outside of the Specific Plan process. Quarry Lakes Parkway (QLP), a new four-lane local street with buffer bike lanes and a separated Class I multi-use trail connects Paseo Padre Parkway in Fremont and Mission Blvd in Union City. This roadway, parallel to Decoto Road creates a new access to the Station District Area and the east side of the Union City BART Station with a direct connection to 11th Street. More information on the QLP can be found on the Union City website unioncity.org/499/Quarry-Lakes-Parkway-Project.

The Intermodal Station provides bus access for Alameda-Contra Costa Transit District (AC Transit) and Union City Transit (UC Transit), which provide local bus service in the Planning Area; the Dumbarton Express, which provides Transbay bus service and is operated by AC Transit. Most major streets in the Planning Area have bus routes. However, about 66 percent of commute trips in the Planning Area are in single-occupancy vehicles, while public transportation and walking/bicycling make up only 16 and five percent of commute trips, respectively. Table 2.1-1 presents the mode split data based on latest available US Census data for the three Census Tracts in the Planning Area. Given the Planning Area's proximity to a variety of regional public transportation options, there are opportunities to boost transit ridership and expand direct connections to passenger rail.

Figure 2.1-2: Planning Area Location

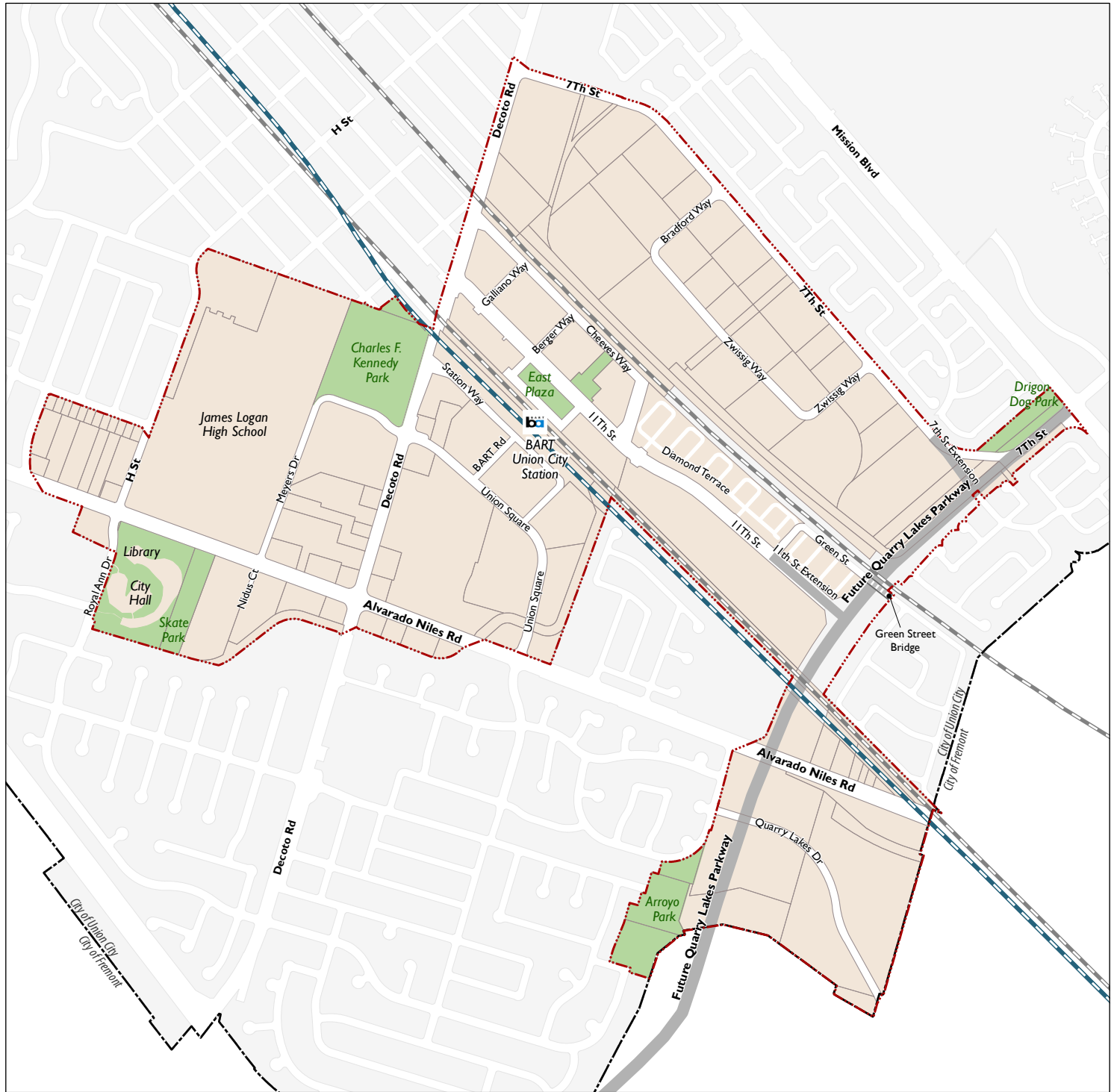


-  Union City Station District Specific Plan
-  Union City City Limits
-  BART Station
-  BART
-  AMTRAK
-  ACE
-  Freeway
-  Major Roads

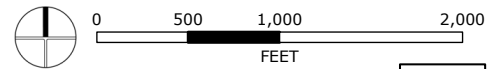


Source: City of Union City, 2019; Alameda County GIS, 2019.

Figure 2.1-3: Planning Area



- Union City Station District
- Union City Limit
- Planning Area Parcels
- Parks
- b Union City BART Station
- BART
- Railroad



Source: City of Union City, 2019; Alameda County GIS, 2019.

Table 2.1-1: Journey to Work for Employed Residents

<i>Transportation Mode</i>	<i>Percent of Households in Alameda County</i>	<i>Percent of Employed Residents in Plan Area Census Tracts</i>
Walked	4%	3%
Bicycle	2%	<1%
Public Transportation	15%	16%
Carpooled	10%	8%
Drove Alone	62%	66%
Worked from Home	6%	5%

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates, Census Tracts 4403.08, 4403.35, and 4403.36.

Environmental Resources and Natural Setting

While most of the land in the Planning Area has been previously graded or developed, undeveloped portions of the Planning Area may contain natural resources. The non-native annual grassland, riparian vegetation, and Alameda Creek tributary located within the Planning Area have the potential for habitat for special status species and migratory birds. Aquatic resources in the Planning Area include the Alameda Creek tributary, unnamed channels, an ephemeral pond, and freshwater ponds. Furthermore, trees of a certain size within Union City are considered protected by the City’s Tree Preservation Ordinance.

The Planning Area is relatively flat but is located within the San Andreas Fault System. The easternmost portion of the Planning Area is about 1,600 feet from the Hayward Fault; the Alquist Priolo Fault Zone that extends along the Hayward Fault extends to Mission Blvd, which is about 1,000 feet east of the Planning Area and only 150 feet southwest from the Hayward Fault. The Planning Area’s location and topography also puts it at moderate risk of flooding, primarily along the Line M Channel, and inundation in the event of failure of the Calaveras, Del Valle, and Ward Creek dams located east of the Planning Area. Given its industrial past, the Planning Area includes several contaminated sites. Additional details about the environmental resources and natural setting within the Planning Area can be found in the Environmental Setting sections in Chapter 3 of this EIR.

Utility Infrastructure

Water

Alameda County Water District (ACWD) owns and maintains the water infrastructure throughout Union City. ACWD updates its Urban Water Management Plan (UWMP) every five years to assess water supply and plan for demand from future development; the most recent UWMP was released in May 2021. The source of water for use and distribution by ACWD is 37 percent from the State Water Project, 21 percent from the San Francisco Public Utilities Commission (Hetch Hetchy), and 42 percent from the Alameda Creek Watershed runoff. The Planning Area consists of water infrastructure constructed in the mid 1950’s through 2010 of differing pipe diameters and materials, including steel, polyvinyl chloride, and cement pipe. Water is sourced from the Blending Facility

operated by the Alameda County Water District, which combines local groundwater and water from the SFPUC water system to meet water demands. Currently, there is no recycled water system available to provide non-potable water to the Planning Area.

Wastewater

Union Sanitary District (USD) owns, operates, and maintains a wastewater collection system that includes approximately 830 miles of underground pipeline and approximately 115,900 connections that direct wastewater to the Alvarado Basin Treatment Plant located at Benson Road in Union City. The sewer mains within the Planning Area are mostly comprised of vitrified clay pipe for the smaller and older pipes, and plastic (PVC or HDPE) for the larger diameters. Wastewater collected by the public sanitary sewer system is conveyed by gravity mains and sewer pump stations to the Alvarado Treatment Plant. The smaller lateral branches tie into trunk pipes which then carry all flows to Union Sanitary District's 33-acre wastewater treatment plant, which has a design capacity of 33 MGD.

Stormwater

Union City owns and maintains the storm drainage collection system, which is comprised of reinforced concrete pipe, and discharges by permit to the San Francisco Bay. The City's stormwater conveyance system is designed to capture, direct, and convey peak storm event flows away from buildings thereby protecting life and public property from flood hazards associated with events that have a less than or equal to one percent chance of occurrence (100-year flood event). Union City, in consultation with Alameda County Flood Control and Water Conservation District (ACFCD) assists applicants in the design of storm drain systems under peak flow rate conditions. The City's system consists mostly of underground pipes, local creeks, and storm channels. These facilities carry runoff water within the drainage basin to nearby flood control channels which are owned and maintained by ACFCD. The ACFCD channel runs along southern edge of subarea. The Planning Area contains a limited number of retention, detention, and stormwater swales. Construction of these facilities, including on-street stormwater swales, will become an important part of the stormwater system as part of future development and C3 implementation.

Current stormwater requirements for construction and new development regulate both the quality and the quantity of storm runoff. Storm water quality is regulated under the San Francisco Bay Municipal Regional Permit (MRP), of which the City of Union City is a permittee. Developments within the Planning Area must meet storm water treatment regulations (C3), hydromodification requirements (C3g), as well as trash capture regulations (C10). Guidelines for implementing these regulations are detailed in the Alameda Countywide Clean Water Program handbook and are reviewed and permitted by Union City. The Alameda County National Pollutant Discharge Elimination System for stormwater runoff includes appropriate source control, site design, and stormwater treatment measures for projects to address stormwater runoff pollutant discharges and prevent increases in runoff flows from new development and redevelopment projects. The San Francisco Regional Water Board also requires treatment of stormwater runoff for new developments, including flow through retention or detention basins, prior to discharge into waterways. Thus, projects will be required to consider design features for stormwater retention, detention, and/or water quality treatment.

Hydromodification requirements are triggered by projects that create or replace one acre or more of impervious area, unless the post-project impervious area is less than or equal to the pre-project impervious area.

Natural Gas and Electricity

Pacific Gas & Electric (PG&E) and East Bay Community Energy provide electricity and natural gas to the Planning Area. As the franchised provider, PG&E has an obligation to provide the public with a safe and reliable energy supply as mandated by the California Public Utilities Commission (CPUC). There is a large gas transmission main below Decoto Road, near the Alvarado-Niles Road intersection. Currently, Decoto Road northeast of Alvarado-Niles Road, all of Alvarado-Niles Road, and some of the other main roadways have already undergrounded all overhead electric and communication utilities. Overhead electric and communications lines are present on some streets within the Planning Area.

PLANNING SUBAREAS: EXISTING SETTING

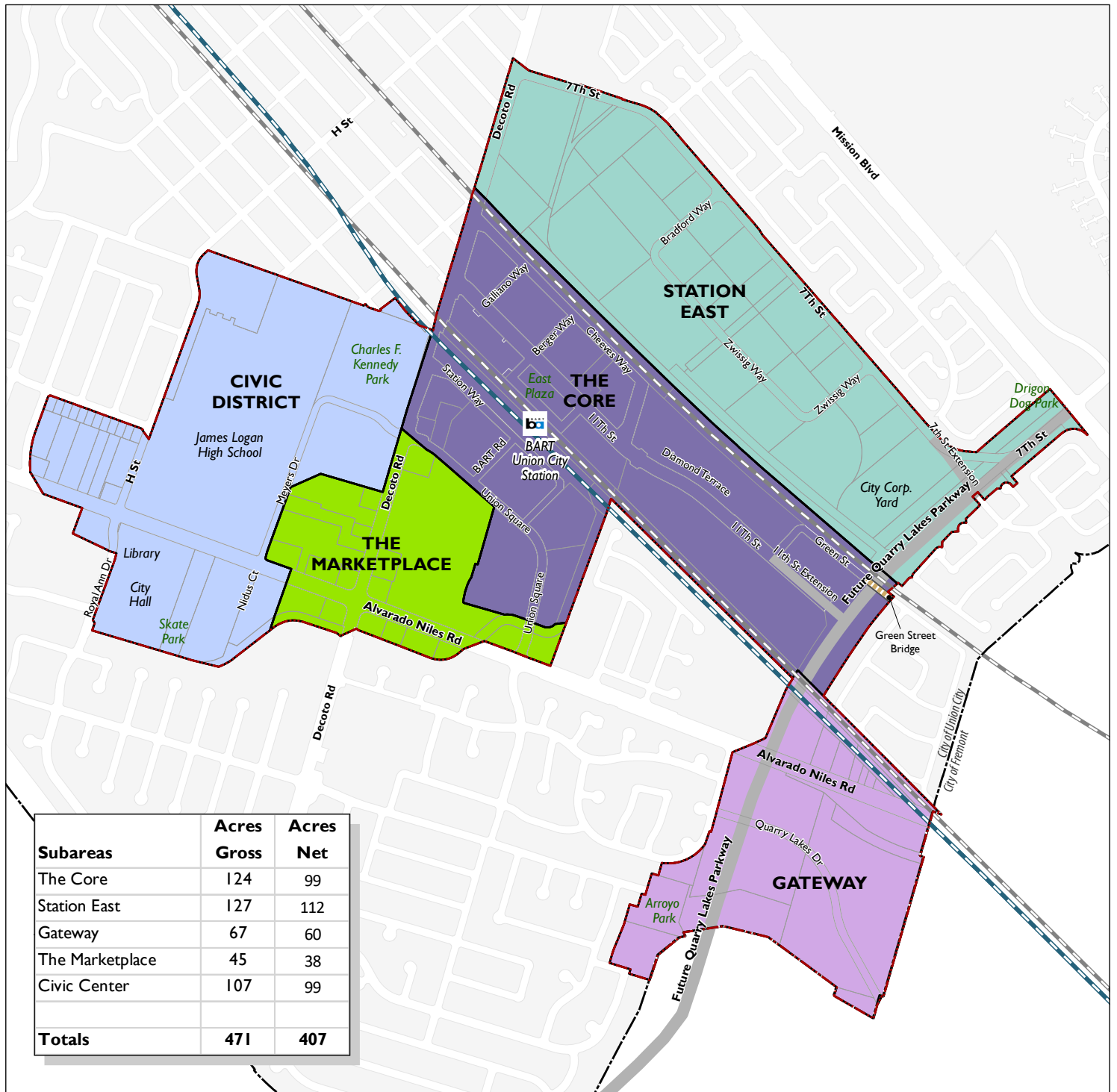
The Proposed Plan identifies five subareas as a framework for planning guidance within the Planning Area: The Core, Station East, The Marketplace, Gateway, and Civic Center (Figure 2.1-4). Their existing setting is characterized as follows.

The Core

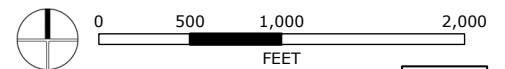
The Core subarea is located in the center of the Planning Area and encompasses approximately 124 gross acres. The subarea includes the Union City Intermodal Station. As a regional transit connector, it plays an important role in the development of the Planning Area as a whole. Existing development found within the Core includes residential apartment buildings, live/work spaces, a few commercial buildings, a small amount of ground-floor retail space in residential mixed-use buildings, and several surface parking lots, mainly used by BART riders and residents. The Core consists of low- and mid-rise residential development, including Union Flats (243 residential and work/live units with a small ground-floor non-residential space), Station Center (157 1- to 3-bedroom apartments and 8,600 square feet of retail space), Avalon Bay (438 1-, 2-, and 3-bedroom apartments), the Verandas (282 1- and 2-bedroom apartments), and Pacific Terrace (216 3-story townhomes). Several development projects have been proposed or approved in the Core, including “Windflower 2”, the 443-unit second phase of the Union Flats Apartments, and Union 1.2, which includes 1.2 million square feet of office development on three vacant sites located along 11th Street.

A prominent site within the Core is the 16-acre City-owned property known as the “Restoration Site,” one of the largest vacant parcels in the Planning Area. The site is currently vacant and has a zoning designation of Research and Development Campus (RDC). As part of the Zoning updates, this site will be re-zoned to Station Mixed Use Commercial (CSMU) for consistency with the site’s General Plan designation of CSMU, which was updated as part of the 2040 General Plan effort. The site consists of a capped, 22-foot-tall mound that is underlain with the byproduct generated by the former Pacific States Steel Corporation, primarily slag.

Figure 2.1-4: Planning Subarea



- Subareas**
- The Core
 - Station East
 - Gateway
 - The Marketplace
 - Civic Center
- Union City BART Station
 - BART
 - Railroad
 - Union City Station District
 - Union City Limit



Source: City of Union City, 2019; Alameda County GIS, 2019.

There are a variety of road sizes and typologies found throughout the Core. Decoto Road, along the western edge of the Core, is a four-lane arterial with sidewalks and Class II bike lanes on both sides. 11th Street, a primary collector street located on the east side of the Oakland subdivision railroad tracks, has parallel parking, wide sidewalks and Class II bike lanes on both sides of the street. Union Square, located west of the Intermodal Station, is a main collector street and includes two lanes with a middle-shared turn lane. This road includes narrow sidewalks, parallel on-street parking, and Class II bike lanes on both sides.

Most public spaces within the Core are located on the east side of the BART tracks. A playground including a pyramid-shaped climbing structure and seating is complemented by the East Plaza across from it along 11th Street. The East Plaza has a large grassy open space with a sunken plaza, fountain and benches. The promenade between Union Flats and Station Center provides a linear east-west public space, and will eventually serve as a link between the BART Station and the Station East subarea once additional connections are made across the Niles Subdivision railroad line. Vegetation in the Core includes non-native, annual grassland, ruderal, and barren land. An ephemeral pond is located adjacent to the Restoration Site within the alignment of the future Quarry Lakes Parkway.

Station East

The Station East subarea is located east of the Core subarea and covers approximately 127 gross acres. Station East is bordered by the Niles Subdivision, Decoto Road, Seventh Street and the future Quarry Lakes Parkway. The subarea consists of largely industrial land uses and vacant property. As such, the building scale is typically one to two stories tall and mostly consists of large industrial buildings.

A separate EIR was prepared and certified for development of a portion of the Station East subarea. The State Clearinghouse Number for the Station East Residential/Mixed Use Project is 2020039032. The Station East Residential/Mixed Use Project (approximately 26.5 acres) proposes a new mixed use residential neighborhood on land that is currently vacant or in industrial close to the Union City Intermodal Station. The project includes a mixed-use residential neighborhood complete with parks, affordable housing, and multi-modal connectivity. The project was approved in June 2021 and includes 974 multifamily units, of which 146 are affordable, along with 30,800 square feet of commercial space located within mixed use buildings along Decoto Road. The project also incorporates public realm improvements including a new grid of streets, multi-modal improvements, and approximately 10 acres of public and private open space including approximately two acres of public parks, plazas and paseos.

The primary access to Station East is currently the collector road, Seventh Street. Seventh Street has two wide lanes, unmarked parallel street parking, a narrow sidewalk along the Station East side of the street and a mixture of landscaping and trees. Seventh Street is largely walled off on the east side due to the existing single-family neighborhood and the road connections into this neighborhood are along Mission Boulevard. The only local street, Bradford/Zwissig Way, is similar in design to Seventh Street and largely lacks the type of streetscape amenities that would encourage pedestrian or bicycle usage. Overall, the industrial buildings, large parcels and bare streetscape are designed primarily for large truck access.

The Drigon Dog Park is located in the far eastern corner of the Station East subarea, along Seventh Street. There are a few smaller community parks in the vicinity of the subarea, but outside of the Planning Area boundary, located within adjacent single-family neighborhoods. A few channels run throughout the site that convey water. Station East also includes private access roads belonging to Alameda County Water District.

The Marketplace

The Marketplace subarea is located west of the Core subarea and covers approximately 45 gross acres. The Marketplace includes two large single-story shopping centers as well as a variety of single-story restaurants, gas stations, retail uses and surface parking lots along the arterials. This shopping area is a popular destination for residents who live on the east side of the city and has historically had low vacancy rates.

The Marketplace subarea is at the intersection of the two largest arterial roads in the Planning Area: Decoto Road and Alvarado-Niles Road. Both roads are designed similarly and have four lanes of through traffic, two turn lanes, narrow sidewalks, Class II bike lanes and on-street parking in some areas. This subarea is largely made up of large blocks and surface parking lots, with limited and infrequent pedestrian, bike, or street connections through the blocks.

While the shops are open to the public, there are no publicly-owned parks or public spaces within the subarea. The Marketplace Shopping Center contains a privately-owned outdoor plaza with seating and a fountain. The Marketplace does not include any known natural resources, though the ACFC channel runs along southern edge of the subarea and the roads are lined with a variety of street trees and landscaping.

Gateway

The Gateway subarea is located in the southwest portion of the Planning Area and covers approximately 67 gross acres. The Gateway is bounded to the east by the BART tracks, open space to the west, the Purple Lotus Temple and Quarry Lakes Regional Recreation area to the south (located in Fremont) and a residential subdivision to the north. Most of the subarea is vacant or currently being used to grow row crops, with a few commercial uses, including RV storage, an auto repair shop and a few residences. All the buildings within this subarea have small footprints and the majority are single-story. The Gateway subarea also includes the Peterson House, which is eligible for listing in the National Register of Historic Places. It also includes Silva Farm which was previously determined *not* eligible for inclusion in the National Register or for registration as a California Historical Landmark. The City has purchased the property formerly owned by Caltrans that is planned to accommodate the future Quarry Lakes Parkway and residential development.

There are two roads within the subarea: Alvarado-Niles Road and Quarry Lakes Drive. Alvarado-Niles Road is a large arterial street that runs east-west through the northern portion of the Gateway subarea. While it is four lanes wide elsewhere in the City, it transitions to a two-lane road in the Gateway subarea. It includes some pedestrian amenities, including sidewalks and on-street parallel parking along the northern side of the road and Class II bike lanes in each direction. Quarry Lakes Drive bisects the subarea and is a two-lane road that connects to the Quarry Lakes Regional Recreation Area. In addition to a Class II bike lane on each side, there is a ten-foot detached multi-use path along the northern edge of the street. Lotus Pond Common, a private road, diverges from

the Alvarado-Niles Road near the City's southerly boundary line and provides access to the Purple Lotus Temple. The future Quarry Lakes Parkway will run through the Gateway subarea.

There is one public park located in the Gateway subarea, Arroyo Park, which is located at the western edge of the subarea. Arroyo Park has a variety of amenities, including four tennis courts, two basketball courts, a playground, restrooms and grassy fields. While there are no other parks or public spaces on the site, the subarea has easy access to Quarry Lakes Regional Recreation Area. Owned by the East Bay Regional Park District and located within Fremont city limits, this regional park covers nearly 471 acres, 350 of which are covered by water. Biological resources in this subarea include riparian vegetation as well as grassland, barren land, and land used to grow crops.

Civic Center

The Civic Center subarea is located in the western portion of the Planning Area and covers approximately 107 gross acres. It includes key local government facilities including City Hall, the Union City Library, New Haven Unified School District offices, Ruggieri Senior Center, Kennedy Youth Center, and James Logan High School. Most of these buildings are one or two stories tall with large building footprints. This subarea also includes a small number of multifamily residential buildings and a religious facility.

The Civic Center subarea contains large blocks with infrequent local street connections. Development is primarily auto-oriented with large lots, large building footprints, large setbacks from the street, and many surface parking lots. The four-lane arterial Alvarado-Niles Road runs through the site and provides the primary automobile access to the subarea. While it does have Class II bike lanes, parallel street parking and narrow sidewalks on both sides of the street, it is mostly designed for vehicular traffic. The other streets located along the subarea, Meyers Drive and H Street, are primarily designed as local roads with two-lanes of traffic, no bike lane markings, unmarked on-street parallel parking, and narrow sidewalks.

The Civic Center includes two publicly accessible parks: the William M. Cann Civic Center Park located adjacent to City Hall and Charles F. Kennedy Park located at the corner of Meyers Drive and Decoto Road. In addition to city offices, the Civic Center Park includes a playground, a freshwater pond, a skate park, picnic tables and walking paths. The other public park, Kennedy Park, includes the Kennedy Youth Center, a playground, a pavilion, large grassy areas, public restrooms, a basketball half-court, a public baseball field, and an amphitheater.

2.2 Planning Context and Process

The Union City Intermodal Station has had BART service since the system's opening in 1972, providing rapid transit connections to East Bay job centers such as Oakland and Berkeley, as well as San Francisco. In 1994, the City adopted the Decoto Industrial Park Study Area Specific Plan (DIPSA Plan) for a 440-acre area centered around the Intermodal Station and extending northeast to encompass the Decoto Industrial Park. The DIPSA Plan aimed to redevelop much of the area historically occupied by aging industrial uses to a mix of office, residential, retail, and light industrial uses. In 2006, the DIPSA Plan was updated to reflect remediated land and recent development, including new housing, sports fields, and an elementary school. The DIPSA plan was

also updated at that time for consistency with the 2002 General Plan, which provided a vision and land use framework for the core Station District. The 2002 General Plan envisioned a vibrant town center that included intensive commercial and residential mixed-use development, multi-modal connectivity, and well-designed public spaces oriented around BART.

Other local planning efforts that have guided past development of the Planning Area include the Intermodal Station District and Transit Facility Plan (2001), the Union City Station Comprehensive Plan (2002), the Station District Strategic Action Plan (2004), and the Union City Transit-Oriented Development Guidelines (2007). The Union City 2040 General Plan (2019) calls for the Station District to continue evolving into a higher intensity, walkable, transit-oriented district, with a mix of residential, employment, retail, and civic uses, complemented by engaging and attractive public spaces. The 2021 update of Union City’s Bicycle and Pedestrian Master Plan provides a citywide framework for improved bicycle and pedestrian facilities, with a focus on connections to key destinations such as the Union City Intermodal Station.

STATION DISTRICT PLANNING PROCESS

In 2018, the City was awarded a Priority Development Area (PDA) Planning Grant by the Metropolitan Transportation Commission to update the DIPSA Plan. The Planning Area (as shown in Figure 2.1-2) encompasses most but not all of the land originally included in the DIPSA boundary.

The Station District Specific Plan process began in 2019. The Proposed Plan was created to implement the vision of the Union City 2040 General Plan (UC 2040), which calls for the transformation of the Greater Station District—a 471-acre area surrounding the Union City BART Station, which is designated as a Priority Development Area by the Metropolitan Transportation Commission—into a dynamic, transit-oriented district with a diversity of uses that create a vibrant atmosphere where people live, work, and socialize. The planning process was informed by land use, transportation, design, and policy considerations provided by the Community Advisory Committee (CAC), community, Planning Commission, and City Council. Throughout the planning process, the community, stakeholders, and decision-makers were engaged on issue identification, vision and goal setting, alternatives analysis and synthesis. Public input was obtained through stakeholder meetings, a community meeting, an online survey, and through the project website (www.unioncity.org/SD). The Station District planning process included the following four phases:

1. **PDA Profile.** The project team documented existing conditions of the Priority Development Area, including the Planning Area context, demographic and socio-economic characteristics, transit/travel patterns and use, land use opportunity sites and key development constraints and any other known issues that to be considered in the planning process.
2. **Alternatives and Key Strategies.** The project team prepared and analyzed a series of different policy and design concepts. After extensive public outreach and decision-maker input, the project team narrowed options to a single Preferred Plan.
3. **Draft Specific Plan.** Based on the Preferred Plan, the project team prepared a public review draft of the Station District Specific Plan along with an Environmental Impact Report (EIR) that analyzes the environmental effects of Specific Plan policies and development potential.

4. **Zoning Regulations and General Plan Amendments.** The project team will prepare all necessary documents and changes in parallel with Specific Plan development with the intent of adopting at the same time as the Specific Plan to facilitate implementation.

2.3 Purpose and Objectives of the Proposed Plan

Under California law, cities and counties may use the specific plan process to develop policies, programs, and regulations for implementing their general plans on specific sites or in specific areas. A specific plan frequently serves as the bridge between the general plan and site development plans in this regard. Once a specific plan is adopted, no rezoning, subdivision, use permit, development plan, or other entitlement for use shall be authorized for construction within the specific plan area that is not in substantial conformance with that specific plan. The Proposed Plan is intended to serve as the City's guide for development surrounding the Union City Intermodal Station, establishing policies and programs related to land use, circulation, infrastructure, , urban design, economic development, and the environment.

VISION AND OBJECTIVES

To identify community priorities for the Planning Area and help guide the preparation of the Proposed Plan, a vision statement and objectives were developed at the outset of the process. These guiding principles, stated below, serve as the project objectives for purposes of CEQA analysis.

VISION

The Union City Station District Specific Plan is envisioned as a dynamic, diverse, transit-oriented area, where people live, work, and socialize. Union City welcomes people of all ages, income levels, and backgrounds, and it's this diversity that is key to the area's vitality. The Station District is envisioned to grow in a manner that continues to meet the needs of its current and future residents, retain, and expand its business base, and attract new businesses. The Station District will be connected through a comprehensive network of trails, paseos, bikeways, and pedestrian-friendly streets and parks and public spaces.

The Station District will continue to grow and accommodate a mix of uses including a range of housing options a focus on employment generating uses and opportunities to enhance retail uses. The plan will also focus on a range of mobility options to decrease the reliance on the automobile. We envision a range of community and public spaces, on both public and private land, throughout the Station District that provide a variety of programming and activation opportunities.

OBJECTIVES

The guiding principles stated below were developed during the Specific Plan process and, for purposes of CEQA analysis, serve as the project objective. They direct the overall strategy, policies, design, and investments that are included in the Station District Specific Plan and are integrated into concepts for each subarea of the Specific Plan.

- **Promote a Vibrant, Mixed Use Community.** Foster an integrated urban community with a diverse mix of residential, commercial, office, industrial, and civic uses for residents, workers, and visitors.

- **Create a Well Connected District.** Extend the existing east-west central spine to link the Marketplace, Intermodal Station, the Core, and Station East, prioritizing pedestrian and bicycle connections. Create an interconnected network of streets, sidewalks, bicycle lanes, pathways, and multi-use trails that knit the district together and enable people to traverse the area easily and directly on foot or bicycle.
- **Promote a Network of Open Space Amenities.** Establish a cohesive system of parks and plazas to enhance the area’s livability and provide open spaces within walking distance of residences and businesses, including linking greenways that enable active recreation.
- **Ensure High Quality Design.** Promote building and landscape design that create a sense of place and reflect the district’s unique contemporary identity, with unified streetscapes, signage and urban design elements that foster identity and a sense of place.
- **Promote Sustainability.** Continue to promote green leadership in Union City by maintaining and expanding the Station District as a sustainable and healthy community with sustainable building and landscape design, sustainable water use and irrigation practices, and reduced energy use. Encourage outdoor and active living with more opportunities for healthy choices including walking and biking, readily available access to transit, housing in close proximity to workplaces, and access to parks, play spaces and open space for kids and families to enjoy.
- **Embrace Diversity.** Accommodate the needs of people of diverse backgrounds, interests, and income levels, creating an inclusive, accessible, inviting, and safe place for all.
- **Support Housing Development and Provide a Variety of Housing Types.** Support a range of housing opportunities, including affordable housing to address Union City’s housing needs and the State’s housing objectives for the area.
- **Ensure Long-Term Fiscal Sustainability.** Provide a range of jobs, retail, and housing uses to ensure fiscal sustainability and support necessary infrastructure improvements.

2.4 Proposed Plan

This section provides a brief overview of key plan components, which integrate the Vision and Objectives and include policies and standards for land use, transportation, infrastructure and public facilities, urban design, and environmental quality. Proposed Plan strategies, policies, and actions are considered throughout this EIR both in terms of their environmental impacts and, where relevant, of how those policies may reduce or avoid potential impacts.

PLANNING HORIZON

Implementation and buildout of the Proposed Plan is anticipated to occur over a period of approximately 20 years through 2040. Per California Government Code Section 65453(a), a specific plan may be amended as often as deemed necessary by the City. Union City may decide to update the Proposed Plan again prior to 2040 if opportunities and challenges arise in the Planning Area that necessitate new strategies for development.

ORGANIZATION

The Proposed Plan is organized into seven chapters, listed below. Chapters 2 through 7 present background information and context followed by goals, policies, and implementation programs. Goals are statements of broad direction, philosophy, or standards to be achieved. Policies are actionable statements that support the implementation of the goals. Implementation programs are measures including regulations, programs, public works projects, and financing measures necessary to carry out the Proposed Plan. These policies are to be used by Union City and other stakeholders to guide regulatory changes, public investments, partnerships, and other actions over the course of the planning period. The contents of the chapters are as follows:

1. **Introduction.** This chapter describes the Planning Area and its existing physical and regulatory context, outlines the vision and objectives for the Plan, and provides an overview of the Proposed Plan subareas.
2. **Land Use.** This chapter discusses existing and allowed land uses in the Planning Area, including allowable development densities and intensities.
3. **Urban Design.** This chapter provides guidance for the scale, design and character of blocks, buildings, streetscapes, parks, and other public spaces. This chapter includes building development standards for the Planning Area.
4. **Mobility.** This chapter provides an overview of the Planning Area's existing and planned transportation system, including its pedestrian and bicycle network, and public transit options and accessibility.
5. **Environmental Quality.** This chapter provides guidance for addressing noise, hazards, air quality, and other environmental resource issues that affect the Planning Area.
6. **Infrastructure and Public Services.** This chapter provides an overview of the existing and planned water, wastewater, stormwater infrastructure, and public services for the Planning Area.
7. **Implementation.** This chapter provides an infrastructure cost assessment and preliminary financing strategies for infrastructure and public improvements

KEY PLANNING STRATEGIES

The Planning Area is envisioned to feature a vibrant Core subarea focused around the Intermodal Station that is connected through a network of vibrant streets and public spaces. The Proposed Plan includes policies and implementing actions intended to promote sustainability, ground floor activation, and visually interesting building design that would foster a unique sense of place that further establishes the Planning Area as a place for community gathering.

The Planning Area will feature a mix of uses including a range of housing types at different densities, jobs-producing uses, civic and community uses, and a range of new and existing commercial spaces to enhance the retail experience. The Proposed Plan envisions network of streets and open spaces, and a Pedestrian Spine linking subareas to support the continued transition of the Planning Area into a vibrant, walkable neighborhood with increased access to walking, biking, and using transit. The proposed circulation network is shown in Figure 2.3-3.

The Planning Area would include a network of neighborhood parks, plazas, paseos and pedestrian oriented streets that comprise the public realm. Leveraging the recent development in the core subarea, the Proposed Plan would establish a cohesive system of parks and plazas to enhance the area's livability and provide open spaces within walking access of new homes, including linking greenways that enable active recreation. It is also envisioned that whether on public or private property, there will be ample community space to socialize.

Land Use Designations

To implement this vision, the Proposed Plan includes three new land use designations that build on direction from the General Plan. The new land use designations include Marketplace Mixed Use, Station East Mixed Use Residential and Station East Mixed Use. While the General Plan envisioned the same uses identified in the Station East subarea, it did not create separate land use designations for this area, which was determined to be necessary through development of the Station District Specific Plan process. The Proposed Plan Land Use Diagram (Figure 2.4-1) shows the proposed location, distribution, and extent of allowed land uses in the Planning Area, as described below.

Residential – 3-6 Dwelling Units per Net Acre

The Residential (3-6 du per acre) covers 0.8 acres, within Gateway Subarea. This is the predominant residential development type in Union City. The allowed density range is 3 to 6 units per gross acre. The lot size range for this designation is 6,000 to 10,000 square feet.

This designation has an allowed density range of 3-6 units per net acre and allows single family detached homes and accessory dwelling units.

Residential – 10-17 Dwelling Units Per Net Acre

The Residential (10-17 du per acre) covers 37.3 acres, within the Core and Gateway Subareas. This land use designation is typically applied to transitional areas between higher intensity uses and lower density single family residential areas. This designation is applied to the Pacific Terrace residential development located along 11th Street and a portion of the currently vacant Gateway Subarea.

This designation has an allowed density range of 10-17 units per net acre and allows duplexes as well as multi-family dwellings.

Residential – 17-30 Dwelling Units Per Net Acre

The Residential (17-30 du per acre) covers 16.5 acres, within the Civic Center and Gateway Subareas. As well as serving as a transitional land use between single family and higher intensity non-residential areas, it is applied near major transportation routes, facilities, and core shopping areas where a mixture of higher intensity activities is desired. This designation is applied to three parcels, two of which consist of multi-family dwellings in the Civic District Subarea, and the third covering an undeveloped parcel within the Gateway Subarea.

This designation has an allowed density range of 17-30 units per net acre and allows multi-family dwellings.

Station East Mixed Use Residential (SEMUR).

The Station East Mixed-use Residential designation covers 33.9 acres, within the Station East Subarea. The designation establishes a high-density residential and commercial district which allows for multi-family residential uses and mixed-use residential uses that include ground floor commercial uses along the site's major thoroughfares.

The district allows residential uses with a minimum density of 25 units per acre, a maximum density of 100 units per acre and an average density of no less 50 units per acre.

Station Mixed Use Commercial (CSMU).

The Station Mixed-use Commercial (CSMU) designation covers 70.5 acres, within the Core Subarea. The designation is intended to establish a new walkable town center distinguished by its visual prominence and high intensity development. The CSMU designation allows a mix of high-intensity retail, office, hotels, residential uses, and public spaces in the vicinity of the Intermodal Station, creating an inviting place to live, work, shop, and play.

Though primarily commercial in nature, the designation allows high-density residential uses, ranging between 100 to 165 units per net acre in areas that will help promote and sustain commercial development. This designation has an allowed floor area ratio (FAR) up to 4.2

Station East Employment (SEE) (formerly Research and Development Campus)

The Station East Employment (SEE) designation covers 54.6 acres, within the Station East Subarea. The purpose of the designation is to establish a high-density research and development and office district which allows for commercial, office, lab and light manufacturing uses to create a campus setting.

Ground floor commercial uses, including retail and offices uses, are envisioned along the central spine. This designation is intended to take advantage of proximity to the Intermodal Station and facilitate Station East's transformation into an urban mixed-use environment that promotes multi-modal mobility within and to surrounding communities. The allowed FAR for all uses is up to 3.0.

Marketplace Mixed Use (MMU).

The Marketplace Mixed Use (MMU) designation covers 35.8 acres, within The Marketplace Subarea. The designation is primarily retail with a strip mall typology and large surface parking lots. The MMU designation allows a mix of high-intensity retail, office, hotels, residential uses, and public spaces creating an inviting place for locals and visitors. A central spine will connect the Marketplace to the Intermodal Station.

The designation allows high-density residential uses, ranging between 30 to 100 units per acre. The MMU designations has an allowable FAR of up to 3.0, inclusive of residential uses. The existing amount of retail would need to be maintained when adding residential uses to the area.

Corridor Mixed Use Commercial (CMU)

The Corridor Mixed Use Commercial (CMU) designation covers 1.6 acres, within the Gateway Subarea. This designation allows stand-alone commercial uses and residential uses that are vertically integrated with ground floor commercial.

The allowed FAR range for mixed-use buildings is between 0.5 and 1.50, and the allowed residential density range is 17-45 units per acre. The allowable FAR for stand-alone commercial is 0.3 to 1.00.

Commercial (C)

The Commercial (C) designation covers 0.7 acres, within the Gateway Subarea. This designation allows retail uses, personal services, professional offices, banks, restaurants, and entertainment uses. The allowed FAR range for buildings located in this designation is between 0.25 and 1.00. The minimum parcel size for this designation is 5,000 square feet.

Private Institutional (PI)

The Private Institutional (PI) designation covers 5.2 acres, within the Civic Center and Gateway Subarea. Land uses allowed under this designation include but are not limited to religious facilities, private educational facilities, private non-profit and service organizations, and continuing care retirement communities. There is one site with this designation within the Civic Center Subarea, that accommodates a religious facility.

Civic Facility (CF)

The Civic Facility (CF) designation covers 95.4 acres, or approximately one quarter of the Station District. It is applied to major public buildings and facilities that are owned by City, County or other public agencies, intended for public use. These sites are located in several subareas. The public facilities located in this designation include the Police Department, City Hall, and Corporation Yard, Ruggieri Senior Center and Kennedy Youth Center, the Union City Library, James Logan High School, transit facilities and stations, and Fire Department Station 31.

Open Space (OS)

The Open Space land use designation covers 41.6 acres. The designation includes passive and active recreation sites, as well as resource management areas, parkways, and flood control facilities including the ACFCD Line M channel. Uses that would be appropriate in this land use designation include, but are not limited to, public parks, playgrounds, golf courses and driving ranges, vista areas, parkways, wetlands, wildlife habitats and outdoor nature laboratories; stormwater management facilities; and buffer zones separating urban development and ecologically sensitive resources. Table 2.5-1 provides the acreages associated with each proposed land use designation.

Table 2.4-1: Proposed Land Use Designations

<i>Proposed Land Uses</i>	<i>Acres</i>
Residential (3 - 6 du/ac)	0.8
Residential 10-17 du/ac)	37.3
Residential (17 - 30 du/ac)	16.5
Station East Mixed Use Residential (SEMUR)	33.9
Station Mixed Use Commercial (CSMU)	70.5
Station East Employment (SEE)	54.7
Marketplace Mixed Use (MMU)	35.8
Corridor Mixed Use Commercial (CMU)	1.6
Commercial (C)	0.7
Private Institutional (PI)	5.2
Civic Facility (CF)	95.4
Open Space (OS)	41.6
Transportation, roads, and right-of-ways ¹	76.6
Total Planning Area	470.5

Note:

1. Not a land use designation.

Source: Dyett & Bhatia, 2021.

SUBAREA PLANNING STRATEGIES

The Core

The Core subarea is envisioned as a mix of uses including a major transit hub, business center, ground floor retail uses with residential unit above, well connected to the rest of the city. The City-owned land known as the “Restoration Site,” between 11th Street and the BART tracks, is envisioned to include a flexible mix of residential, office, and/or retail with open space. Proposed land uses within the Core subarea include Station Mixed Use Commercial, Residential (10-17 du/ac), and Open Space.

Development in the Core is also anticipated to include new street and pedestrian improvements, pedestrian and bicycle connections to 11th Street, the Intermodal Station and surrounding communities, creation of new public spaces, continued improvements to existing open spaces such as the Plaza area, and a range of public and private parking. The Restoration Site along 11th Street will also have new roads that will serve to connect the future development.

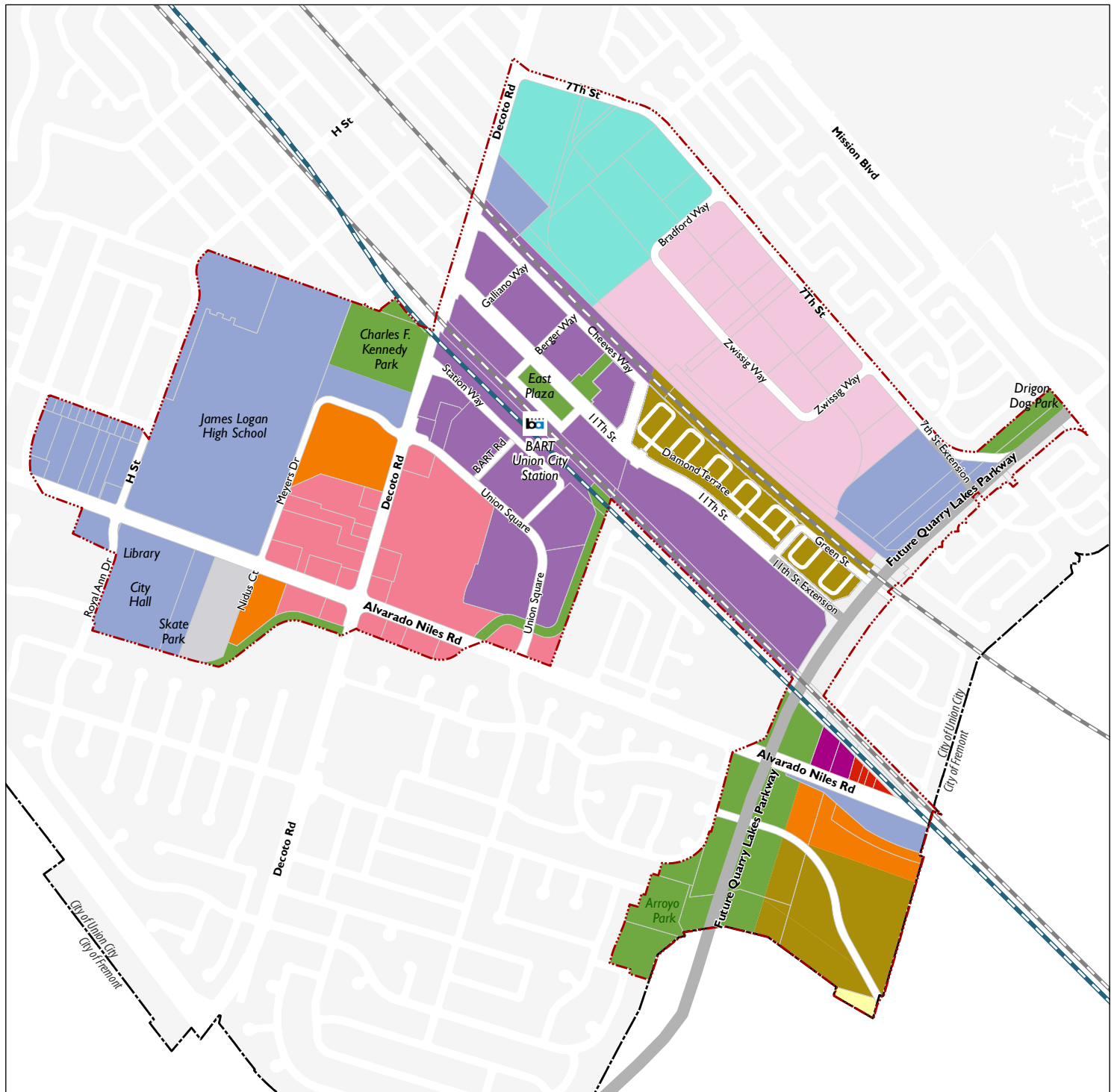
STATION EAST

The Station East subarea is envisioned as a vibrant hub of prosperity and innovation, with a significant cluster of technology and office uses replacing industrial uses, and a mixed-use residential area providing a range of housing options. New streets and pathways, buildings and plazas, and greenways along railroad spurs will foster a connected, urban quality, and provide direct access to the Intermodal Station.

The Proposed Plan allows residential and commercial uses in the portion of Station East closest to Decoto Road. The major development anticipated to occur in Station East is the Station East Residential/Mixed Use Project, a 974-unit (including 146 affordable units) project initiated by Integral Communities, which also includes approximately 30,800 sq. ft. of ground-floor commercial along Decoto Road and new parks, public spaces, and internal street connections. The proposed development encompasses 26.5 acres of the 33.4 acres of vacant and underutilized sites within the Station East Mixed-Use area per the General Plan 2040. Environmental impacts associated with construction of the Station East Residential/Mixed Use Project are evaluated separately in the Station East Residential/Mixed Use Project Draft EIR, which is incorporated by reference. The project received entitlements from the City in June 2021. The remaining Station East area, south of Bradford Way is envisioned to include a range of employment uses, including office and R&D uses, as well as public amenities to serve the future day-time population including plazas and recreational outdoor space. Proposed land uses within the Station East subarea include Station East Mixed Use Residential, Station East Employment, Civic Facility, and Open Space.

A new multi-modal circulation network is planned for the Station East area including improvements to existing roadways such as Bradford Way, 7th Street and Decoto Road. The proposed Station East Residential/Mixed Use Project would include bicycle and pedestrian facilities and add the following new streets to the network: 8th, 9th, M, L, and K Streets. Additional streets within the Station East subarea will be added as industrial land south of Bradford converts to office and R&D uses. This range of land uses would be complemented by a network of open spaces and paseos linking important destinations throughout the Station East area and accessed through the Pedestrian Spine that will extend west to the Intermodal Station and the Core Station District.

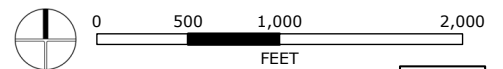
Figure 2.4-1: Proposed Land Use



Landuse

- Residential – 3-6 Dwelling Units/Gross Acre
- Residential – 10-17 Dwelling Units/Gross Acre
- Residential – 17-30 Dwelling Units/Gross Acre
- Station East Mixed Use Residential (SEMU-R)

- Station Mixed Use Commercial (CSMU)
- Station East Employment (SEE)
- Marketplace Mixed Use (MMU)
- Corridor Mixed Use Commercial (CMU)
- Commercial (C)
- Private Institutional (PI)
- Civic Facility (CF)
- Open Space (OS)



- Union City Station District
- Union City Limit
- Union City BART Station
- BART
- Railroad



Source: City of Union City, 2019; Alameda County GIS, 2019.

The Marketplace

The Marketplace subarea is anticipated to be a vibrant, walkable citywide destination with community-serving and specialty retail, dining, services, and entertainment uses, new streets, and public spaces, with a complementary mix of residential, office, and other uses. Future development and public space improvements would enhance and complement the Marketplace's existing retail character with improved public spaces, active street frontage, and the introduction of residential and office in targeted locations.

Within the Marketplace area, it is assumed that the existing net amount of retail square footage would remain the same, even if some retail uses are redeveloped into mixed-use retail formats, residential uses, or new and updated stand-alone retail. Retail uses are anticipated to be provided in a range of formats, including stand-alone retail, community-oriented retail such as a public market, or retail integrated into the ground floor of mixed use buildings. Marketplace Mixed Use is the proposed land use designation within the Marketplace subarea. The designation allows high-density residential uses, ranging between 30 to 100 units per acre. The MMU designations has an allowable FAR of up to 3.0, inclusive of residential uses. The existing amount of retail would need to be maintained when adding mixed use to the area.

With implementation of the Proposed Plan, construction of enhanced bicycle and pedestrian connections, public realm improvements, new streets, and open space is envisioned, and the central area of the marketplace would include a central park with a variety of amenities, and ground-floor retail frontage would be focused along a central pedestrian-oriented spine that extends to the Intermodal Station. Planned improvements to the creek trail would extend citywide connections between the Intermodal Station and the Alameda Creek Trail to the west.

Gateway

The Gateway subarea is envisioned to provide a new gateway to Union City with a variety of housing opportunities integrated with open space, park amenities, community agriculture, and enhanced facilities for bicyclists and pedestrians. Housing types allowed within the Gateway subarea include townhomes and apartments and mixed-use development north of Alvarado Niles Road. Proposed land uses within the Gateway subarea include Corridor Mixed Use Commercial, Commercial, Civic Facility, Residential (3-6 du/ac), Residential (10-17 du/ac), Residential (17-30 du/ac), and Open Space.

Open space may be provided as stand-alone public space or in coordination with future residential development, and could be developed on a range of scales, with a variety of orientations, facility types, and programming options such as playgrounds, community gardens or agricultural areas, recreational open space, passive open space, or other open space and ecological areas including potential connections, including bicycle and pedestrian connections, to the adjacent Arroyo Park and Quarry Lakes Regional Recreation Area.

Civic Center

In the Civic Center subarea, civic uses are envisioned to become more cohesively integrated with the larger Station District, with new pedestrian and bicycle connections, and potential long-term improvements to existing public facilities and amenities should grant or other funding becomes

available. Under the Proposed Plan no new residential or non-residential development is envisioned in this subarea. Existing uses are envisioned to remain including James Logan High School, New Haven Unified School District, Charles Kennedy Park, City Hall, the library, the skatepark, the Church of Jesus Christ of Latter-day Saints, the Parkside Apartments, and housing south of Alvarado-Niles Road. Proposed land uses within the Civic Center subarea include Civic Facility, Private Institutional, Residential (17-30 du/ac), and Open Space.

While the Civic Center's existing mix of land uses is envisioned to largely remain in place, there may be opportunities to improve connections, open space, civic facilities, and community programming within the Civic Center. Facility and programming improvements could include improved pedestrian and bicycle connections along the creek trail to the Intermodal Station and the Alameda Creek Trail, intersection improvements linking to the Marketplace and other destinations, community programming, and civic facility upgrades.

2.5 Project Buildout

This section provides a quantification of the future population, housing units, and jobs that could result from buildout of the Proposed Plan. Buildout projections have been developed in order to allow for an evaluation of the "reasonably foreseeable" direct and indirect impacts of the Proposed Plan, as required under CEQA. The reasonably foreseeable maximum development assumed for the EIR analysis (Table 2.5-1) attempts to project what might be feasible based on a number of factors, including but not limited to: available development sites; market demand for various uses; broader regional economic and market conditions; approved or planned projects in the vicinity; recent development and business investment in the vicinity; landowner intentions for their properties; and properties likely to change due to vacancy or absence of existing development. Development of most of the properties in the Planning Area would be implemented through the market-driven decisions that individual landowners make for their properties, and no development rights or entitlements are specifically conferred with the Proposed Plan. Thus, it is difficult to project the exact amount and location of future development with any precision. While the project buildout projection reflects a reasonably foreseeable maximum amount of development for the Plan Area through 2040, it is not intended as a development prediction or cap that would restrict development in any of the five subareas. Rather, the Plan allows for flexibility in the quantity and profile of future development within and between subareas, as long as it conforms to the policies and standards in the specific plan.

METHODOLOGY

In projecting the buildout for the 20-year planning horizon of the Proposed Plan, existing development, current development projects, and new development were considered. These were derived as follows.

Existing Development

The buildout estimated the existing amount of residential units and non-residential square feet "to stay" in 2040. Development identified under this category refers to existing development that is not assumed to redevelop by 2040. Existing development that is assumed to be redeveloped by 2040 is identified as "opportunity sites" or pipeline projects and is addressed below. Estimates of existing

development were derived from the City’s geographic information system (GIS) database as of 2020. The database contains detailed information about land use, the number of residential units on each parcel, and the amount of non-residential square feet on each parcel. Additional data as of September 2020 supplemented the City’s GIS data, including data from the Alameda County Assessor and data created by Dyett & Bhatia based on aerial imagery.

Pipeline Projects

Pipeline projects include those projects for which the City has received or approved a development application or which are otherwise considered reasonably foreseeable, but that have not yet been constructed. Pipeline projects considered in the projections were identified in consultation with City staff, and are identified below in Table 2.5-1. 100 percent of pipeline projects identified were assumed to be developed. Where possible, information on resulting dwelling units and jobs was obtained through project application materials or information from City staff. Where project-specific information was not available, job numbers were estimated based on square feet per employee assumptions from the Department of Finance.

Table 2.5-1: Pipeline Projects

<i>Project</i>	<i>Type</i>	<i>Description</i>
Station East Residential/ Mixed Use Project	Mixed-use	974 multi-family units (including 146 affordable units) 30,800 sf of retail space 26.5 acres 3-5 stories
Wildflower 2	Residential	443 residential units (1 BR, 2 BR, junior 1 BR, residential lofts, studios and live-work units) 5,088 sf of retail space 3.5 acres 5-8 stories
The Union 1.2@BART	Office	1.2 million square feet of Class A office and technology space under discussion as part of an ENA 6-8 story (3 buildings) Underground parking
Total		1,410 units, 31,000 retail and 1.2 million sq.ft. office

Source: Dyett & Bhatia, 2021; Union City, 2021.

New Development

Assumed reasonably foreseeable full development under the Proposed Plan is referred to as “buildout”. Net new development refers to development associated with implementation of the Proposed Plan land uses and does not include pipeline projects. Table 2.5-2 shows a detailed breakdown of the potential residential units, non-residential development, population, and jobs that could result from buildout of the Proposed Plan. This table also summarizes the total buildout within the Planning Area (the sum of existing development, planned development and net new development). This total represents development that could be expected in 2040 if the Specific Plan is implemented according to the Land Use Diagram (Figure 2.4-1) and land use designations. Buildout information is presented for the Station District as a whole, as well as for each of the subareas.

Assumed reasonably foreseeable development potential is calculated by applying average densities/intensities (floor area ratios) to land use designations in the Proposed Plan. Assumed development densities/intensities are largely consistent with the recently adopted General Plan with some modifications to the Marketplace Subarea parcel north of Alvarado-Niles Road in the Gateway subarea. Because site conditions and development standards (such as parking and open space requirements), market conditions and financial feasibility may prevent attainment of maximum allowable densities/intensities; assumed averages are used to represent a reasonably foreseeable estimate of development potential. 80 percent of opportunity sites, not including pipeline projects, were assumed to be developed under full buildout of the Proposed Plan.

Table 2.5-2: Planning Area Buildout Summary

	<i>Residential (units)</i>		<i>Non-Residential (square feet)</i>		
		<i>Total</i>	<i>Retail</i>	<i>Office</i>	<i>Industrial</i>
Existing	1,720	1,023,000	372,000	59,000	592,000
Net New Total	3,930	4,404,000	133,000	4,767,000	-496,000
Pipeline	1,410	1,231,000	31,000	1,200,000	-
Net Additional New	2,520	3,173,000	102,000	3,567,000	-496,000
Total (including existing)	5,650	5,427,000	505,000	4,826,000	96,000

Notes:

1. Schools, church, and City services not included in calculations.
2. Residential units rounded to nearest 10.
3. Non-residential square footage rounded to nearest 1,000.

Source: Dyett & Bhatia, 2021; Union City, 2020; Alameda County Assessor’s Office, 2020.

Projected Buildout Population

The buildout population takes into consideration the number of housing units in 2020, as well as new units projected in the Planning Area in 2040. The 2040 population projection assumes 2.50 persons per household and a 5.0 percent housing vacancy rate. Table 2.5-3 shows the projected

population at buildout of the Proposed Plan. Buildout would result in a projected 29 percent increase in population over 2020 conditions.

Table 2.5-3: Population Summary

	<i>Housing Units</i>	<i>Population</i>
Existing	1,720	5,000
Net New Total	3,930	9,400
Pipeline	1,410	3,400
Net Additional New	2,520	6,000
Total¹	5,650	14,400

Notes:

1. Based on household size of 2.5, 5 percent vacancy rate, and group quarters proportion from Department of Finance.
2. Housing rounded to the nearest 10. Population rounded to the nearest 100.

Source: Dyett & Bhatia, 2021; Department of Finance, 2020.

Jobs

The total number of future jobs was calculated based on jobs-per-square-foot assumptions for retail/service, office, industrial and institutional/public jobs. Table 2.5-4 shows the existing number of jobs in the Planning Area as of 2020 and the projected number of jobs in 2040. The proposed buildout would result in a nearly 700 percent increase in jobs over 2020 conditions.

Table 2.5-4: Jobs Summary

	<i>Total</i>	<i>Retail</i>	<i>Office</i>	<i>Industrial</i>
Existing	2,300	1,500	200	600
Net New	15,900	500	15,900	-500
Pipeline	4,100	100	4,000	-
Net Additional New	11,800	400	11,900	-500
2040 Total²	18,200	2,000	16,100	100

Notes:

1. Does not include sectors not calculated in this buildout (e.g. public/institutional).
2. Jobs rounded to nearest 100.

Source: Dyett & Bhatia, 2021; California Department of Finance, 2021.

2.6 Intended Uses of this EIR

This EIR is intended to review potential environmental impacts associated with the adoption and implementation of the Proposed Plan and determine corresponding mitigation measures, as necessary. This EIR is a program-level EIR and does not evaluate the project-specific impacts of individual developments or projects that may be allowed under the Proposed Plan. Pursuant to CEQA Section 15152, subsequent projects that are consistent with the Proposed Plan may “tier” from this EIR, relying on the environmental analysis and mitigation measures it contains in order to streamline environmental review or to focus on project-specific environmental effects not considered in this EIR, if any. Additionally, subsequent projects that satisfy the requirements of CEQA Section 15182 or 15183 may be eligible for streamlined environmental review.

This EIR serves as the environmental document for all discretionary actions associated with development under the Proposed Plan. This EIR is intended to be the primary reference document in the formulation and implementation of a Mitigation Monitoring and Reporting Program (MMRP) for the Proposed Plan. This EIR is also intended to assist other responsible agencies in making approvals that may result from the Proposed Plan. Federal, State, regional, and local government agencies that may have jurisdiction over development proposals in the Planning Area include:

- U.S. Army Corps of Engineers
- Federal Emergency Management Agency
- U.S. Fish and Wildlife Service
- California Department of Fish and Wildlife
- California Department of Transportation
- Metropolitan Transportation Commission
- Alameda County Transportation Commission
- Bay Area Rapid Transit District
- Union City Transit
- Alameda County Flood Control and Water Conservation District
- Alameda County Water District
- Alameda-Contra Costa Transit District
- Bay Area Air Quality Management District
- San Francisco Bay Regional Water Quality Control Board
- California Department of Toxic Substance Control

The Proposed Plan would require the following approvals and discretionary actions by Union City:

- **Planning Commission**
 - Recommendation to adopt the Proposed Plan
 - Recommendation to certify the EIR pursuant to CEQA
 - Recommendation regarding related ordinances, guidelines, programs, and other mechanisms for implementation of the Proposed Plan
- **City Council**
 - Adoption of the Proposed Plan
 - Certification of the EIR pursuant to CEQA
 - Adoption of ordinances, guidelines, programs, and other mechanisms for implementation of the Proposed Plan

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3.1 Aesthetics

This section evaluates the potential impacts to aesthetics that could arise from implementation of the proposed Station District Specific Plan. The analysis includes possible impacts to scenic resources, visual character, and visual quality, as well as those arising from the possible introduction of new sources of light and glare.

Environmental Setting

PHYSICAL SETTING

Most communities identify scenic resources as important visual assets that contribute to community identity. These resources can include landforms, trees, water features, and the built environment in so far as they enhance and define the visual character of a landscape. Scenic resources include natural and open spaces, as well as the built environment, particularly if certain architecture is of historic or artistic value.

Visual quality is defined as the overall visual impression or attractiveness of an area based on the scenic resources, both natural and built. The attributes of visual quality include variety, vividness, coherence, uniqueness, harmony, and pattern. Viewshed is a term used to describe a range of resources and their context that relate to what people can see in the immediate environment in terms of foreground, middle ground, and background distances.

Impacts to visual quality are perceived by different viewer types and to different degrees, depending on the viewer exposure. Different land uses, such as open space or commercial districts, derive value from the quality of their settings and, for the purposes of this study, include regionally designated scenic highways, city gateways, and surrounding land features. Viewers driving in the city might be exposed to the dramatic hills or the marshlands along the Bay as they travel. Their exposure would vary based on proximity and ability to see the viewshed. Scenic resources are of particular importance relative to the way viewer sensitivity may be impacted. This sensitivity is determined by two measures: exposure and awareness. Exposure is the relative proximity of potential viewers to a given project implemented under the Proposed Plan, and awareness indicates the attention and focus viewers bring to the experience of the area.

Existing Visual Conditions

The Planning Area is an urbanized area within Union City, developed primarily with single story commercial and industrial buildings and served by roadway and transit infrastructure. The surrounding natural setting of the rolling hills along the California Coast Ranges to the northeast of the Planning Area form an integral part of the community character. The undeveloped hillside area provides scenic views of San Francisco Bay limited in part by existing development, and streets within the Planning Area offer scenic views of the hills and open space from various vantage points.

Alameda Creek flows in a westerly direction through Niles Canyon toward San Francisco Bay, and a portion is located along the southwestern boundary of the Planning Area. While the majority is located outside of the Planning Area boundaries, Alameda Creek features the Alameda Creek Regional Trail with recreational access on each side. The trail is used heavily along its roughly 12 miles by cyclists, pedestrians, and equestrian users. Views of the natural settings are visible from the trail.

The overall urban structure of the Station District includes a mix of new and older development with a variety of building types and heights. The subareas also includes underutilized and vacant land. More recent development has included denser development that updates the community design in the city. Notably, the City has worked to upgrade the Bay Area Rapid Transit (BART) station and redevelop the surrounding area, referred to as the Core subarea. Projects include construction of multi-family housing, a pedestrian promenade, the East Plaza, and playgrounds with artistically designed play equipment and public art. A mix of development types characterizes much of the Planning Area and is described below by subarea, pictured on Figure 2.1-4.

The Core

The Core subarea is located in the center of the Planning Area and encompasses approximately 124 gross acres. The subarea includes the Union City Intermodal Station. As a regional transit connector, it plays an important role in the development of the Planning Area as a whole. Views available from the Core subarea include the hillside area, tree-lined streets (most significantly 11th Street, Berger Way, Station Way and Union Square), and Charles F. Kennedy Park.

The type of development found within the Core includes high-density residential apartment buildings, live/work spaces, townhomes, a few commercial/office buildings, a small amount of ground-floor retail space in residential mixed-use buildings, and several surface parking lots, many for BART riders and residents of the subarea. The Core has significant low- and mid-rise residential development, including Union Flats, Station Center, Avalon Bay, the Verandas, and Pacific Terrace. Although not yet constructed, several development projects have been proposed or approved in the Core, including “Windflower 2”, the 443-unit second phase of the Union Flats Apartments.

A prominent site within the Core is the 16-acre City-owned property known as the “Restoration Site,” one of the largest vacant parcels in the Planning Area. The site is currently vacant but zoned Research and Development Campus (RDC) for research-oriented office uses. The site consists of a capped, 22-foot tall mound that is underlain with the byproduct generated by the former Pacific States Steel Corporation, primarily slag. Although not currently developed, the site is visible from

surrounding developments such as the Pacific Terrace residential project and vantage points in the Core subarea along 11th Street. The Restoration Site will also be visible from the future Quarry Lakes Parkway, approved for development as part of a separate project.

Most public spaces within the Core are located on the east side of the BART tracks. A playground including a pyramid-shaped climbing structure and seating is complemented by the East Plaza across from it along 11th Street. The East Plaza has a large grassy open space with a sunken plaza, fountain and benches. The promenade between Union Flats and Station Center provides a linear east-west public space.

Station East

The Station East subarea is located east of the Core subarea and covers approximately 127 gross acres. Station East is bordered by the Niles Subdivision, Decoto Road, 7th Street and the future Quarry Lakes Parkway. The subarea consists of largely industrial land uses and vacant property. As such, the building scale is typically one to two stories tall and mostly consists of large industrial buildings. As the closest subarea to the hillside area, the Station East subarea offers relatively unobstructed views of the rolling hills, vacant open space, landscaping, and trees.

The Marketplace

The Marketplace subarea is located west of the Core subarea and covers approximately 45 gross acres. The Marketplace includes two large single-story shopping centers as well as a variety of single-story restaurants, gas stations, retail uses and surface parking lots along the arterials. Views available from the Marketplace subarea include the hillside area, trees, landscaping, and James Logan High School.

The Marketplace subarea is at the intersection of the two largest arterial roads in the Planning Area: Decoto Road and Alvarado-Niles Road. This subarea is largely made up of large blocks and surface parking lots, with limited and infrequent pedestrian, bike, or street connections through the blocks.

Gateway

The Gateway subarea is located in the southwest portion of the Planning Area and covers approximately 67 gross acres. The Gateway is bounded to the east by the BART tracks, open space to the west, the Purple Lotus Temple and Quarry Lakes Regional Recreation area to the south (located in Fremont) and a residential subdivision to the north. Most of the subarea is vacant or currently being used to grow row crops, with a few commercial uses, including RV storage, an auto repair shop and a few residences. All the existing buildings within this subarea have small footprints and the majority are single-story. The Gateway subarea also includes the Peterson House, and the Silva Farm. The Gateway subarea offers unobstructed views of rolling hills, agriculture, the Quarry Lakes Regional Recreation Area, the Peterson House and Silva Farm, landscaping, trees, and open space.

A distinctive visual feature of the Gateway subarea today is Arroyo Park, which is located at the western edge of the subarea and includes tennis courts, basketball courts, a playground, restrooms and large grassy fields. The park is relatively flat with views to the surrounding neighborhood.

Civic Center

The Civic Center subarea is located in the western portion of the Planning Area and covers approximately 107 gross acres. It includes key local government facilities including City Hall, the Union City Library, New Haven Unified School District offices, Ruggieri Senior Center, Kennedy Youth Center, and James Logan High School. Most of these buildings are one or two stories tall with large building footprints. This subarea also includes a small number of multifamily residential buildings and a religious facility. Views from the Civic Center subarea include the hillside area, tree-lined streets, landscaping, walking paths, a freshwater pond, James Logan High School, Charles F. Kennedy Park, and other open space areas.

The Civic Center includes two public parks: the William M. Cann Civic Center Park located adjacent to City Hall and Charles F. Kennedy Park located at the corner of Meyers Drive and Decoto Road. In addition to city offices, the Civic Center Park includes a playground, a freshwater pond, a skate park, picnic tables and walking paths. The other public park, Kennedy Park, includes the Kennedy Youth Center, a playground, a pavilion, large grassy areas, public restrooms, a basketball half-court, a public baseball field, and an amphitheater.

The Union City Skate Park and surrounding park facilities are relatively flat with the exception of the skating facilities. The Park has views to the surrounding neighborhood, the Civic Center facilities, the James Logan High School, the New Haven the Alameda Creek Trail. The Charles F. Kennedy Park is relatively flat with views to the hillside, the elevated BART tracks, the James Logan High School, the Parkside Apartments and the Station East subarea.

Scenic Corridors

There are no State-designated Scenic Highways in the Planning Area. State Route 84, also called Niles Canyon Road, between Interstate 680 and Highway 238 (Mission Boulevard) is a Caltrans-designated scenic highway (Caltrans 2011) but is located two miles outside of the Planning Area to the southeast.

While not designated officially by the City, Mission Boulevard is called out in the County General Plan as a potential scenic corridor. The hills to the east of the Planning Area are visible from this corridor, and in some places existing residential development is in the foreground and becomes a part of the view. Mission Boulevard runs through Union City parallel to the northeastern boundary of the Planning Area. Most of this route falls at least 1,000 feet outside of the Planning Area, but an approximately 500-foot section of Mission Boulevard is co-terminus with the Planning Area boundary at the intersection of 7th Street and Mission Boulevard near the Drigon Dog Park.

Light and Glare

Glare refers to the discomfort or impairment of vision experienced when a person is exposed to a direct or reflected source of light, causing objectionable brightness greater than that to which the eyes are adapted. Sources of glare in urban settings include sunlight reflected in the windows of buildings, including glass façades, and cars. Lighted signs on multi-story buildings are another source of light. Existing development and motor vehicles produce light and glare throughout Union

City. Primary existing sources of light are street lights, parking lot lights, field lights from the James Logan High School and automobile headlights.

REGULATORY SETTING

Federal

No existing federal regulations pertain to visual resources in Union City.

State

Caltrans

Caltrans defines a scenic highway as any freeway, highway, road, or other public right-of-way that traverses an area of exceptional scenic quality. Suitability for designation as a state scenic highway is based on vividness, intactness, and unity of the view, as described in Guidelines for Official Designation of Scenic highways (Caltrans 1995).

- Vividness is the extent to which the landscape is memorable. This is associated with the distinctiveness, diversity, and contrast of visual elements. A vivid landscape makes an immediate and lasting impression on the viewer.
- Intactness refers to the integrity of visual order in the landscape and the extent to which the natural landscape is free from visual intrusions, such as buildings, structures, equipment, and grading.
- Unity describes the extent to which development is sensitive to and visually harmonious with the natural landscape.

Caltrans has designated State Route 84 as a scenic highway (Caltrans 2018). A small portion of this coincides with the Union City boundary with Fremont but does not pass into Union City and is not located within the Planning Area.

Assembly Bill (AB) 2393

Approved in September 2018, AB 2393 added sections 29010.1 through 29010.12 to California's Public Utilities Code, affecting zoning requirements on existing BART-owned property within a half-mile of stations in Alameda, Contra Costa, and San Francisco counties. AB 2923 allows BART to enable transit-oriented development through land-use zoning on BART-owned property in collaboration with local jurisdictions. BART can set standards for residential density, building height, building mass (floor-area ratio), and parking for future development on these properties.

Union City General Plan

In the City's current 2040 General Plan, the City addresses visual character and quality and scenic resources primarily in the Community Design Element, Land Use Element, and Natural Resources Element. Goals place importance on orderly growth patterns with balanced types of uses, high-quality appearance of development, and a balance between open space, residential, and other land

uses. The Union City 2040 General Plan includes the following goals and policies related to aesthetics and visual character:

Goal CD-1: Ensure physical changes to the built environment enhance the city's form and help create a stronger sense of place.

Policy CD-1.1 Improve the City Image. The City shall strive to ensure that land use, transportation, and infrastructure decisions made through development approvals and capital improvement programs improve the visual quality of the built environment and help to positively shape the image of Union City.

Policy CD-1.2 Create Memorable Places. The City shall promote infill development and redevelopment projects that create memorable places throughout Union City through high quality architecture, pedestrian-friendly streetscape improvements, and thoughtfully-designed public spaces.

Policy CD-1.10 Encourage Compatible Development. The City shall encourage development that is visually and functionally compatible with the surrounding neighborhoods.

Policy CD 1.14 Protect Neighborhood Character. The City shall protect neighborhood character by encouraging single-family infill development that is compatible with existing single-family neighborhoods through appropriate scale, massing, design, and/or the use of increased setbacks.

Policy CD-1.16 Accessible Design. Single-story units (minimum 10 percent of total) shall be provided in all new single-family residential developments to break up building massing and provide accessible units.

Goal CD-2: Protect and enhance the visual and physical access to the hillsides, Baylands, and creeks.

Policy CD-2.1 Frame Visual Access to Hillside Views. As the city redevelops, the City shall use the layout of streets, blocks, and pedestrian corridors to provide visual access to hillside views.

Policy CD-2.2 Minimize Hillside Viewshed Impacts. The City shall minimize the viewshed impacts of development at the base of the hillsides.

Policy CD-2.5 Minimize Visual Impact on Baylands. The City shall ensure that new development near the Baylands respects its natural setting by maintaining visual harmony with the Baylands and using buffers such as pedestrian trails, linear parks, and landscaped rights-of-way.

Policy CD-2.8 Provide Visual Access to Creeks. Wherever practical, new development shall provide visual access to creeks.

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 workplaces.

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 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 development should be linked to existing streets and open spaces to improve connectivity between neighborhoods.

Goal RC-1: To provide for a continuous system of open spaces for the preservation, enhancement, and protection of open space land.

Policy RC-1.1 Provide for a Variety of Open Spaces. The City shall provide a variety of open spaces including open space for public use and enjoyment and for the protection of agricultural uses including grazing, wildlife habitats, and scenic vistas.

Policy RC-1.2 Protect Scenic Views. The City shall strive to protect areas of outstanding natural scenic qualities and outstanding views of natural or man-made significance, such as ridgelines and valley sides in the eastern hillsides and the critical wetland areas at the western end of the city through regulation, public acquisition, or dedication of development rights or scenic easements.

Policy RC-1.3 Observation Areas. The City shall encourage observation areas with outstanding vistas be provided in coordination with recreational trails.

Union City Municipal Code

The City's Municipal Code, specifically Title 18 - Zoning Ordinance, protects the character and stability of residential, business, and industrial areas in the City by encouraging orderly and beneficial development of these areas, which includes providing adequate light, air, privacy, and convenient access to property (Union City Municipal Code Title 18, Chapter 18.04). Other provisions throughout the zoning ordinances address development standards such as setbacks and building and site design.

The Municipal Code 18.30 regulates sign standards in residential, commercial, and industrial uses in the City. Lighted signs are required to conform to these standards.

Union City Design Guidelines for Blocks 2, 3, and 4

Adopted in 2007, the Design Guidelines address the design elements, such as setbacks, open space, and building massing, of over nine acres of mixed-use/residential development centrally located to the transit-oriented development surrounding the Union City Intermodal Station, identified as Blocks 2, 3, and 4 by the former Union City Redevelopment Agency.

Impact Analysis

For the purposes of this EIR, a significant impact would occur if implementation of the proposed Plan would:

- Criterion 1:** Have a substantial adverse effect on a scenic vista;
- Criterion 2:** Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
- Criterion 3:** In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings. (Public views are those that are experienced from publicly accessible vantage point). Or, in urbanized areas, conflict with applicable zoning and other regulations governing scenic quality; or
- Criterion 4:** Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

METHODOLOGY AND ASSUMPTIONS

Appreciation of aesthetics and visual resources is generally subjective by nature, and therefore the extent of visual impact associated with adoption and implementation of the Proposed Plan can be difficult to quantify. In addition, it is difficult to estimate the impact future development would have on scenic resources, since individual development projects can be designed to be compatible with and/or enhance the aesthetic quality of an area. As such, this analysis was based on the overall amount of new development at buildout of the Proposed Plan, the potential location of new development, and policies and standards in the Proposed Plan.

Relevant Proposed Plan Goals and Policies

Land Use

The Core

- P-LU-13 **Mix of Uses.** Allow for a mix of uses to support a healthy jobs / housing balance and provide for both a day and nighttime population within the area.
- P-LU-14 **Integrate New Development.** Ensure land use patterns and design of new development projects are compatible with recent developments, such as Union Flats and Station Center, in terms of scale and massing.

Station East

- P-LU-18 **New Connections.** Work with developers to provide a robust circulation system for all users including the provision of new streets with bicycle facilities and wide

sidewalks, paseos, trails, including greenways where appropriate, and a pedestrian/bicycle connection over the Niles Subdivision to help foster connections, open spaces, and direct access to the Intermodal Station.

- P-LU-19 **Green Spaces.** Encourage the development of a network of new and expanded park, plaza and open spaces throughout the Station East area.

The Marketplace

- P-LU-21 **Walkable Destination.** Create a vibrant, walkable destination with community-serving and specialty-retail, dining, and entertainment uses, new streets, and plazas with a complementary mix of residential, office, and other uses.

- P-LU-23 **Mix of Uses.** Ensure that new development contributes to a vibrant, walkable, mixed use area, which supports the following:

- A mix of small, local commercial businesses and large anchor stores, which, in part, meet the needs of local residents;
- Development of an indoor Public Market, which supports a variety of commercial uses and provides an opportunity for smaller, artisan businesses;
- Residential and office uses occupying buildings above the ground floor;
- Parking accommodated in a more innovative way. (e.g. parking structures, smaller parking lots distributed through the area);
- Buildings designed to create a pedestrian-scale and ambiance suitable for walking.

Gateway

- P-LU-25 **Mix of Housing Types.** Support a mix of housing types including an “agri-hood” concept, where housing and on-site community facilities are integrated with agricultural uses, such as community gardens, that could be public or private.

Civic Center

- P-LU-29 **Focus on Improved Connections,** Encourage existing civic uses to become more cohesively integrated with the greater Station District, with new pedestrian and bicycle connections.

- P-LU-30 **Public Facilities.** Seek funding to enhance existing public open spaces and facilities.

Urban Design

- G-UD-1 **Unified Streetscape.** Establish a unified streetscape image for the Station District.

- G-UD-2 **Pedestrian Orientation.** Support the development of a safer and more aesthetically pleasing pedestrian realm while preserving automobile capacity and

access through pedestrian-oriented design features such as wider sidewalks and bulb-outs that incorporate street trees and cleanwater features. Design streets to be pedestrian-oriented and scaled, with ample landscaping. Provide tree wells that are consistent with City standards.

- G-UD-12 **Cohesive Wayfinding Strategy.** Develop a cohesive signage system that will orient people to buildings, parking lots and structures, and clear directions to the Intermodal station.
- G-UD-15 **Public Art.** Integrate public art into public spaces to create a sense of place by reinforcing landmarks and creating a sense of community identity.
- P-UD-31 **Bulk and Massing.** Include architectural design features that create visual interest and avoid a large-scale, bulky or “boxlike” appearance. Different ways that this requirement may be met include but are not limited to those listed below.
- P-UD-34 **Façade Articulation.** Provide pedestrian-scaled façade articulation such as vertical elements, horizontal banding, and individual storefront design (when applicable) at the ground level to enhance approachability and pedestrian comfort.
- P-UD-42 **Public Art Locations.** Locate public art to mark key paths of movement, to highlight major entries and to anchor key spaces, and interstitial places, weaving together zones where different kinds of uses and public spaces overlap.
- P-UD-43 **Public Art Streetscape Elements.** Incorporate art into streetscape elements such as crosswalks, bus stops, light poles, bicycle rack.

IMPACTS

Impact 3.1-1 Development under the Proposed Plan would not have a substantial adverse effect on a scenic vista. (Significant and Unavoidable)

The 2040 General Plan identifies several scenic vistas in Union City, with the closest vistas to the Planning Area being the foothills of the Coastal Range (i.e., hillside area) which frame the eastern edge of the city and creek corridors such as the Alameda Creek. Development under the Proposed Plan, including construction of multi-story buildings, could obstruct views of the hillside area. The Proposed Plan maintains the open space designations in the 2040 General Plan. The Proposed Plan would not facilitate new development in the hillside area, which is located outside of Planning Area boundaries. Development facilitated in the Planning Area would be in the existing urbanized area and the largely undeveloped Gateway subarea, and new structures could be oriented or scaled in such a way that views of the hillside area are blocked from specific locations in the Planning Area.

New development anticipated under the Proposed Plan would primarily be focused on existing vacant and underutilized lots throughout the Planning Area to efficiently accommodate new employment and housing growth. The majority of new housing growth would be developed as multi-family residential ranging from three to eight stories. Along major arterials within the Station

East, Core, and Marketplace subareas, mixed use residential development would be of a similar height but would also include active ground floor uses. It is anticipated that new industrial/commercial development would be more intensive and include flex space with high ceilings that can accommodate a variety of uses and multi-story commercial buildings with office, research and development, and lab space. The Core subarea designations allow buildings up to 160 feet in height, which have the potential to block currently unobstructed scenic views of the hillside area in areas of existing lower-intensity development within the Planning Area. New development in the urbanized area may also be visible from the ridges in the hillside area or from isolated locations in other open space areas of Union City outside of the Planning Area. As noted in the 2040 General Plan EIR, such obstruction of scenic vistas would constitute a significant impact. Development in the Planning Area would be similar to the General Plan with the addition of height and density in the Marketplace subarea. The Plan is also consistent with the PDA planning objectives. The Specific Plan and Zoning Ordinance incorporates policies to integrate new development with minimal visual impact. The higher intensity of development in the Planning Area would need to comply with the policies proposed as part of the Proposed Plan Urban Design Chapter and accompanying zoning amendments. For example, policies P-UD-31 and P-UD-34 require variation in wall planes, heights, and roofing, will ensure that new development incorporates elements that enhance visual interest and avoid a bulky, imposing appearance to the extent feasible. The policies in the Proposed Plan will reduce but not eliminate impacts.

As a PDA, the Planning Area has been identified for focused growth through high-density compact development to increase accessibility to transit. Additionally, per Assembly Bill 2923, development on BART-owned properties within a half-mile of the Union City BART Station are subject to minimum zoning requirements for height, density, parking, and floor area ratio to encourage transit-oriented development. The majority of the Planning Area is within a half-mile of the Union City BART Station, and the largest landowners within the Core subarea are the City of Union City and BART, who collectively own 42.3 of the subarea's total 124 acres. The Proposed Plan designates all BART-owned surface parking lots surrounding the BART station as Station Mixed Use Commercial, which allows construction of buildings ranging in height from three stories to 160 feet, the highest in the Planning Area. Therefore, proposed development in the Core subarea would be consistent with minimum zoning requirements associated with Assembly Bill 2923. The Union City Design Guidelines for Blocks 2, 3, and 4 and the Intermodal Station District and Transit Facility Plan, which address design for the 50-acre area of transit-oriented development surrounding the Union City Intermodal Station, recommend that development immediately around the BART station be seven or more stories in height and that buildings further away from the BART station should decrease in height to meet the scale of the existing neighborhoods. The Station Mixed Use Commercial designation is the only designation to allow heights of up to 160 feet; all other designations establish a maximum height of 100 feet or less. Therefore, proposed development under the Proposed Plan, particularly within the Core subarea that would see construction of the tallest buildings within the Planning Area, would be consistent with the Design Guidelines and Transit Facility Plan and would reflect the City's goals to accommodate higher-intensity development while minimizing impacts to scenic vistas.

The 2040 General Plan Policy CD-2.1 requires the City to use the layout of streets, blocks, and pedestrian corridors to provide visual access to hillside views, therefore minimizing impacts to scenic vistas as it redevelops, which has been accomplished in the Core subarea with Berger Way, Galliano Way and the Promenade functioning as view corridors. Additionally, the 2040 General

Plan Policy CD-2.2 would minimize the viewshed impacts of development at the base of the hillsides, reducing any potential cumulative effects in combination with development pursuant to the Proposed Plan. Several goals and policies in the 2040 General Plan Resource Conservation Element would also provide protection of a variety of open space areas in the City and scenic views through regulation, public acquisition, dedication of development rights or scenic easements, and provision of observation areas (General Plan Goal RC-1, Policies RC-1.1, RC-1.2, RC-1.3).

These 2040 General Plan goals and policies would minimize visual intrusion and assist in reducing potential obstructions of view of the scenic vistas associated with the open space and hillside areas of the City. Nevertheless, the potential exists for development in the Planning Area to obstruct views of the hillside area due the higher density / intensity development allowed, and while this new development would be consistent with the Planning Area's designation as a Priority Development Area (PDA) and the standards that govern it, as noted in the 2040 General Plan EIR, views of the foothills of the Coastal Range (i.e., hillside area) which frame the eastern edge of the city are considered scenic vistas and the development of buildings up to 160 feet in height in the Core subarea would obstruct view of the hillside area. While policies in the 2040 General Plan and the Proposed Plan together with associated zoning standards would reduce these impacts to the maximum extent practicable, there are no mitigation measures available to avoid impacts to scenic vistas entirely. As such, this impact would remain significant and unavoidable.

Mitigation Measures

No feasible mitigation available.

Impact 3.1-2 Development under the Proposed Plan would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. (*Less than Significant*)

As discussed above, there are no State-designated Scenic Highways within the Planning Area. State Route 84 is designated as a Scenic Highway between Interstate 680 and Highway 238 but is located two miles outside of the Planning Area to the southeast. Therefore, the Proposed Plan would have no impacts on scenic resources within a state scenic highway.

Mitigation Measures

None required.

Impact 3.1-3 Development under the Proposed Plan would not substantially degrade the existing visual character or quality of public views of the site and its surroundings in non-urbanized areas or conflict with applicable zoning and other regulations governing scenic quality in urbanized areas. (*Less than Significant*)

The Planning Area is an urbanized area within Union City, containing a mix of new and older development with a variety of building types and heights, as well as areas of underutilized and vacant land. The City has worked to upgrade the Bay Area Rapid Transit (BART) Station and

facilitate redevelopment in the surrounding area to incorporate denser multi-family housing and more intense commercial uses in proximity to transit, together with public amenities such as parks, plazas, pedestrian promenades, playgrounds, and public art. As expressed in the 2040 General Plan and the Proposed Plan's vision statement, the community envisions redevelopment and intensification of uses around the Union City Intermodal Station to foster a dynamic, transit-oriented "complete community." The guiding principles of the Proposed Plan are also intended to promote high quality building and landscape design that reflects the Planning Area's unique contemporary identity, with unified streetscapes, signage and urban design elements that foster identify, and a sense of place. New development allowed by the Proposed Plan would introduce visual changes in some areas, including the addition of new higher density development signage, parking facilities, landscaping, and roadway improvements. Development would primarily involve reuse of existing urbanized lands and infill development on vacant parcels, although there the Proposed Plan would allow for more intense urban development on agricultural land in the Gateway subarea. The Proposed Plan would change the nature of some land uses to include more dense and diverse types of land uses including residential, office and industrial development, and the character of commercial development to adapt the style of new construction to a street-fronted and pedestrian-oriented design model. Infill development or redevelopment could have different height, bulk, massing, and other visual characteristics than existing development, and by default, would alter the existing visual character of the site and surroundings. Due to the presence of commercial, public, and residential uses, the Planning Area, as a whole, maintains an urban visual character and the proposed development would not differ substantially or detract from the existing visual quality. The Proposed Plan retains the overall land use framework and assumed development densities/intensities of the 2040 General Plan, with some targeted changes to promote economic development and appropriate residential and commercial infill development, including in the Marketplace subarea parcel north of Alvarado-Niles Road in the Gateway subarea.

Future infill development and redevelopment projects envisioned by the Proposed Plan are intended to upgrade the appearance of land uses and public amenities across the city while contributing to a vibrant, walkable, mixed-use area (policies P-LU-7, P-LU-18, P-LU-19, P-LU-25). Proposed Plan Land Use policies P-LU-8, P-LU-19, and P-LU-23 would ensure that new development is consistent with existing uses in the Planning Area and cohesively integrated with the open space and circulation network to encourage connections between each subarea. The higher intensity of development in the Planning Area would need to comply with the policies proposed as part of the Proposed Plan Urban Design Chapter and accompanying zoning amendments. For example, Policies P-UD-31 and P-UD-34 which require variation in wall planes, heights, and roofing, will ensure that new development incorporates elements that enhance visual interest and avoid a bulky, imposing appearance to the extent feasible. In support of Goal G-UD-15, Policies P-UD-42 and P-UD-43 would require integration of public art into public spaces to connect zones where different uses overlap and create a sense of community identity. Consistency with these design standards would support the Proposed Plan's goal of providing unified, high-quality design that creates a sense of place, therefore improving the visual character of the Planning Area. Detailed zoning regulations established in the Proposed Plan—including permitted and conditional uses, and development regulations—including provisions related to building height, bulk, and massing—have been developed and directly integrated within the Union City Municipal Code, Chapter 18: Zoning. Therefore, development under the Proposed Plan would be consistent with applicable regulations governing scenic quality in the urbanized area, including the Zoning Ordinance and General Plan. With adherence to existing and proposed policies and standards,

development under the Proposed Plan would improve rather than substantially degrade the existing visual character of the site, and this impact would be less than significant.

Mitigation Measures

None required.

Impact 3.1-4 Development under the Proposed Plan would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. (*Less than Significant*)

New development facilitated under the Proposed Plan would introduce new sources of light within the Planning Area. Potential sources of new nighttime light from new development include light spillover from the windows of residences and businesses, outdoor security lighting, lighted signs, streetlights, and lighting for new plazas, parks, and paseos. New development also could produce glare from sunlight reflecting off windows, reflective surfaces, and unshielded equipment. Motor vehicle windows, parked or passing by, or vehicle headlights at night form another potential source of light and glare.

As discussed previously, the Planning Area is an urbanized area within Union City, where existing lights and surfaces with glare are common. Therefore, the additional light and glare created under the Proposed Plan would not illuminate currently dark or unlit areas without reflective or glaring surfaces. Further, the Proposed Plan would not result in substantial new adverse light pollution within the Planning Area. An example of this is requiring lighting that is shielded and down-directed to minimize off-site glare. Lighted signs and safety lighting in commercial and industrial areas would need to conform to City-prescribed lighting regulations provided in Section 18.30.070 of the Union City Municipal Code. Large development projects would require a lighting plan as part of the planning approval process in keeping with design standards that indicate the standard positioning of lights on buildings and in parking areas. New development would include wrapped and podium parking to replace surface parking, which would help to minimize glare from car windshields. Compliance with California Building Code CBC standards would also minimize glare from sunlight reflecting off building windows.

As such, new sources would not substantially increase the amount of nighttime lighting or glare in the already urbanized City. Impacts associated with light and glare would be less than significant.

Mitigation Measures

None required.

3.2 Air Quality

This section describes the environmental and regulatory setting for air quality. It also describes impacts related to air quality that would result from implementation of the Union City Station District Specific Plan (Proposed Plan) and mitigation for significant impacts where feasible and appropriate. This section has been prepared using methods and assumptions recommended in the air quality impact assessment guidelines of the Bay Area Air Quality Management District (BAAQMD). The section describes existing air quality in the region, the Proposed Plan's contribution to localized concentrations of carbon monoxide (CO), impacts from vehicular emissions that have regional effects, and the exposure of sensitive receptors to Plan-generated toxic air contaminants (TACs). Appendix B includes a detailed summary of the data used in this analysis.

There were 18 responses to the Notice of Preparation (NOP) regarding topics covered in this section. Comments from individuals associated with the Purple Lotus Temple were concerned with dust and overall air pollution. A comment from another individual was concerned with air pollution generated by traffic. Other comments from an individual were concerned with spare the air days, air pollution, and asthma. These comments are addressed in the Impacts section and incorporated into the following analysis.

Environmental Setting

PHYSICAL SETTING

The Planning Area is located in Union City, 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.

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 for the Planning Area is located in the southwestern Alameda County portion of the SFBAAB.¹

This subregion encompasses the southeast side of the San Francisco Bay (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 has minimal topography.

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 the 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 (mph), while farther inland they average 6 mph.

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. Climate data from the Newark monitoring station, located approximately 4 miles southwest of the Planning Area, was used to characterize varying climate conditions near the project area. The average summer (August) high and low temperatures were 77.4 degrees Fahrenheit (°F) and 58.4°F, respectively. The average winter (January) high and low temperatures were 57.9°F and 42.6°F, respectively. Rainfall varies widely from year to year, with an annual average of 15.12 inches.²

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,

¹ Ibid.

² Western Regional Climate Center. 2021. Newark Monitoring Station (046144). Available: <https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca6144>. Accessed: July 1, 2021.

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.

CRITERIA AIR POLLUTANTS

The federal and state governments have established ambient air quality standards (AAQA) for six criteria pollutants. Ozone is considered a regional pollutant because its precursors affect air quality on a regional scale. Pollutants such as CO, nitrogen dioxide (NO₂), sulfur dioxide (SO₂), 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 Proposed Plan are ozone precursors (i.e., nitrogen oxides (NO_x) and reactive organic gases [ROGs]), CO, and PM.^{3,4,5}

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.

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

Ozone

Ozone, or smog, is a photochemical oxidant that is formed when ROG and NO_x (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_x are nitric oxide (NO) and NO₂. NO is a colorless, odorless gas that forms from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. NO₂ 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_x 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

³ As discussed above, there are also ambient air quality standards for SO₂, 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.

⁴ Most emissions of NO_x are in the form of nitric oxide (NO). Conversion to NO₂ occurs in the atmosphere as pollutants disperse downwind. Accordingly, NO₂ is not considered a local pollutant of concern for the project and is not evaluated further.

⁵ Reşitoğlu, Ibrahim A. 2018. *NO_x 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: July 1, 2021.

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.⁶ 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 (ppb) 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 ppb.⁷ The average background level of ozone in the Bay Area is approximately 45 ppb.⁸

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

Carbon monoxide is a colorless, odorless, toxic gas produced by incomplete combustion of carbon substances, such as gasoline or diesel fuel. In the 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 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.⁹

Particulate Matter

PM consists of finely divided solids or liquids, such as soot, dust, aerosols, fumes, and mists. Two forms of fine particulates are now recognized: respirable coarse particles with an aerodynamic diameter of 10 micrometers or less (PM₁₀), and respirable fine particles with an aerodynamic diameter of 2.5 micrometers or less (PM_{2.5}). Particulate discharge into the atmosphere results

⁶ U.S. Environmental Protection Agency. 2021. *Ground-level Ozone Basics*. Last updated May 5. Available: <https://www.epa.gov/ground-level-ozone-pollution/ground-level-ozone-basics#wwh>. Accessed: July 1, 2021.

⁷ 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: July 1, 2021.

⁸ Bay Area Air Quality Management District. 2017. *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: July 1, 2021.

⁹ California Air Resources Board. 2021. *Carbon Monoxide & Health*. Available: <https://ww2.arb.ca.gov/resources/carbon-monoxide-and-health>. Accessed: July 1, 2021.

primarily from industrial, agricultural, construction, and transportation activities. However, wind on arid landscapes also contributes substantially to local particulate loading. PM is considered both a local and a regional pollutant.

Particulate pollution can be transported over long distances and may adversely affect humans, especially 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. Other symptoms of exposure may include nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms. Depending on composition, both PM₁₀ and PM_{2.5} can also affect water quality and acidity, deplete soil nutrients, damage sensitive forests and crops, affect ecosystem diversity, and contribute to acid rain.¹⁰

OTHER CRITERIA POLLUTANTS

The California Air Resources Board (CARB) has also established the California Ambient Air Quality Standards (CAAQS) for hydrogen sulfide (H₂S), sulfates, vinyl chloride, and visibility-reducing particles. These pollutants are not addressed by federal standards. Below is a summary of the pollutants and a description of their physical properties, health and other effects, sources, and the extent of the problems.

Hydrogen Sulfide

Hydrogen sulfide (H₂S) emissions often are associated with geothermal activity, oil and gas production, refining, sewage treatment plants, and confined animal feeding operations. H₂S in the atmosphere will likely oxidize into SO₂, which can lead to acid rain. At low concentrations, H₂S may cause irritation to the eyes, mucous membranes, and respiratory system, dizziness, and headaches. In high concentrations (800 parts per million can cause death), H₂S is extremely hazardous, especially in enclosed spaces. The Occupational Safety and Health Administration has the primary responsibility for regulating workplace exposure to H₂S.

Sulfates

Sulfates are another particulate product that results from the combustion of sulfur-containing fossil fuels; however, the majority of ambient sulfates is formed in the atmosphere. When SO₂ comes in contact with oxygen it precipitates out into sulfates. The health effects associated with SO₂ and sulfates more commonly known as sulfur oxides (SO_x) include respiratory illnesses, decreased pulmonary disease resistance, and aggravation of cardiovascular diseases. When acidic pollutants and particulates are also present, SO₂ tends to have an even more toxic effect.

Increased PM derived from SO₂ emissions also contributes to impaired visibility. In addition to particulates, sulfur trioxide and sulfate ion are precursors to acid rain. SO_x and NO_x are the leading precursors to acid rain, which can lead to corrosion of human-made structures and cause acidification of water bodies.

¹⁰ U.S. Environmental Protection Agency. 2021. *Health and Environmental Effects of Particulate Matter (PM)*. Last updated May 26. Available: <https://www.epa.gov/pm-pollution/health-and-environmental-effects-particulate-matter-pm>. Accessed: July 1, 2021.

Visibility-Reducing Particles

Visibility-reducing particles consist of PM generated from a variety of natural and manmade sources and vary greatly in shape, size, and chemical composition. Some haze-causing particles (e.g., windblown dust and soot) are directly emitted into the air, whereas others are formed in the air from the chemical transformation of gaseous pollutants (e.g., sulfates, nitrates, organic carbon particles), which are the major constituents of fine PM. These fine particles, caused largely by the combustion of fuel, can travel hundreds of miles and cause visibility impairment. California has been labeled unclassified for visibility—CARB has not established a method for measuring visibility with the precision and accuracy needed to designate areas attainment or nonattainment.

Vinyl Chloride

Vinyl chloride is a colorless, sweet-smelling gas at ambient temperature. Landfills, publicly owned treatment works, and polyvinyl chloride production are the major identified sources of vinyl chloride emissions in California. Polyvinyl chloride can be fabricated into several products, such as pipes, pipe fittings, and plastics. In humans, epidemiological studies of occupationally exposed workers have linked vinyl chloride exposure to development of liver angiosarcoma, a rare cancer, and have suggested a relationship between exposure and lung and brain cancers.

TOXIC AIR CONTAMINANTS

Although ambient air quality standards have been established for criteria pollutants, no ambient standards exist for 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, CARB 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 Proposed Plan 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 BAAQMD has found that of all controlled TACs, emissions of DPM are responsible for about 82 percent of the total ambient cancer risk.¹¹ Short-term exposure to DPM can cause acute irritation (e.g., eye, throat, and bronchial), neurophysiological symptoms (e.g., lightheadedness and nausea), and

¹¹ Bay Area Air Quality Management District. 2017. *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: July 1, 2021.

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.”¹²

ODORS

The BAAQMD’s thresholds for odors are qualitative and based on BAAQMD’s Regulation 7, Odorous Substances. This rule places general limitations on odorous substances and specific emission limitations on certain odorous compounds. Odors are also regulated under BAAQMD Regulation 1, Rule 1-301, Public Nuisance, which states that no person shall discharge from any source whatsoever quantities of air contaminants or other materials that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or the public; endanger the comfort, repose, health, or safety of any such persons or the public; or cause, or have a natural tendency to cause, injury or damage to businesses or property. Under BAAQMD’s Rule 1-301, a facility that receives three or more violation notices within a 30-day period can be declared a public nuisance. The BAAQMD has established odor screening thresholds for land uses that have the potential to generate substantial odor complaints, including wastewater treatment plants, landfills or transfer stations, composting facilities, confined animal facilities, food manufacturing, and chemical plants.¹³

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 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 Planning Area is the Hayward-La Mesa Drive, located approximately four miles northwest of the Planning Area. 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 representative monitoring station in the county located approximately 13 miles northwest of the Planning Area, was reviewed for the remaining pollutants.¹⁴ Table 3.2-1 summarizes data for criteria air pollutant levels from the Hayward-La Mesa Drive and Oakland-9925 International Boulevard monitoring stations from 2017 to 2019). Table 3.2-1 shows the monitoring stations were in violation of federal and state ozone standards in 2017 and 2019 and were in violation of the federal PM_{2.5} standard in 2017 and 2018. Federal and state standards for other pollutants (except for PM₁₀ where no data were available) were not exceeded. These existing ozone and PM_{2.5} violations of ambient air quality standards indicate that certain individuals

¹² 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. Accessed: July 1, 2021.

¹³ Bay Area Air Quality Management District. 2017. *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. Accessed: July 1, 2021.

¹⁴ The monitoring station in Pleasanton at Owens Court is slightly closer to the Planning area; however, that monitoring station is located in a different portion of the SFBAAB (the Livermore Valley) and air quality near that station is governed by different topography and meteorology than southwestern Alameda County.

exposed to this pollutant may experience certain health effects, including increased incidence of cardiovascular and respiratory ailments.

Table 3.2-1: Ambient Air Quality Data at the Hayward-La Mesa Drive and Oakland-9925 International Boulevard Monitoring Stations (2017-2019)

Pollutant Standards	2017	2018	2019
Ozone (O₃)			
Maximum 1-hour concentration (ppm)	0.139	0.075	0.106
Maximum 8-hour concentration (ppm)	0.110	0.066	0.085
Number of days standard exceeded^a			
CAAQS 1-hour (> 0.09 ppm)	2	0	0
CAAQS 8-hour (> 0.070 ppm)	3	0	2
NAAQS 8-hour (> 0.070 ppm)	3	0	2
Carbon Monoxide (CO)			
Maximum 1-hour concentration (ppm)	3.2	3.3	3.3
Maximum 8-hour concentration (ppm)	2.2	2.4	1.1
Number of days standard exceeded^a			
NAAQS 1-hour (≥ 35.0 ppm)	0	0	0
CAAQS 1-hour (≥ 20.0 ppm)	0	0	0
NAAQS 8-hour (≥ 9.0 ppm)	0	0	0
CAAQS 8-hour (≥ 9.0 ppm)	0	0	0
Nitrogen Dioxide (NO₂)			
State maximum 1-hour concentration (ppm)	0.064	0.072	0.061
State second-highest 1-hour concentration (ppm)	0.058	0.071	0.053
Annual average concentration (ppm)	0.010	0.010	0.008
Number of days standard exceeded^a			
CAAQS 1-hour (0.180 ppm)	0	0	0
Particulate Matter (PM₁₀)			
No data available.			
Fine Particulate Matter (PM_{2.5})			
National ^e maximum 24-hour concentration (µg/m ³)	70.2	172.1	24.7
National ^e second-highest 24-hour concentration (µg/m ³)	57.6	152.3	20.9
State ^f maximum 24-hour concentration (µg/m ³)	70.2	172.1	24.7
State ^f second-highest 24-hour concentration (µg/m ³)	57.6	152.3	20.9
National annual average concentration (µg/m ³)	9.3	11.7	6.7
State annual average concentration (µg/m ³)	9.4	11.8	6.7
Measured number of days standard exceeded^a			
NAAQS 24-hour (> 35 µg/m ³)	7	13	0

Sources:

California Air Resources Board 2020. *iADAM: Air Quality Data Statistics – Top 4 Summary (2017-2019)*, Alameda County, Hayward-La Mesa and Oakland-9925 International Boulevard). Available:

<https://www.arb.ca.gov/adam/topfour/topfour1.php>. Accessed: July 1, 2021.

U.S. Environmental Protection Agency. 2021. *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: July 1, 2021.

Notes:

- ^a An exceedance is not necessarily related to a violation of the standard.
- ^b National statistics are based on standard conditions data. In addition, national statistics are based on samplers using federal reference or equivalent methods.
- ^c State statistics are based on approved local samplers and local conditions data.
- ^d State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.
- ^e National statistics are based on samplers using federal reference or equivalent methods.
- ^f State statistics are based on local approved samplers.

ppm = parts per million; NAAQS = National Ambient Air Quality Standards; CAAQS = California Ambient Air Quality Standards; $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter, mg/m^3 = milligrams per cubic meter, – = no data available

Existing TAC Sources and Health Risks

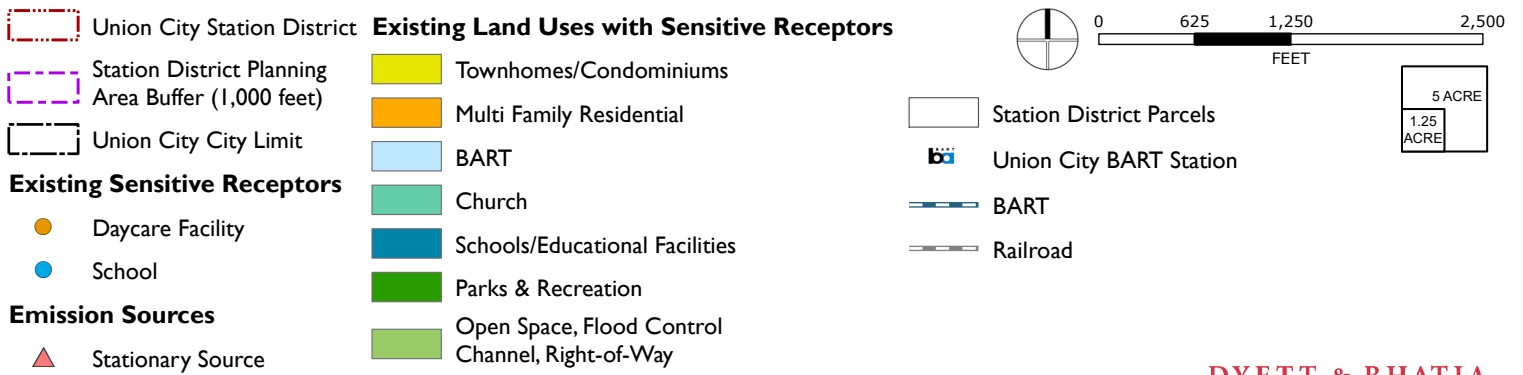
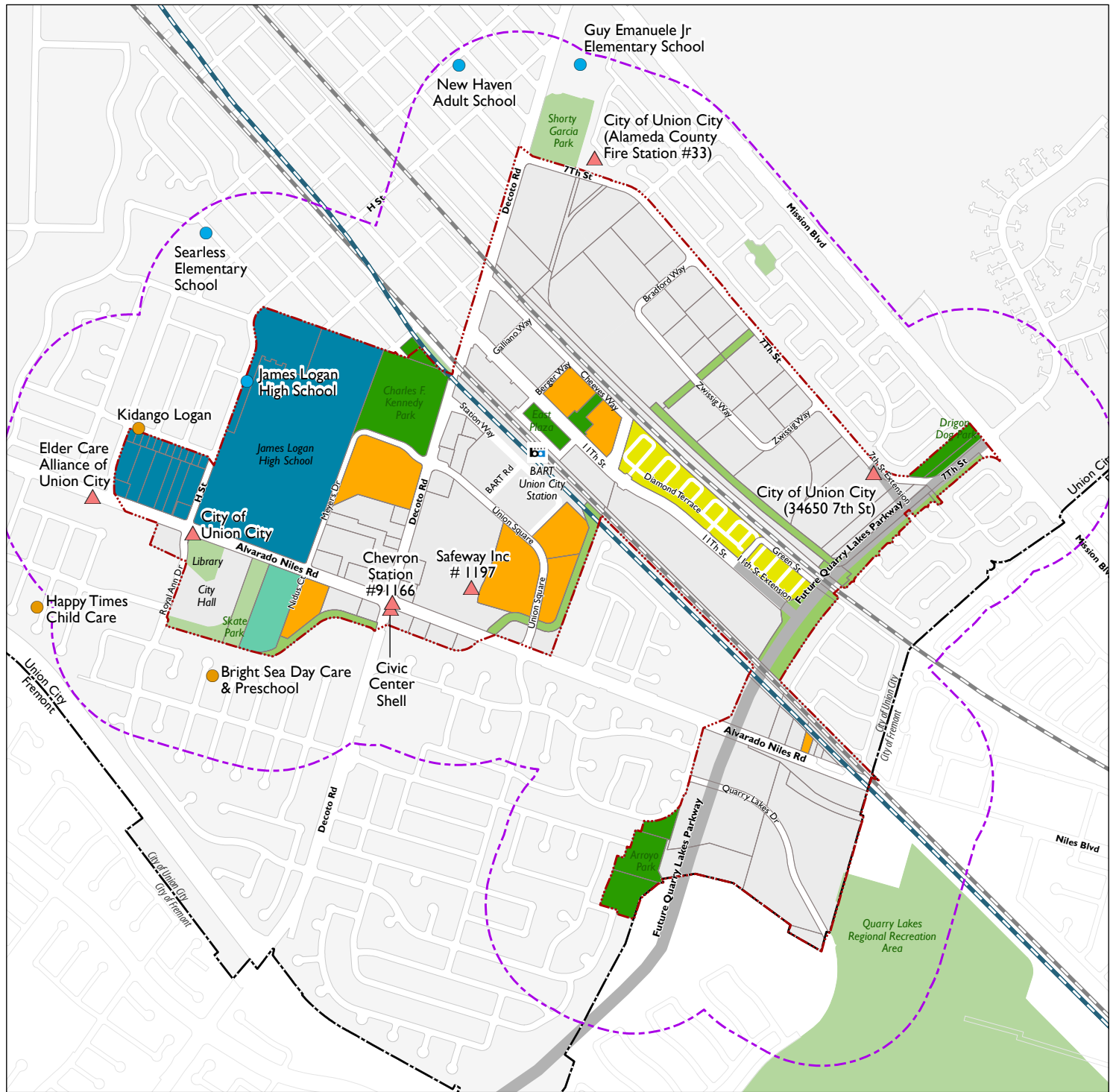
The BAAQMD maintains an inventory of health risks associated with all permitted stationary sources within the SFBAAB. The inventory was last updated in 2020 and is publicly available online. Table 3.2-2 provides a summary of the stationary sources within 1,000 feet of the Planning Area. The stationary sources consist of generators and gasoline dispensing facilities. Figure 3.2-1 shows the existing stationary emission sources within the Planning Area or within approximately 1,000 feet of the Planning Area.

Table 3.2-2: Existing Stationary Sources within the Planning Area or within approximately 1,000 feet of the Planning Area

Facility Names/Source Type	
● Airgas USA, LLC/Spray Booth	● Civic Center Shell/Gas Dispensing Facility
● Avalon Bay/Generator	● Elder Care Alliance of Union City/Generator
● Chevron Station #91166/Gas Dispensing Facility	● Masonic Homes of California/Generators & Boilers
● City of Union City (City Hall)/Generator	● MPP Union City a Division of Amcor Packaging Distribution/Industrial-sized Paper Trimmers and Printers
● City of Union City (Seventh Street)/Generator	● Safeway, Inc. #1197/Generator
● City of Union City Maintenance Facility/Gas Dispensing Facility	

Source: Bay Area Air Quality Management District. 2020. *Permitted Sources Risk and Hazards Map*. March 18. Available: <https://baaqmd.maps.arcgis.com/apps/webappviewer/index.html?id=2387ae674013413f987b1071715daa65>. Accessed; July 1, 2021.

Figure 3.2-1 Existing Air Quality Sensitive Receptors and Emissions Sources in the Vicinity of the Planning Area



Source: City of Union City, 2019; Alameda County GIS, 2019; Google Earth; Bay Area Air Quality Management District

Aside from stationary sources, emissions of TACs in and around the Planning Area are also generated from mobile sources. The 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.¹⁵ Existing roadways located in the immediate proximity of the Planning Area (within 1,000 feet) that have ADT greater than 10,000 vehicles include Decoto Road and Alvarado-Niles Road. In addition, there are Union Pacific Railroad and Bay Area Rapid Transit (BART) tracks located in the center of the Planning Area. Although trains on the Southern Pacific tracks are diesel-powered, trains on the BART tracks are electric-powered and do not emit DPM or other exhaust pollutants. Figure 3.2-1 shows the existing road and rail sources within 1,000 feet of the Planning Area.

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.

- 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 3.2-3 summarizes the attainment status of Alameda County.

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 the 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.¹⁶

The Planning Area is generally situated in the central portion of Union City and covers approximately 471 acres. Public, institutional, and civic uses are the most prominent existing land uses in the Planning Area, followed by industrial and residential uses. The Planning Area includes several community amenities, including the 3,472 student James Logan High School, an elementary school campus, a commercial center, and the city’s main community park. The Planning Area

¹⁵ 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 1, 2021.

¹⁶ 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. Accessed: July 1, 2021.

currently includes 45 acres of vacant land under a combination of public and private ownership. Some of these vacant parcels are the location of active development proposals or agreements, including transit-oriented housing and office. Sensitive receptors are currently located at the aforementioned land uses (e.g., residential, schools, parks, etc.) throughout the Planning Area.

Table 3.2-3: Federal and State Ambient Air Quality Attainment Status for Alameda County portion of the SFBAAB

Criteria Pollutant	Federal Designation	State Designation
Ozone (8-hour)	Marginal Nonattainment	Nonattainment
Carbon Monoxide (CO)	Unclassified/Attainment (P)	Attainment
Particulate Matter (PM ₁₀)	Unclassified	Nonattainment
Fine Particulate Matter (PM _{2.5})	Attainment	Nonattainment
Nitrogen Dioxide (NO ₂)	Attainment	Attainment
Sulfur Dioxide (SO ₂)	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. 2020. *State Area Designations Regulations*. Appendix C: Maps and Tables of Area Designations for State and National Ambient Air Quality Standards. October. Available: <https://ww2.arb.ca.gov/sites/default/files/classic/regact/2021/sad20/appc.pdf>. Accessed: July 1, 2021.
 U.S. Environmental Protection Agency. 2020. *Nonattainment Areas for Criteria Pollutants* (Green Book) (Alameda County). Available: <https://www.epa.gov/green-book>. Accessed: July 1, 2021.

Notes:

P = portion of the county

REGULATORY SETTING

Federal Regulations

Air quality in the project area is regulated through the efforts of various federal, state, regional, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, planning, policy-making, education, and a variety of programs. The agencies responsible for improving the air quality within the air basin are discussed below.

National Ambient Air Quality Standards

The EPA has been charged with implementing national air quality programs. EPA’s air quality mandates draw primarily from the federal CAA, which was enacted in 1963. The most recent major amendments were made by Congress in 1990. The CAA required EPA to establish NAAQS for six common air pollutants found all over the U.S. referred to as criteria air pollutants. EPA has established primary and secondary NAAQS for the following criteria air pollutants: ozone, CO, NO₂, SO₂, PM₁₀, PM_{2.5}, and lead. The NAAQS are shown in Table 3.2-4. The primary standards

protect public health and the secondary standards protect public welfare. The CAA also required each state to prepare a State implementation plan (SIP) for attaining and maintaining the NAAQS. The federal Clean Air Act Amendments of 1990 (CAAA) added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. California’s SIP is modified periodically to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies. EPA is responsible for reviewing all SIPs to determine whether they conform to the mandates of the CAA and its amendments, and whether implementation will achieve air quality goals. If EPA determines a SIP to be inadequate, EPA may prepare a federal implementation plan that imposes additional control measures. If an approvable SIP is not submitted or implemented within the mandated time frame, sanctions may be applied to transportation funding and stationary air pollution sources in the air basin.

Table 3.2-4: National and California Ambient Air Quality Standards

<i>Criteria Pollutant</i>	<i>Average Time</i>	<i>California Standards</i>	<i>National Standards^a</i>	
			<i>Primary</i>	<i>Secondary</i>
Ozone	1-hour	0.09 ppm	None ^b	None ^b
	8-hour	0.070 ppm	0.070 ppm	0.070 ppm
Particulate Matter (PM ₁₀)	24-hour	50 µg/m ³	150 µg/m ³	150 µg/m ³
	Annual mean	20 µg/m ³	None	None
Fine Particulate Matter (PM _{2.5})	24-hour	None	35 µg/m ³	35 µg/m ³
	Annual mean	12 µg/m ³	12.0 µg/m ³	15 µg/m ³
Carbon Monoxide (CO)	8-hour	9.0 ppm	9 ppm	None
	1-hour	20 ppm	35 ppm	None
Nitrogen Dioxide (NO ₂)	Annual mean	0.030 ppm	0.053 ppm	0.053 ppm
	1-hour	0.18 ppm	0.100 ppm	None
Sulfur Dioxide ^c (SO ₂)	Annual mean	None	0.030 ppm	None
	24-hour	0.04 ppm	0.014 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 ³	None	None
	Calendar quarter	None	1.5 µg/m ³	1.5 µg/m ³
	3-month average	None	0.15 µg/m ³	0.15 µg/m ³
Sulfates	24-hour	25 µg/m ³	None	None
Visibility-reducing Particles	8-hour	– ^d	None	None
Hydrogen Sulfide (H ₂ S)	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 Available: <https://ww2.arb.ca.gov/sites/default/files/2020-07/aaqs2.pdf>. Accessed: July 1, 2021.

- ^a. 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.
- ^b. 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.
- ^c. The annual and 24-hour NAAQS for SO₂ 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.
- ^d. CAAQS for visibility-reducing particles is defined by an extinction coefficient of 0.23 per kilometer—visibility of 10 miles or more due to particles when relative humidity is less than 70 percent.

CAAQS = California Ambient Air Quality Standards; NAAQS = National Ambient Air Quality Standards; ppm = parts per million; µg/m³ = micrograms per cubic meter

Corporate Average Fuel Economy Standards for Light-Duty Passenger Vehicles

The National Highway Traffic Safety Administration (NHTSA) Corporate Average Fuel Economy (CAFE) standards require substantial improvements in fuel economy and reductions in emissions of criteria air pollutants and precursors, as well as greenhouse gases, from all light-duty vehicles sold in the United States. On August 2, 2018, NHTSA and the EPA proposed an amendment to the fuel efficiency standards for passenger cars and light trucks and established new standards for model years 2021 through 2026 that would maintain the then-current 2020 standards through 2026—this was known as the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule. On September 19, 2019, NHTSA and the EPA issued a final action on the One National Program Rule, which is considered Part One of the SAFE Vehicles Rule and a precursor to the proposed fuel efficiency standards. The One National Program Rule enables NHTSA and the EPA to provide nationwide uniform fuel economy and air pollutant standards by 1) clarifying that federal law preempts state and local tailpipe 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.

NHTSA and the EPA published their decision to withdraw California’s waiver and finalize the regulatory text related to the preemption on September 27, 2019 (84 *Federal Register* 51310). California, 22 other states, the District of Columbia, and two cities filed suit against Part One of the SAFE Vehicles Rule on September 20, 2019 (*California et al. v. United States Department of Transportation et al.*, 1:19-cv-02826, U.S. District Court for the District of Columbia). On October 28, 2019, the Union of Concerned Scientists, Environmental Defense Fund, and other groups filed a protective petition for review after the federal government sought to transfer the suit to the District of Columbia (*Union of Concerned Scientists v. National Highway Traffic Safety Administration*). The lawsuit filed by California and others has been stayed, pending resolution of the petition.

NHTSA and the EPA published final rules on April 30, 2020, to amend and establish national air pollutant and fuel economy standards (Part Two of the SAFE Vehicles Rule) (85 *Federal Register* 24174). The revised rule changes the national fuel economy standards for light-duty vehicles from 46.7 miles per gallon (mpg) to 40.4 mpg in future years. California, 22 other states, and the District of Columbia filed a petition for review of the final rule on May 27, 2020.¹⁷

¹⁷ *California et al. v. United States Department of Transportation et al.*, 1:19-cv-02826, U.S. District Court for the District of Columbia.

On January 20, 2021, the president issued an executive order, directing NHTSA and the EPA to review the SAFE Vehicles Rule, Part One, and propose a new rule for suspending, revising, or rescinding it by April 2021. The executive order also requires NHTSA and the EPA to propose a new rule for suspending, revising, or rescinding Part Two by July 2021. On April 22, 2021, NHTSA announced it proposes to repeal the SAFE Vehicles Rule, Part One, allowing California the right to set its own standards.¹⁸

Emission Standards for On-road Heavy-duty Vehicles

EPA has established a series of increasingly strict emission standards for new heavy-duty bus and truck engines. Emissions from heavy-duty trucks are managed by regulations and emission limits implemented at the federal, state, and local levels. In December 2000, EPA signed the Heavy-Duty Highway Rule, which reduces emissions from on-road, heavy-duty diesel trucks by establishing a series of increasingly strict emission standards for new engines. Manufacturers were required to produce new diesel vehicles that meet PM and NO_x emission standards beginning with model year 2007, with the phase-in period being between 2007 and 2010. The phase-in was based on a percentage-of-sales basis: 50 percent from 2007 to 2009 and 100 percent in 2010. Requirements apply to engines installed in all vehicles with a gross vehicle weight rating (GVWR) above 14,000 pounds and to some engines installed in vehicles with a GVWR between 8,500 and 14,000 pounds.¹⁹

Emission Standards for Non-road Diesel Engines

To reduce emissions from non-road diesel equipment, EPA established a series of increasingly strict emission standards for new non-road diesel engines, also referred to as off-road diesel engines. Tier 1 standards were phased in on newly manufactured equipment from model years 1996 through 2000, depending on the engine horsepower category. Tier 2 standards were phased in on newly manufactured equipment from model years 2001 through 2006. Tier 3 standards were phased in on newly manufactured equipment from model years 2006 through 2008. Tier 4 standards, which require advanced emission-control technology, were phased in from model years 2008 through 2015.

Hazardous Air Pollutants and Toxic Air Contaminants

TACs, or in federal parlance, hazardous air pollutants (HAPs), are a defined set of airborne pollutants that may pose a present or potential hazard to human health. A TAC is defined as an air pollutant that may cause or contribute to an increase in mortality or in serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations.

A wide range of sources, from industrial plants to motor vehicles, emit TACs. The health effects associated with TACs are quite diverse and generally are assessed locally, rather than regionally.

¹⁸ U.S. Department of Transportation, National Highway Transportation Safety Administration. 2021. *Corporate Average Fuel Economy Preemption*. Available: https://www.nhtsa.gov/sites/nhtsa.gov/files/documents/cape_preemption_nprm_04222021_1.pdf. Accessed: July 1, 2021.

¹⁹ U.S. Environmental Protection Agency. 2019. *Regulations for Smog, Soot, and Other Air Pollution from Commercial Trucks & Buses*. Last Updated February 21. Available: <https://www.epa.gov/regulations-emissions-vehicles-and-engines/regulations-smog-soot-and-other-air-pollution-commercial>. Accessed July 1, 2021.

TACs can cause long-term health effects such as cancer, birth defects, neurological damage, asthma, bronchitis, or genetic damage; or short-term acute effects such as eye watering, respiratory irritation (a cough), running nose, throat pain, and headaches.

For evaluation purposes, TACs are separated into carcinogens and non-carcinogens based on the nature of the physiological effects associated with exposure to the pollutant. Carcinogens are assumed to have no safe threshold below which health impacts would not occur. This contrasts with criteria air pollutants for which acceptable levels of exposure can be determined and for which the ambient standards have been established (Table 3.2-4). Cancer risk from TACs is expressed as excess cancer cases per one million exposed individuals, typically over a lifetime of exposure.

EPA and CARB regulate HAPs and TACs, respectively, through statutes and regulations that generally require the use of the maximum available control technology or best available control technology for air toxics to limit emissions.

State Regulations

California Clean Air Act and California Ambient Air Quality Standards

In 1988, the state legislature adopted the California CAA, which established a statewide air pollution control program. The California CAA requires all air districts in the state to endeavor to meet the CAAQS by the earliest practical date. Unlike the federal CAA, the California CAA does not set precise attainment deadlines. Instead, the California CAA establishes increasingly stringent requirements for areas that require more time to achieve the standards. The CAAQS are generally more stringent than the NAAQS and incorporate additional standards for sulfates, hydrogen sulfide, visibility-reducing particles, and vinyl chloride. The CAAQS and NAAQS are listed together in Table 3.2-4.

CARB and regional air districts bear responsibility for achieving California's air quality standards. The standards are to be achieved through district-level air quality management plans, which are incorporated into the SIP. In California, EPA has delegated authority to prepare SIPs to CARB, which, in turn, has delegated that authority to individual air districts, such as the BAAQMD. CARB has traditionally established state air quality standards, maintained oversight authority for air quality planning, developed programs for reducing emissions from motor vehicles, developed air emissions inventories, collected air quality and meteorological data, and approved SIPs.

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

Statewide Truck and Bus Regulation

CARB adopted the Truck and Bus Regulation in 2008 to focus its efforts on reducing emissions of DPM, NO_x, and other criteria pollutants from diesel-fueled vehicles. This regulation applies to any

diesel-fueled vehicle as well as any dual-fuel or alternative-fuel diesel vehicle that travels on public highways; yard trucks with on-road engines; yard trucks with off-road engines used for agricultural operations; school buses; and vehicles with a GVWR of more than 14,000 pounds. The purpose of the regulation is to require trucks and buses registered in the state to have 2010 or newer engines by 2023. Compliance schedules have been established for lighter vehicles (GVWR of 14,000–26,000 pounds) and heavier vehicles (GVWR of more than 26,001 pounds).²⁰ As of January 1, 2020, only vehicles that met the requirements of the Trucks and Bus Regulation were allowed to register with the California Department of Motor Vehicles.

Air Toxic Control Measure

In 2004, CARB developed multiple measures under its air toxic control measures (ATCMs) to address specific mobile- and stationary-source issues that adversely affect public health. The ATCMs focused on reducing the public's exposure to DPM and TAC emissions. The "Limit Diesel-Fueled Commercial Motor Vehicle Idling" ATCM required drivers of heavy-duty trucks with a GVWR of more than 10,000 pounds to not idle the primary engine for more than 5 minutes at any given time or operate an auxiliary power system for more than 5 minutes within 100 feet of a restricted area.²¹ In addition, CARB set operating requirements for new emergency standby engines (i.e., diesel-fueled compression-ignition engines of less than 50 brake horsepower). Specifically, new engines shall not operate more than 50 hours per year for maintenance and testing purposes. This does not limit engine operation for emergency use or the emissions testing required to show compliance with ATCM Section 93115.6(a)(3).

Toxic Air Contaminant Regulation

California regulates TACs primarily through the Tanner Act (AB 1807) and the Hot Spots Act (AB 2588). The Tanner Act (AB 1807) created California's program to reduce exposure to air toxics. CARB defines TACs as air pollutants that may cause or contribute to an increase in mortality or an increase in serious illness or that may pose a present or potential hazard to human health. CARB has formally identified over 200 substances and groups of substances as TACs.²² Direct exposure to these pollutants has been shown to cause cancer, birth defects, damage to the brain and nervous system, and respiratory disorders. The Hot Spots Act (AB 2588) supplements the AB 1807 program by requiring a statewide air toxics inventory, notification of people exposed to a significant health risk, and facility plans to reduce these risks. The California OEHHA is required to develop guidelines for health risk assessments under the Air Toxics Hot Spots Program. These guidelines provide the scientific basis for the values used to assess the risk of emissions exposure from facilities and new sources.²³

²⁰ California Air Resources Board. 2020. *CARB Truck Rule Compliance Required for DMV Registration*. July. Available: https://ww3.arb.ca.gov/msprog/truckstop/pdfs/sb1_faqeng.pdf. Accessed: July 1, 2021.

²¹ California Air Resources Board. 2005. *Final Regulation Order, Regulation for In-Use Off-Road Diesel Vehicles*. Available: <https://ww3.arb.ca.gov/regact/2007/ordiesl07/frooal.pdf>. Accessed: July 1, 2021.

²² California Air Resources Board. 2021. *CARB-Identified Toxic Air Contaminants*. Available: <https://ww2.arb.ca.gov/resources/documents/carb-identified-toxic-air-contaminants>. Accessed: July 1, 2021.

²³ Office of Environmental Health Hazard Assessment. 2015. *Air Toxics Hot Spots Program Guidance Manual for the Preparation of Health Risk Assessments*. Air, Community, and Environmental Research Branch, Office of Environmental Health Hazard Assessment, California Environmental Protection Agency. February. Available: <https://oehha.ca.gov/media/downloads/crnrr/2015guidancemanual.pdf>. Accessed: July 1, 2021.

Off-Road Diesel Vehicle Regulation

Off-road vehicles include, but are not limited to, diesel compression-ignition equipment; spark-ignition gasoline and liquefied petroleum gas equipment; support equipment at ports, airports, and railways; and marine vehicles. In 2007, CARB aimed to reduce emissions of DPM, NO_x, and other criteria pollutants from off-road diesel-fueled equipment with adoption of the In-Use Off-Road Diesel-Fueled Fleets Regulation (Off-Road Regulation). The Off-Road Regulation applies to all diesel-fueled equipment or alternative-fuel diesel equipment with a compression-ignition engine greater than 25 horsepower (e.g., tractors, bulldozers, backhoes) as well as dual-fuel equipment. The regulation also applies to all equipment that is rented or leased.²⁴ The purpose of the regulation is to reduce emissions by retiring, repowering, or replacing older, dirtier engines with newer, cleaner engines. The regulation established a compliance schedule for owners of small, medium, and large fleets. The schedule for large and medium fleets requires full implementation by 2023; small fleets have until 2028.²⁵

Local Regulations

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 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 Alameda County. The 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).²⁶ The 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 (2017 Clean Air Plan).²⁷

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 greenhouse gases (GHGs)

²⁴ California Air Resources Board. 2008. *Final Regulation Order, Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling*. Available: <https://ww3.arb.ca.gov/regact/idling/fro1.pdf>. Accessed: July 1, 2021.

²⁵ Ibid.

²⁶ Bay Area Air Quality Management District. 2017. *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: July 1, 2021.

²⁷ Bay Area Air Quality Management District. 2017. *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: July 1, 2021.

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, the BAAQMD also adopts rules and regulations to improve existing and future air quality. The Proposed Plan 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 Contaminants)**—This regulation outlines guidance for evaluating TAC emissions and their potential health risks.
- **Regulation 6, Rule 1 (Particulate Matter)**—This regulation restricts emissions of particulate matter (PM) darker than No. 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 reactive organic gases (ROG) in architectural coatings.
- **Regulation 9, Rule 6 (Nitrogen Oxides Emission from Natural Gas-Fired Boilers and Water Heaters)**—This regulation limits emissions of nitrogen oxides (NO_x) generated by natural gas-fired boilers.
- **Regulation 9, Rule 8 (Stationary Internal Combustion Engines)**—This regulation limits emissions of NO_x and carbon monoxide (CO) from stationary internal combustion engines of more than 50 horsepower.

Union City General Plan (UC 2040)

The Union City General Plan (UC 2040) includes the following goals and policies associated with air quality:

Goal RC-5: To prevent the deterioration of and to improve air quality within Union City.

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_x, and PM (PM₁₀ and PM_{2.5}).

Policy RC-5.3: Wood Burning Fireplace Replacement — The City shall promote the replacement of non-EPA certified fireplaces and woodstoves and encourage residents to participate in BAAQMD programs, such as the Wood Smoke Reduction Incentive Program.

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 OEHHA 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.

Goal RC-6: 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-6.7: 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 (ZNE) 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-6.9 Water Heater Replacement —The City shall encourage the use of high-efficiency or alternatively-powered water heater replacements at time of replacement in existing residential development.

Although goals and policies of the General Plan's Mobility Element are not focused on reduction of criteria pollutant emissions, they do support developing streets that focus on safe travel for all users which would encourage non-automotive travel.

Goal M-1: Design and maintain streets to be safe and accessible for all categories of users.

Policy M-1.1: Complete Streets for All Users — The City shall strive to create a comprehensive, integrated network of roadways (including streets, roads, highways, bridges, and other portions of the transportation system) that provide safe, comfortable, and convenient travel for all users, including pedestrians, bicyclists, persons with disabilities, motorists, movers of commercial goods, users and operators of public transportation, emergency responders, seniors, children, youth, and families and includes green infrastructure.

Policy M-1.2: Planning for Complete Streets — The City shall incorporate “complete streets” practices as a routine part of everyday operations, and a factor to be considered in every project, program, and practice relating to the transportation network for all categories of users, and work in coordination with other departments, agencies, and jurisdictions to maximize opportunities for complete streets, connectivity, and cooperation.

Policy M-1.4: Safe Travel for All Users — The City shall ensure complete streets infrastructure sufficient to enable reasonably safe travel along and across the right of way for each category of users is incorporated into all planning, funding, design, approval, and implementation processes for any construction, reconstruction, retrofit, maintenance, operations, alteration, or repair of streets, except that specific infrastructure for a given category of users may be excluded if an exception is approved by the Public Works Director.

Impact Analysis

SIGNIFICANCE CRITERIA

For the purposes of this EIR, a significant impact would occur if the Proposed Plan would:

- Criterion 1: Conflict with or obstruct implementation of the applicable air quality plan.**
- Criterion 2: Result in a cumulatively considerable net increase in any criteria pollutant for which the project region is classified as a nonattainment area under an applicable federal or state ambient air quality standard.**
- Criterion 3: Expose sensitive receptors to substantial pollutant concentrations.**
- Criterion 4: Result in other emissions (such as those leading to odors) that would adversely affect a substantial number of people.**

As discussed above, all pollutants that would be generated by the Proposed Plan are associated with some form of health risk (e.g., asthma, lower respiratory problems). 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 Proposed Plan are ozone precursors (ROG and NO_x), CO, PM, and TAC (including DPM and asbestos). Emission thresholds that can be used to evaluate the significance level of regional and localized pollutants are discussed in the following subsections. Thresholds and guidance for evaluating potential odors associated with the Proposed Plan area also presented.

Regional Emissions

This analysis evaluates the impacts of regional emissions generated by the Proposed Plan using a two-tiered approach that considers both project- and plan-level guidance recommended by the BAAQMD in its CEQA Guidelines.²⁸

First, this analysis considers whether the Project would conflict with the most recent air quality plan (2017 Clean Air Plan), consistent with the BAAQMD guidance for programmatic analyses.^{29,30} 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.

²⁸ Bay Area Air Quality Management District. 2017. *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. Accessed: July 1, 2021.

²⁹ 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. Accessed: July 1, 2021.

³⁰ Bay Area Air Quality Management District. 2017. *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: July 1, 2021.

Second, calculated regional criteria pollutant emissions for Proposed Plan operations are compared to the BAAQMD’s project-level thresholds. The BAAQMD’s thresholds are summarized in Table 3.2-5 and are recommended by the air district to evaluate the significance of a project’s regional criteria pollutant emissions.³¹ Construction-related emissions have not been quantified and are not evaluated with respect to the thresholds. According to the BAAQMD, projects with emissions in excess of the thresholds shown in Table 3.2-5 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 3.2-5: BAAQMD Project-Level Regional Criteria Pollutant Emission Thresholds

Analysis Scenario	BAAQMD Thresholds
Regional Criteria Pollutants (Construction)	ROG: 54 lb/day NO _x : 54 lb/day PM ₁₀ : 82 lb/day (exhaust only) PM _{2.5} : 54 lb/day (exhaust only)
Regional Criteria Pollutants (Operations)	ROG: 54 lb/day NO _x : 54 lb/day PM ₁₀ : 82 lb/day (includes fugitive and exhaust emissions) PM _{2.5} : 54 lb/day (includes fugitive and exhaust emissions)

Sources: Bay Area Air Quality Management District. 2017. *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. Accessed: July 1, 2021.

lb = pounds

ROG = reactive organic gases

NO_x = nitrogen oxides

PM₁₀ = coarse particulate matter that is 10 microns in diameter and smaller

PM_{2.5} = fine particulate matter that is 2.5 microns in diameter and smaller

The BAAQMD’s project-level thresholds were developed to analyze emissions generated by a single project, and thus, do not lend well to an evaluation of emissions from a land use plan being evaluated at a programmatic level. Large-scale land use plans that consist of numerous individual projects will, by their nature, produce more criteria pollutants than single projects, even if the plans include efficiency measures to reduce future emissions. Use of the project-level thresholds to evaluate land use plans may therefore unfairly penalize the plans, yielding a significant and unavoidable conclusion simply due to scale. However, because a comparison to the project-level thresholds is informative to the analysis of the Proposed Plan’s impacts to air quality, this analysis accounts for both sets of thresholds.

³¹ Bay Area Air Quality Management District. 2017. *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. Accessed: July 1, 2021.

Health-Based Thresholds for Project-Generated Pollutants of Human Health Concern

The California Supreme Court's 2018 decision in *Sierra Club v. County of Fresno* (6 Cal. 5th 502), hereafter referred to as the Friant Ranch Decision, reviewed the long-term regional air quality analysis contained in the environmental impact report (EIR) for the proposed Community Plan Update and Friant Ranch Specific Plan (Friant Ranch Project). The Friant Ranch Project proposed a 942-acre master-plan development in unincorporated Fresno County, within the San Joaquin Valley Air Basin, which is currently designated as a nonattainment area with respect to the NAAQS and CAAQS for O₃ and PM_{2.5}. The court found that the 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 notes that environmental documents must attempt to connect a project's air quality impacts to specific health effects or explain why it is not technically feasible to perform such an analysis.

All criteria pollutants generated by the Proposed Plan would be associated with some form of health risk (e.g., asthma, lower respiratory problems). Criteria pollutants can be classified as either regional pollutants 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. O₃ is considered a regional criteria pollutant, whereas CO, NO₂, SO₂, and lead are localized pollutants. Particulate matter can be both a local and a regional pollutant, depending on its composition. The primary criteria pollutants of concern generated by the Proposed Plan would be O₃ precursors (ROG and NO_x), CO, and particulate matter, including DPM.

The sections that follow discuss thresholds and analysis considerations for regional and local project-generated criteria pollutants with respect to their human health implications.

Regional Project-Generated Criteria Pollutants (Ozone Precursors and Regional Particulate Matter)

Adverse health effects from regional criteria pollutant emissions, such as O₃ precursors and particulate matter, generated by the Proposed Plan 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]). Therefore, O₃ precursors (ROG and NO_x) contribute to the formation of ground-borne O₃ on a regional scale. Emissions of ROG and NO_x generated in an area may not correlate to a specific O₃ concentration in that same area. Similarly, some types of particulate pollutants 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 O₃ or regional particulate matter 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 discussed above, there are large individual differences in the intensity of symptomatic responses to air pollutants. These differences are influenced, in part, by the underlying health condition of an individual, which cannot be known.

Models and tools have been developed to correlate regional criteria pollutant emissions to potential community health impacts. [Appendix B](#) 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. Although models are capable of quantifying O₃ and any secondary particulate matter 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 is not possible with any degree of accuracy.

The technical limitations of existing models (e.g., for correlating project-level regional emissions to specific health consequences) are recognized by air quality management districts throughout the state, including the San Joaquin Valley Air Pollution Control District (SJVAPCD) and South Coast Air Quality Management District (SCAQMD), which provided amici curiae briefs for the Friant Ranch Project's legal proceedings. In its brief, the SJVAPCD acknowledged that HRAs for localized air toxics, such as DPM, are common; however, "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."³² The SJVAPCD further notes that emissions solely from the Friant Ranch Project, which equate to less than one-tenth of one percent of total NO_x and volatile organic compounds in the valley, is not likely to yield valid information and that any such information would not be "accurate when applied at the local level." SCAQMD presents similar information in its brief, stating that "it takes a large amount of additional precursor emissions to cause a modeled increase in ambient O₃ levels."^{33,34}

As discussed above, air districts develop region-specific CEQA thresholds of significance in consideration of existing air quality concentrations as well as attainment or nonattainment designations under the NAAQS and CAAQS. The NAAQS and CAAQS are informed by a wide range of scientific evidence that demonstrates that there are known safe concentrations of criteria pollutants. Although recognizing that air quality is a cumulative problem, air districts typically consider projects that generate criteria pollutant and O₃ precursor emissions that are below the thresholds to be minor in nature. Such projects would not adversely affect air quality or exceed the NAAQS or CAAQS. Emissions generated by the Proposed Plan could increase photochemical reactions and the formation of tropospheric O₃ and secondary particulate matter, which, at certain concentrations, could lead to increased incidences of specific health consequences. Although these health effects are associated with O₃ and particulate pollution, the effects are a result of cumulative and regional emissions. Therefore, the Proposed Plan's incremental contribution cannot be traced to specific health outcomes on a regional scale, and a quantitative correlation of project-generated regional criteria pollutant emissions to specific human health impacts is not included in this analysis. It is foreseeable that unmitigated construction-related and operational emissions of O₃ precursors and particulate matter, in excess of the BAAQMD thresholds, could contribute to

³² San Joaquin Valley Air Pollution Control District. 2015. *Amicus Curiae Brief of San Joaquin Valley Unified Air Pollution Control District in Support of Defendant and Respondent, County of Fresno and Real Party in Interest and Respondent, Friant Ranch, L.P.* Available: <https://www.courts.ca.gov/documents/7-s219783-ac-san-joaquin-valley-unified-air-pollution-control-dist-041315.pdf>. Accessed: July 1, 2021.

³³ South Coast Air Quality Management District. 2015. *Application of the South Coast Air Quality Management District for Leave to File Brief of Amicus Curiae in Support of Neither Party and [Proposed] Brief of Amicus Curiae.* Available: <https://www.courts.ca.gov/documents/9-s219783-ac-south-coast-air-quality-mgt-dist-041315.pdf>. Accessed: July 1, 2021.

³⁴ For example, SCAQMD's analysis of its 2012 Air Quality Attainment Plan showed that the modeled NO_x and ROG reductions of 432 and 187 tons per day, respectively, reduced ozone levels by only 9 parts per billion.

cumulative and regional health impacts. In such cases, all feasible mitigation would be applied, and emissions would be reduced to the extent possible.

Localized Project-Generated Criteria Pollutant Emissions (CO and Particulate Matter) and Air Toxics (DPM and Asbestos)

Localized pollutants generated by a project can affect populations 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 Proposed Plan are CO, particulate matter, DPM, and asbestos. 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. The BAAQMD has adopted screening criteria that provides 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. The BAAQMD's CO screening criteria are summarized below.

- 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.

Particulate Matter

The BAAQMD adopted an incremental PM_{2.5} 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_{2.5} concentrations exceeding 0.3 µg/m³. This is the same threshold used to evaluate the placement of new receptors that would be exposed to individual PM_{2.5} emissions sources. In addition, the BAAQMD considers projects to have a cumulatively considerate PM_{2.5} impact if sensitive receptors are exposed to PM_{2.5} concentrations from local sources within 1,000 feet, including existing sources, project-related sources, and reasonably foreseeable future sources, that exceed 0.8 µg/m³.

The BAAQMD has not established PM₁₀ concentration-based thresholds of significance. BAAQMD's PM_{2.5} thresholds apply to both new receptors and new sources. However, the BAAQMD considers mass emissions of fugitive PM₁₀ from earth moving activities to be less than significant with applicable of the BAAQMD's Basic Construction Mitigation Measures.

Diesel Particular 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. The BAAQMD has adopted incremental cancer and hazard thresholds to evaluate receptor exposure to single sources of DPM emissions. The “substantial” DPM threshold defined by the 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.

The air district considers projects to have a cumulative 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. The 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 in excess of cumulative thresholds.

Asbestos

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

Odors

The BAAQMD and CARB have identified several types of land uses as being commonly associated with odors, such as landfills, wastewater treatment facilities, and animal processing centers.^{35,36} The BAAQMD’s CEQA Guidelines recommend that plan-level analyses identify the location of existing and planned odor sources and include policies to reduce potential odors impacts in the plan area.

METHODOLOGY AND ASSUMPTIONS

Air quality impacts associated with construction and operation of the Proposed Plan were assessed and quantified (where applicable) using standard and accepted software tools, methodologies, and emission factors. A summary of the methodology is provided below. A full list of assumptions can be found in Appendix B.

Construction

As discussed in Chapter 2, *Project Description*, of this draft EIR, the Proposed Plan would facilitate development of a mix of uses including a range of housing options, as well as commercial and retail spaces across the approximately 471-acre Planning Area. Implementation of the Proposed Plan could ultimately result in the removal of up to approximately 496,000 square feet (sf) of industrial uses and a net new development of up to 3,930 multi-family residential units, 4,767,000 sf of office

³⁵ Bay Area Air Quality Management District. 2017. *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. Accessed: July 1, 2021.

³⁶ 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: July 1, 2021.

use, and 133,000 sf of retail use.³⁷ The land uses that could be developed under the Proposed Plan would generate construction-related emissions from mobile and stationary construction equipment exhaust, employee and haul truck vehicle exhaust and fugitive dust, fugitive dust from land clearing and material movement, and off-gassing emissions from paving and application of architectural coatings. The specific size, location, construction techniques and scheduling that would be utilized for each future individual development project occurring within the Planning Area from implementation of the Proposed Plan is not currently known. With an anticipated buildout year of 2040, development of the various land uses associated with the Proposed Plan would occur over an extended period of time and would depend on factors such as local economic conditions, market demand, and other financing considerations. As such, without specific project-level details it is not possible to develop a refined construction inventory.³⁸ Consequently, the determination of construction air quality impacts for each individual development project, or a combination of these projects, would require the City to speculate regarding such potential future project-level environmental impacts. Thus, in the absence of the necessary construction information required to provide an informative and meaningful analysis, the evaluation of potential construction-related impacts resulting from implementation of the Proposed Plan is conducted qualitatively in this EIR.

Operations

Long-term (i.e., operational) regional emissions of criteria air pollutants and precursors, including mobile-, energy-, and area-source emissions, were quantified for the Proposed Plan. As stated in Chapter 2, *Project Description*, buildout of the 20-year planning horizon of the Proposed Plan included existing development, pipeline development, and new development. The land uses categorized as “existing development” would remain unchanged through 2040, land uses categorized as “pipeline development” included projects that are being reviewed or have been approved by the City, but not yet constructed, and “new development” includes the future development within the Planning Area. Since existing development would remain unchanged, the air quality analysis focuses on the net change in development which would include the land uses associated with the pipeline and new development categories. The only existing land uses analyzed in the air quality analysis are the industrial land uses to be removed in the Station East and Gateway subareas. Emissions associated with these land uses to be removed were quantified and accounted for in the air quality analysis.

Operational Mobile Source Emissions

Criteria pollutant emissions from motor vehicles were estimated using emission factors from CARB’s most recent version of its Emission FACtor model, version 2021 (EMFAC2021) and daily vehicle trips and daily vehicle miles traveled (VMT) from as described in the Section 3.12, *Transportation* and Appendix F, *Traffic Model Data*, of this EIR. Daily trips and VMT accounted for trip reductions achieved by quantifiable policies, including proximity to transit and mixed-use design. The daily VMT also accounts for the removal of the existing industrial land uses. Upon full

³⁷ The air quality modeling analysis was conducted based on the development anticipated at that time. Although the net amount of development has since changed, the air quality analysis represented in this section is conservative, because it assumes a greater amount of net development than may actually occur.

³⁸ Project-level information includes details such as the size and scale of the project to be constructed, construction schedule, equipment fleet, construction worker crew estimates, and demolition, and grading quantities.

buildout, the Proposed Plan would result in a net increase of 56,660 daily trips and daily VMT of 856,834. Criteria pollutants emissions from vehicles were calculated by multiplying the VMT estimates by the appropriate emission factors provided by EMFAC2021. 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 EMFAC2021. Please refer to Appendix F for detailed summary of data utilized in this analysis.

Operational Area, Energy, and Stationary Source Emissions

Area and energy emissions were estimated using the most recent version of the California Emission Estimator Model (CalEEMod), version 2020.4.0. Area sources include emissions from natural gas combustion in fireplaces, use of landscape maintenance equipment, repainting of buildings, and consumer products (cleaners, detergents, degreasers, etc.).³⁹ Energy sources include the combustion of natural gas for building heating and hot water. Area- and energy- source emissions for the industrial land uses to be removed were quantified using a baseline year of 2020. The Proposed Plan's emissions were estimated using a buildout year of 2040. Because operational details for each individual development project proposed under the Proposed Plan are currently unknown, CalEEMod defaults were assumed based on the anticipated land uses. Stationary sources such as emergency generators and boilers that would be developed for each individual development project, or a combination of these projects, would be subject to the permitting requirements by the BAAQMD. Stationary sources are discussed qualitatively, because details of future projects and their stationary sources are currently unknown.

RELEVANT PROPOSED GOALS AND POLICIES

The following goals and policies of the Proposed Plan are generally relevant to potential air quality impacts.

G-UD-7: Urban Development. Promote compact development patterns and an urban feel through higher intensity development and quality design.

G-UD-8: Sustainability. Continue to promote green leadership in Union City and expand the Station District as a green and healthy community.

P-UD-26: Sustainability. Ensure that development incorporates sustainable site design measures such as permeable paving, stormwater management, and water efficient landscaping.

³⁹ Per BAAQMD, wood-burning devices of any kind are not allowed to be installed in new homes or buildings being constructed in the Bay Area. Only emissions from natural gas fireplaces were included in the analysis. Bay Area Air Quality Management District. 2020. Wood Smoke Pollution. Last updated March 11. Available: <https://www.baaqmd.gov/rules-and-compliance/wood-smoke>. Accessed: July 1, 2021.

IMPACTS

Impact 3.2-1 Implementation of the Proposed Plan would not conflict with or obstruct the 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 five 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.⁴⁰

According to the BAAQMD's CEQA Guidelines, the determination of 2017 Clean Air Plan consistency should consider the following for plan-level analyses.⁴¹

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

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

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 Plan includes principles in Chapter 2, *Project Description*, that will support regional attainment of the CAAQS and NAAQS. For example, the Planning Area would create an east-west central spine that links the Marketplace, BART, the Core, and Station East, prioritizing pedestrian and bicycle connections that provide an interconnected network of streets, sidewalks, bicycle lanes, pathways, and multi-use trails that knit the district together and enable people to easily and directly traverse the area on foot or bicycle. Furthermore, the Proposed Plan would support green leadership in the city to maintain and expand sustainable building and landscape design, sustainable water use and irrigation practices, and reduced energy use. Together, these policies will lessen the severity of growth-oriented criteria pollutants by reducing VMT, encouraging transit, fostering bicycle and pedestrian infrastructure, and supporting sustainable land use patterns, including mixed-use design and increased density. The Union City Intermodal station is located at

⁴⁰ Bay Area Air Quality Management District. 2017. *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: July 1, 2021.

⁴¹ Bay Area Air Quality Management District. 2017. 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. Accessed: July 1, 2021.

the center of the Planning Area and would be in close proximity to future development that would allow future residents and those who commute to work, easy access to quality public transit and reduce single occupancy vehicle trips and VMT, and their associated criteria pollutants and GHG emissions.

Based on the above analysis, the Proposed Plan 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 Plan are transportation, energy, building, waste management, water, and stationary source-control measures. These control 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.

- **Building (BL)1: 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 BAAQMD 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 BAAQMD guidance documents to recommend that commercial and multi-family developments install ground source heat pumps and solar hot water heaters.
- **Natural and Working Lands (NW)2: 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, BAAQMD’s technical guidance, best practices for local plans and CEQA review.
- **Waste Management (WA)3: 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.
- **Water (WR)2: 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.
- **Stationary Source (SS)32: 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 Plan includes design features that support emissions reduction in the transportation sector. For instance, the Proposed Plan would promote transit and pedestrian connectivity by facilitating walking or biking to the adjacent bus stops and the nearby Union City Intermodal 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 Planning Area (Measure TR2, TR9, and TR14). In addition, the Proposed Plan would support green leadership in the city to maintain and expand sustainable building and landscape design, sustainable water use and irrigation practices, and reduced energy use (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.

Future development projects within the Planning Area would provide adequate landscaping which would include planting of trees and drought tolerant plants and shrubs which would reduce emissions associated with lawn and garden equipment (Measure NW2 and TR23). Stationary sources associated with future development would be subject to the permit authority of the BAAQMD to reduce associated health risks and air quality impacts (Measure SS32).

Based on the above analysis, the Proposed Plan 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 Plan would incorporate sustainability design features. The Proposed Plan would not cause the disruption, delay, or otherwise hinder implementation of any applicable control measure from the 2017 Clean Air Plan. Rather, the Proposed Plan would support and facilitate their implementation. For example, the Proposed Plan encourages sustainability measures such as use of promotion of sustainable building design and landscaped design and support alternative modes of transportation such as transit, walking, and bicycling. Overall, the Proposed Plan would not disrupt or hinder implementation of any applicable *2017 Clean Air Plan* control measures listed above.

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

Mitigation Measures

None required.

Impact 3.2-2 Implementation of the Proposed Plan would result in a cumulatively considerable net increase of criteria pollutants for which the Project region is nonattainment under an applicable federal or State ambient air quality standard. (*Significant and Unavoidable*)

Construction

Construction associated with new land use developments under the Proposed Plan would result in the temporary generation of ozone precursors (ROG, NO_x), CO, and particulate matter emissions that could result in short-term impacts on ambient air quality within the Planning Area. Emissions would originate from mobile and stationary construction equipment exhaust, employee and haul truck vehicle exhaust, fugitive dust emissions from land clearing, soil movement, and demolition, and off-gassing emissions from architectural coatings and asphalt paving. Construction-related emissions would vary substantially depending on the level of activity, length of the construction period, specific construction operations, types of equipment, number of personnel, wind and precipitation conditions, and soil moisture content.

By its nature as a specific plan, the Proposed Plan does not propose any specific development. Construction of land use developments allowable under the Proposed Plan would occur intermittently within the Planning Area throughout the course of the 20-year buildout period. As the timing and intensity of future development projects is not known at this time, the precise effects of construction activities associated with buildout of the Proposed Plan cannot be accurately quantified at this time. Project-specific details of future development within the Planning Area is currently unknown, development would be driven by market conditions, site constraints, land availability, and property owner interest. It is assumed that implementation of the Proposed Plan ultimately could result in the removal of approximately 496,000 sf of industrial uses and a net new development of up to 3,930 residential units, 4,767,000 sf of office use, and 133,000 sf of retail use.⁴² As such, it is anticipated that in any given year, multiple land use development projects would be constructed within the Planning Area.

As noted previously, the BAAQMD's project-level thresholds were developed to analyze emissions generated by a single project. Although the construction emission impacts associated with each new individual development would be short-term in nature (relative to the buildout year) and limited to the period of time when construction activity is taking place for that particular development, the concurrent construction of a multitude of individual development projects that could occur at any one time in the Planning Area under the Proposed Plan would generate combined criteria pollutant emissions on a daily basis that would exceed the BAAQMD's project-level thresholds. In addition, depending on the size and scale of an individual development project, along with its construction schedule and other parameters, there may also be instances where the daily construction emissions generated by a single development project within the Planning Area could also exceed the BAAQMD's criteria pollutant thresholds. These emissions could contribute to ozone formation and other air pollution in the SFBAAB, which at certain concentrations, can contribute to short- and long-term human health effects. To reduce construction-related emissions of future development projects within the Planning Area, future development would be required to comply with the City's General Plan Policy RC-5.2, which requires development projects to incorporate the BAAQMD Basic Construction Mitigation Measures. The extent to which these measures would reduce emissions is unknown. As such, construction emissions generated in the Planning Area by implementation of the Proposed Plan would result in a potentially significant impact on air quality and mitigation would be required.

BAAQMD Basic Construction Mitigation Measures (Required):

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

⁴² The air quality modeling analysis was conducted based on the development anticipated at that time. Although the net amount of development has since changed, the air quality analysis represented in this section is conservative, because it assumes a greater amount of net development than may actually occur.

4. All vehicle speeds on unpaved roads shall be limited to 15 mph.
5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
6. Idling times shall 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 Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
8. Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.

During construction of a development project, the activity that typically generates the highest NO_x and PM exhaust emissions is the operation of off-road equipment and heavy-duty trucks, whereas the activity that typically generates the highest ROG emissions is the application of architectural coatings.

To determine if emissions from individual projects would exceed the BAAQMD thresholds, **Mitigation Measure AQ-1** would be implemented, which requires project sponsors to conduct a project-level emissions analysis for construction if a proposed project exceeds the screening sizes or includes construction activities that prevent the use of the screening sizes.

For project-level analyses that exceed BAAQMD construction thresholds, **Mitigation Measure AQ-2** through **Mitigation Measure AQ-5** would be implemented, as well any project-specific mitigation measures.

- **Mitigation Measure AQ-2** and **Mitigation Measure AQ-3** would require use of Tier 4 engines in off-road equipment and newer, cleaner heavy-duty trucks to reduce NO_x and PM exhaust emission levels.
- Although the BAAQMD considers fugitive PM₁₀ and PM_{2.5} dust emissions significant without the application of standard best management practices (BMPs), **Mitigation Measure AQ-4** would require construction projects within the Planning Area to implement BMPs and additional control measures as recommended by the BAAQMD to reduce these fugitive dust emissions.
- **Mitigation Measure AQ-5** would require the use of low-VOC paints to reduce ROG emission levels during construction activities within the Planning Area.

Thus, the implementation of BMPs and additional control measures for each development project within the Planning Area would reduce fugitive PM₁₀ and PM_{2.5} emissions to less-than-significant levels for the Proposed Plan. However, with respect to ROG, NO_x, PM₁₀ and PM_{2.5} exhaust emissions, there could be foreseeable conditions under the Proposed Plan where the amount of construction activity for an individual development project, or a combination of these projects,

could result in the generation of these pollutant emissions that exceed their respective BAAQMD significance thresholds (i.e., 54 pounds per day [lb/day] for ROG and NO_x, 82 lb/day for exhaust PM₁₀, and 54 lb/day for exhaust PM_{2.5}). Moreover, even with implementation of **Mitigation Measure AQ-2** through **Mitigation Measure AQ-5** in addition to the policies described under Impact 3.2-1, emissions of ROG, NO_x, PM₁₀, and PM_{2.5} exhaust may not be reduced to levels below the BAAQMD's thresholds when multiple construction projects are concurrently ongoing within the Planning Area.

Accordingly, additional mitigation would be required to reduce these emissions impacts to a less-than-significant level. If the proposed project exceeds BAAQMD construction thresholds with incorporation of the above mitigation measures, **Mitigation Measure AQ-6** would be implemented. **Mitigation Measure AQ-6** would require applicants to track all land use development construction activities occurring within the Planning Area, assess and determine the estimated total emissions for all construction activities that would be concurrently ongoing (subject to City review and approval), and coordinate with the BAAQMD to determine the mitigation fees for each development project's applicant to pay on a pro rata basis to the BAAQMD to offset their pollutant emissions as necessary such that the BAAQMD's daily pollutant thresholds would not be exceeded. Based on recent experience of offsets being feasibly available for other large recent projects in the San Francisco Bay Area, it is reasonable to assume that offset programs will be available in the future and thus that emissions can be reduced below threshold levels. Should offsets programs be available for future development, **Mitigation Measure AQ-6** would ensure that the construction-related emissions would not contribute to a significant level of air pollution such that regional air quality within the SFBAAB would be degraded and project impacts on air quality would be less than significant with mitigation. However, because it cannot be concluded that offset programs would always be available in the future at the time and in the amount needed for any given future development, for the purposes of this EIR analysis, construction air quality impacts are conservatively assumed to be significant and unavoidable.

Mitigation Measures

MM-AQ-1: Project-Level Air Quality Analysis for Construction. The City shall require that applicants proposing development of projects within the Planning Area shall compare their project size with the BAAQMD screening sizes appropriate to their project for construction criteria pollutants found in Table 3-1 in the BAAQMD's current CEQA guidelines (2017)⁴³. If the project is less than the screening limit for its project type, then applicants shall confirm to the City whether construction-related activities would include any of the following:

- Demolition;
- Simultaneous occurrence of more than two construction phases (e.g., paving and building construction would occur simultaneously) or construction would occur simultaneous with other Proposed Plan development;

⁴³ As noted above, BAAQMD is expected to release updated CEQA guidelines in the near future. After release of the updated CEQA guidelines, this measure would apply to any updated screening size tables that may be included in the updated CEQA guidelines.

- Simultaneous construction of more than one land use type (e.g., project would develop residential and commercial uses on the same site) (not applicable to high density infill development);
- Extensive site preparation (i.e., greater than default assumptions used by the CalEEMod model for grading, cut/fill, or earth movement); or
- Extensive material transport (e.g., greater than 10,000 cubic yards of soil import/export) requiring a considerable amount of haul truck activity.

If the project is less than the screening limit for the project type and construction would involve none of the five conditions above, then the project would not be required to conduct a project-level emissions analysis.

For projects that exceed the construction screening sizes or include the above activities, a project-level air quality analysis would be required to evaluate the project's construction emissions and compare them to BAAQMD daily thresholds for construction. If the project-level analysis results in exceedances of BAAQMD thresholds, **Mitigation Measure AQ-2** through **Mitigation Measure AQ-5** shall be implemented, as well as any project-specific measures. If the project's emissions are reduced to levels below BAAQMD construction thresholds with implementation of all feasible mitigation measures, impacts would be less than significant. If the project still exceeds BAAQMD construction thresholds with mitigation implemented, the project would be required to purchase mitigation credits as described in **Mitigation Measure AQ-6**.

MM-AQ-2: Require at Least Tier 4 Final Engines on Construction Equipment. The City shall require that all applicants proposing development of projects within the Planning Area shall in turn require their contractors, as a condition of contract, to reduce construction-related exhaust emissions by ensuring that all off-road equipment greater than 50 horsepower (hp) and operating for more than 20 total hours over the entire duration of construction activities shall operate on at least an EPA-approved Tier 4 Final or newer engine. Exemptions can be made for specialized equipment where Tier 4 engines are not commercially available within 200 miles of the project site. The construction contract must identify these pieces of equipment, document their unavailability, and ensure that they operate on no less than an EPA-approved Tier 3 engine. CARB regulations will result in the percentage of Tier 4 engines increasing over the next several years. Applicants must conduct recordkeeping of equipment verification documents for construction equipment and the City has the right to review equipment logs.

MM-AQ-3: Require Use of Diesel Trucks with 2010-Compliant Model Year Engines. The City shall require that all applicants proposing development of projects within the Planning Area shall in turn require their 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 EMFAC database. In the event that 2010 model year or newer diesel trucks cannot be obtained, the contractor must provide documentation to the City showing that a good faith effort to locate such engines was conducted. Applicants must conduct

recordkeeping of truck verification documents and the City has the right to review truck logs.

MM-AQ-4: Require Additional Fugitive Dust Best Management Practices. The City shall require that all applicants proposing development of projects within the Planning Area shall in turn require their contractors, as a condition of contract, to reduce construction-related fugitive dust by implementing the following measures in addition to the BAAQMD's basic control measures at all construction and staging areas. The following measures are based on the BAAQMD's current CEQA guidelines.

- All exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe.
- All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph.
- Wind breaks (e.g., trees, fences) shall be installed on the windward side(s) of actively disturbed areas of construction. Wind breaks should have at maximum 50 percent air porosity.
- Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established.
- The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time shall be limited. Activities shall be phased to reduce the amount of disturbed surfaces at any one time.
- All trucks and equipment, including their tires, shall be washed off prior to leaving the site.
- Site accesses to a distance of 100 feet from the paved road shall be treated with a 6 to 12 inch compacted layer of wood chips, mulch, or gravel.
- Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent.

MM-AQ-5: Require Low-VOC Coatings during Construction. The City shall require that all applicants proposing development of projects within the Planning Area shall in turn 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. The project applicant will submit evidence of the use of low-VOC coatings to the BAAQMD prior to the start of construction. Applicants must conduct recordkeeping of coatings used during construction.

MM-AQ-6: Purchase of Mitigation Credits for Construction Emissions Exceeding the BAAQMD's Daily Pollutant Thresholds. For proposed developments that are estimated to result in exceedances of thresholds with implementation of all feasible mitigation measures, the applicants shall coordinate with a third-party or

governmental entity to pay for criteria pollutant offsets for every year in which construction emissions are estimated to exceed the BAAQMD thresholds. If the estimate shows exceedances of multiple criteria pollutants above the BAAQMD thresholds, then offsets must be obtained to address each pollutant above the thresholds. Emission reduction projects and fee will be determined in consultation between the applicant and the third-party or governmental entity and will include offset provider administrative costs. The agreement that specifies fees and timing of payment shall be provided to the City for review and signed by the applicant and the third-party or governmental entity. The emission reductions shall be secured prior to any year in which construction activity is estimated to result in an exceedance. The payment for the emissions can either be on an annual basis or done once upfront prior to construction.

Operations

Assuming full buildout of the Proposed Plan, long term occupancy (i.e., operations) has the potential to result in air quality impacts from area, energy, and mobile sources. Long-term emissions of criteria air pollutants and precursors, including mobile-, energy-, and area-source emissions, were quantified for the Proposed Plan. Table 3.2-6 summarizes the daily operational emissions associated with the industrial uses to be removed and generated by the Proposed Project at full buildout in 2040. Emissions estimates in Table 3.2-6 represents the net change in emissions (Proposed Plan Development minus Existing Uses to be Removed) for the Proposed Plan.

As shown in Table 3.2-6, the Proposed Plan’s operational emissions would exceed the BAAQMD’s significance thresholds for all pollutants. The increase in ROG emissions is primarily attributed to consumer product use in residential and non-commercial land uses, while mobile source emissions contribute a majority of NO_x, PM₁₀, and PM_{2.5} emissions.

Table 3.2-6: Estimated Unmitigated Criteria Pollutant Emissions from Operation of the Proposed Plan

<i>Scenario/Source Category</i>	<i>Daily Emissions (lb/day)^a</i>				
	<i>ROG</i>	<i>NO_x</i>	<i>CO</i>	<i>PM10</i>	<i>PM2.5</i>
<i>Existing Industrial Uses to Be Removed</i>					
Area Sources	12.0	< 0.1	< 0.1	< 0.1	< 0.1
Energy Sources	0.4	3.3	2.7	0.2	0.2
Existing to be Removed Total	12.4	3.3	2.8	0.2	0.2
<i>Proposed Plan</i>					
Area Sources	236.7	79.8	355.7	7.9	7.9
Energy Sources	3.3	29.1	21.0	2.3	2.3
Mobile Sources ^b	85.8	225.6	1,149.4	614.3	156.2
Proposed Plan Total	325.8	334.5	1,526.1	624.5	166.4

Table 3.2-6: Estimated Unmitigated Criteria Pollutant Emissions from Operation of the Proposed Plan

Scenario/Source Category	Daily Emissions (lb/day) ^a				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
<u>Existing to Be Removed Total</u>	12.4	3.3	2.8	0.2	0.2
Proposed Plan Net Total	313.4	331.2	1,523.3	624.3	166.1
BAAQMD Threshold	54	54	–	82	54
Exceeds Threshold?	<u>Yes</u>	<u>Yes</u>	–	<u>Yes</u>	<u>Yes</u>

Source: See Appendix A for modeling files.

Exceedances of the BAAQMD thresholds are underlined.

^a Values may not add up due to rounding.

^b Mobile-source emissions associated with industrial land uses to be removed are accounted for in Proposed Plan mobile emissions.

ROG = reactive organic gases; NO_x = nitrogen oxide; CO = carbon monoxide; PM₁₀ = particulate matter no more than 10 microns in diameter; PM_{2.5} = particulate matter no more than 2.5 microns in diameter; BAAQMD = Bay Area Air Quality Management District

As discussed above, the BAAQMD’s project-level thresholds were developed to analyze emissions generated by a single project and offer an extremely conservative evaluation of emissions from an entire specific plan. Accordingly, operational air quality impacts of the Proposed Plan are also evaluated for consistency with the 2017 Clean Air Plan to determine whether criteria pollutant emissions attributed to population and economic growth are significant. Impact 3.2-1 provides the 2017 Clean Air Plan consistency analysis based on the requirements of the BAAQMD’s CEQA Guidelines. The analysis demonstrates that the Proposed Plan would support the goals of the 2017 Clean Air Plan, include all applicable control measures, and would not conflict with its implementation.

The Proposed Plan includes numerous proposed improvements and policies to reduce VMT, increase energy efficiency, and reduce energy consumption. For instance, the Proposed Plan 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. In addition, the Proposed Plan would support green leadership in the city to maintain and expand sustainable building and landscape design, sustainable water use and irrigation practices, and reduced energy use, utilize low-flow shower heads and toilets (as required by CALGreen) and waste diversion programs (consistent with the City’s waste management practices). Future development projects within the Planning Area would provide landscaping which would include planting of trees and drought tolerant plants and shrubs which would reduce emissions associated with lawn and garden equipment. Lastly, stationary sources associated with future development would be subject to the permit authority of the BAAQMD to reduce associated health risks and air quality impacts.

Although the Proposed Plan would reduce the severity of growth-oriented criteria pollutants by fostering bicycle and pedestrian infrastructure, and supporting sustainable land use patterns, including mixed-use design and increased density, individual projects may still generate emissions in excess of the BAAQMD’s project-level thresholds. Accordingly, operational criteria pollutant

emissions associated with development under the Proposed Plan would result in a potentially significant impact on air quality and mitigation would be required.

Despite these features, it is reasonably foreseeable that projects developed under the Proposed Plan would generate emissions in excess of the BAAQMD's project-level thresholds. As shown in Table 2.3-6, a majority of the ROG emissions are generated by area sources, which include architectural coatings. **Mitigation Measure AQ-7** would be implemented, which promotes the use of green consumer products, including low-VOC paints. Reductions achieved by this measure cannot currently be quantified since project developers do not have authority to require such products, although they can be encouraged.

Pursuant to **Mitigation Measure AQ-8**, applicants would be required to conduct a project-level emissions analysis for operations if a proposed project exceeds the operations screening sizes. For project-level analyses that exceed BAAQMD operations thresholds, **Mitigation Measure AQ-7** would be implemented, as well any project-specific mitigation measures. If the proposed project exceeds BAAQMD operations thresholds with incorporation of mitigation measures, **Mitigation Measure AQ-9** would be implemented. **Mitigation Measure AQ-9** is further required to offset operational criteria pollutant emissions resulting from development under the Proposed Plan through the purchase of mitigation credits. Through implementation of **Mitigation Measure AQ-9**, applicants would determine the estimated total emissions for operational activities and the BAAQMD would determine the mitigation fees for each development project's applicant to pay on a pro rata basis to the BAAQMD to offset their pollutant emissions as necessary such that the BAAQMD's daily pollutant thresholds would not be exceeded. Offsetting emissions below the BAAQMD's threshold levels would ensure future development under the Proposed Plan would not contribute a significant level of air pollution such that regional air quality within the SFBAAB would be degraded. Based on recent experience of offsets being feasibly available for other large recent projects in the San Francisco Bay Area, it is reasonable to assume that offset programs will be available in the future and thus that emissions can be reduced below threshold levels. Should offset programs be available for future development, operational criteria pollutant emissions under the Proposed Plan would be less than significant with mitigation. However, because it cannot be concluded that offset programs would always be available in the future at the time and in the amount needed for any given future development, for the purposes of this EIR analysis, operational air quality impacts are conservatively assumed to be significant and unavoidable.

Mitigation Measures

- MM-AQ-7: Promote Green Consumer Products.** For all projects developed within the Planning Area, the City shall require that developer(s) provide education for residential and commercial tenants concerning green consumer products. Prior to receipt of any certificate of final occupancy, the project sponsors shall work with the City of Union City to develop electronic correspondence to be distributed by email to new residential and commercial tenants that encourages the purchase of consumer products that generate lower than typical VOC emissions. Examples of green products may include low-VOC architectural coatings, cleaning supplies, and consumer products, as well as alternatively fueled landscaping equipment.
- MM-AQ-8: Project-Level Air Quality Analysis for Operations.** For all proposed development within the Planning Area, the City shall require project applicants to compare their project size with the BAAQMD screening sizes appropriate to their project for

operational criteria pollutants found in Table 3-1 in the BAAQMD's current CEQA guidelines.⁴⁴

If the project is less than the screening sizes for the project type, then the project is not required to conduct a project-level analysis of operational emissions.

For projects that exceed the operations screening sizes, a project-level air quality analysis would be required to evaluate the project's operational emissions and compare them to BAAQMD daily thresholds for operation. If the project-level analysis results in exceedances of BAAQMD thresholds, **Mitigation Measure AQ-7** shall be implemented. If the project's emissions are reduced to levels below BAAQMD operations thresholds with implementation of all feasible mitigation measures, impacts would be less than significant. If the project still exceeds BAAQMD operations thresholds with mitigation implemented, the project would be required to purchase mitigation credits as described in **Mitigation Measure AQ-9**.

MM-AQ-9: Purchase of Mitigation Credits for Operational Emissions Exceeding the BAAQMD's Daily Pollutant Thresholds. For proposed developments that are estimated to result in exceedances of thresholds with implementation of all feasible mitigation measures, the applicants shall coordinate with a third-party or governmental entity to pay for criteria pollutant offsets for every year in which operational emissions are estimated to exceed the BAAQMD thresholds. If the estimate shows exceedances of multiple criteria pollutants above the BAAQMD thresholds, then offsets must be obtained to address each pollutant above the thresholds. Emission reduction projects and fee will be determined in consultation between the applicant and the third-party or governmental entity and will include offset provider administrative costs. The agreement that specifies fees and timing of payment shall be provided to the City for review and signed by the applicant and the third-party or governmental entity. The emission reductions shall be secured prior to any year in which operational activity is estimated to result in an exceedance. The payment for the emissions can either be on an annual basis or done once upfront prior to operation.

Impact 3.2-3 Implementation of the Proposed Plan would expose sensitive receptors to substantial pollutant concentrations. (*Significant and Unavoidable*)

Sensitive land uses are generally considered to include those uses where an exposure to pollutants could result in health-related risks for individuals. Per the BAAQMD, typical sensitive receptors are residences, hospitals, and schools. Parks and playgrounds where sensitive receptors (e.g.,

⁴⁴ Bay Area Air Quality Management District. 2017. *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: July 1, 2021.

children and seniors) are present would also be considered sensitive receptors.⁴⁵ Sensitive receptors are located throughout the Planning Area at residences, schools, and parks. Development of the Proposed Plan has the potential to expose sensitive receptors to health effects from regional criteria pollutants, localized concentrations of CO, airborne dust containing asbestos, DPM, and PM_{2.5}. These pollutants are addressed separately in greater detail below.

REGIONAL CRITERIA POLLUTANTS

As discussed in Impact 3.2-2, the Proposed Plan would contribute to existing and future air pollution. However, Proposed Plan-generated operational emissions represent a relatively small fraction of daily criteria pollutant emissions in the SFBAAB. ROG, NO_x, PM₁₀, and PM_{2.5} account for 0.06 percent, 0.06 percent, 0.29 percent, and 0.18 percent of SFBAAB daily emissions, respectively.⁴⁶ Given the small size of this contribution, the specific magnitude and location of any potential changes in regional ozone or secondary PM formation, and the associated health consequences, impacts from these additional emissions cannot be quantified with any level of certainty because of the dynamic and complex nature of regional pollutant formation and distribution (e.g., meteorology, emissions sources, sunlight exposure). Similar limitations exist with respect to precisely modeling project-level health consequences of directly emitted PM. However, it is known that public health will continue to be affected in the SFBAAB until the region attains the CAAQS or NAAQS.

LOCALIZED CARBON MONOXIDE HOT SPOTS

Continuous engine exhaust may elevate localized CO concentrations, resulting in hot spots. Receptors exposed to 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.

Peak-hour traffic volumes at six intersections in the Project vicinity were analyzed to determine whether CO emitted by Project-generated traffic would exceed the BAAQMD screening criteria. Maximum traffic volumes at the intersections would be less than the BAAQMD's recommended screening criterion of 44,000 vehicles per hour. Also, intersection traffic volumes under all scenarios would not exceed the screening criterion of 24,000 vehicles per hour that the BAAQMD recommends for areas where vertical and/or horizontal mixing is substantially limited. . The Proposed Project would not result in, or contribute to, a localized concentration of CO that would exceed the applicable NAAQS or CAAQS. This impact would be less than significant.

⁴⁵ Bay Area Air Quality Management District. 2017. *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. Accessed: July 1, 2021.

⁴⁶ SFBAAB ROG, NO_x, PM₁₀, and PM_{2.5} emissions reported in the 2017 Clean Air Plan were 259, 298, 109, and 47 tons per day, respectively. Maximum Proposed Plan-generated ROG, NO_x, PM₁₀, and PM_{2.5} emissions are 313, 331, 624, and 166 pounds per day, respectively, which equates to 0.16, 0.17, 0.31, and 0.08 tons per day, respectively. Bay Area Air Quality Management District. 2017. *Final 2017 Clean Air Plan*. Adopted April 19. Available: http://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf. Accessed: July 1, 2021.

TOXIC AIR CONTAMINANTS

Asbestos

Asbestos is a naturally occurring mineral that was previously used in building construction because of its heat resistance and strong insulating properties. Exposure to airborne dust containing asbestos, however, has been shown to cause many disabling and fatal diseases, including lung cancer, mesothelioma, and pleural plaques. Demolition of existing structures results in particulates that may disperse asbestos-containing materials (ACM) to adjacent sensitive receptor locations. ACM were commonly used as fireproofing and insulating agents prior to the 1970s. The U.S. Consumer Product Safety Commission banned use of most ACM in 1977 due to their link to mesothelioma. However, buildings constructed prior to 1977 that would be demolished by the development supported by the Proposed Plan may have used ACM and could expose receptors to asbestos, which may become airborne with other particulates during demolition.

All demolition activities would be subject to EPA's asbestos national emissions standard for hazardous air pollutants (NESHAP) if asbestos is present at the existing facilities. 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. Consequently, regulatory mechanisms exist that would ensure that impacts from ACM, if present during demolition under the Proposed Plan, would be less than significant.

Diesel Particulate Matter and Localized PM_{2.5}

Construction

Construction activities of future development projects under the Proposed Plan would generate DPM and PM_{2.5} that could expose sensitive receptors within 1,000 feet of the Planning Area to significant health risks. Accurately quantifying DPM concentrations and predicting associated health risks (e.g., excess cancer cases) requires detailed site-specific information on the locations of specific construction activity, and specific details on the timing and locations of individual equipment and vehicles are currently unavailable. Without specific details on the locations of building footprints or their construction schedules, a quantitative evaluation of potential health risk impacts is not possible. Depending on the size and scale of an individual development project, along with its construction schedule and proximity to receptors, there may also be instances where DPM emissions could result in cancer or non-cancer health risks that exceed the BAAQMD's thresholds, resulting in a potentially significant impact. Implementation of **Mitigation Measure AQ-2** through **Mitigation Measure AQ-4** would reduce both DPM and exhaust and fugitive PM_{2.5} emissions during construction activities. Even with these mitigation measures, the extent of the reductions from mitigation are unknown at this time. Therefore, health risks from construction-related DPM and PM_{2.5} emissions from construction activities could expose receptors to cancer and non-cancer risks in excess of the BAAQMD significance thresholds and would be potentially significant.

Operations

Development under the Proposed Plan may result in the installation or operation of new stationary sources of TACs (e.g., emergency generators). Although it is unknown what specific sources would be installed or where they would operate, 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 (such as a new generator) that results in an operational cancer risk in excess of 10.0 cases per million or a hazard index in excess of 1.0. Consequently, regulatory mechanisms exist that would ensure that cancer and health hazard impacts from stationary sources developed under the future projects would be less than significant, but may not be sufficient to address PM_{2.5} impacts if the source results in significant PM_{2.5} concentrations.

Existing stationary sources within 1,000 feet of the Planning Area include generators and gasoline dispensing facilities. Upon anticipated buildout of the Proposed Plan in 2040, road segments within 1,000 feet of the Planning Area, including Decoto Road, Alvarado-Niles Road, 7th Street and 11th Street, would have an ADT greater than 10,000 vehicles per day and would be considered high volume roadways. Furthermore, Union Pacific Railroad and the BART tracks located in the center of the Planning Area could contribute TAC and PM_{2.5} emissions within the Planning Area. Implementation of the Proposed Plan ultimately would result in the net new development area of up to 3,930 residential units, 4,767,000 sf of office use, and 133,000 sf of retail use in 2040⁴⁷, the increase in traffic levels from the Proposed Plan would exacerbate existing cumulative health risks. Consequently, both new and existing receptors near these stationary sources and roadways may be exposed to significant health risks from TACs and impacts are potentially significant.

Even with the Proposed Plan's policies and mitigation measures, additional emissions generated by new stationary sources, vehicle trips, and construction activity could expose receptors to cancer and non-cancer risks excess of the BAAQMD significance thresholds. **Mitigation Measure AQ-10** is therefore required to provide a project-level evaluation of construction- and operational-related health risks from future projects within 1,000 feet of sensitive receptors. **Mitigation Measure AQ-11** would reduce TAC and PM_{2.5} exposure to future sensitive receptors but not for receptors at land uses that have already been constructed. Because risks associated with additional vehicle traffic are the result of personal transportation decisions, there is no feasible mitigation beyond **Mitigation Measure AQ-11** to address this impact. In addition, **Mitigation Measure AQ-11** would not apply to existing sensitive receptors that are present before new construction or operational activity commences. Therefore, after mitigation, this impact would be significant and unavoidable.

Mitigation Measures

MM-AQ-10: Require Future Projects Located within 1,000 Feet of Receptors to Perform a Health Risk Assessment. The City shall require that all applicants proposing development of projects within the Planning Area and within 1,000 feet of existing sensitive receptors, as defined by the BAAQMD, shall prepare a site-specific health risk assessment (HRA). If the HRA demonstrates, to the satisfaction of the City, that the health risk exposures for adjacent receptors will be less than the BAAQMD

⁴⁷ The air quality modeling analysis was conducted based on the development anticipated at that time. Although the net amount of development has since changed, the air quality analysis represented in this section is conservative, because it assumes a greater amount of net development than may actually occur.

project-level and cumulative-level thresholds, then additional mitigation would be unnecessary. However, if the HRA demonstrates that health risks would exceed the BAAQMD project-level or cumulative-level thresholds, additional feasible on- and off-site mitigation shall be analyzed by the applicant to help reduce risks to the greatest extent practicable.

MM-AQ-11: Require Air Quality Equipment to Minimize Health Risks. The City shall require that all applicants proposing development of projects within the Planning Area that includes new development of residential projects and other new land use developments which would site new sensitive receptors such as schools and daycares in commercial buildings and within 1,000 feet of road segments with an ADT of greater than 10,000 vehicles per day, to install indoor air quality equipment, such as enhanced air filters (air filters rated at a minimum efficiency reporting value [MERV] 13 or higher) or equivalent mechanisms, to minimize health risks for future receptors.

Significance after mitigation: Significant and unavoidable

Impact 3.2-4 Implementation of the Proposed Plan would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. (*Less than Significant*)

Although offensive odors rarely cause physical harm, they can be unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and air districts. According to the BAAQMD, land uses associated with odor complaints typically include wastewater treatment plants, landfills, confined animal facilities, composting stations, food manufacturing plants, refineries, and chemical plants.⁴⁸ Odor impacts on residential areas and other sensitive receptors, such as hospitals, day-care centers, and schools, warrant the closest scrutiny, but consideration should also be given to other land uses where people may congregate, such as recreational facilities, work sites, and commercial areas.

Potential odor emitters during construction include diesel exhaust and evaporative emissions generated by asphalt paving and the application of architectural coatings. Construction-related activities near existing receptors would be temporary in nature, and construction activities would not result in nuisance odors. As discussed in Chapter 2, *Project Description*, the Proposed Plan's land use designations include residential, commercial, retail, light industrial, and research and development.⁴⁹ These land uses are not associated with the land uses discussed above. Potential odor emitters during operations would include exhaust from vehicles and fumes from the reapplication of architectural coatings as part of ongoing building maintenance. However, odor impacts would be limited to circulation routes, parking areas, and areas immediately adjacent to recently painted structures. Although such brief exhaust- and paint-related odors may be considered adverse, they would not be atypical of developed urban areas and would not affect a substantial number of people or rise to the level of a significant impact under CEQA. In addition,

⁴⁸ Bay Area Air Quality Management District. 2017. *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: July 1, 2021.

⁴⁹ Light industrial and research-and-development land uses are located in the Station East subarea.

future developments within the Planning Area would comply with the General Plan's Policy RC-5.4, which would require all businesses to minimize odors generated by the business so that the odors are not detectable off-site. Because the Proposed Plan would not result in a new, substantial, or long-term source of odors, this impact would be less than significant.

Mitigation Measures

None required.

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3.3 Biological Resources

This section describes the environmental and regulatory setting for biological resources. It also describes impacts related to biological resources that would result from implementation of the Proposed Plan and mitigation for significant impacts where feasible and appropriate. The section describes existing biological resources in the Planning Area, including habitats, wetlands and other waters, critical habitat, and special-status species, as well as relevant federal, state, and local regulations and programs. Appendix D includes lists of the special-status wildlife, fish, and plant species with potential to occur in the Planning Area.

There were seven responses to the Notice of Preparation (NOP) regarding topics covered in this section. The Friends of Save the Union City Hills submitted comments regarding prioritizing steelhead trout habitat, preserving and restoring Old Alameda Creek and its connection to Alameda Creek, conserving the Gateway subarea and creating a conservation area, and re-establishing riparian corridors. One comment from an individual requested preservation of Old Alameda Creek. One comment from Save Our Hills requested restoration of Old Alameda Creek, habitat for steelhead habitat, and the creation of riparian habitat. A comment from another individual requested an environmental assessment. These comments are addressed in Impacts section and incorporated into the following analysis.

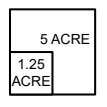
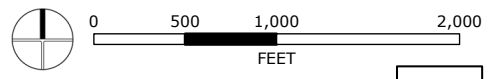
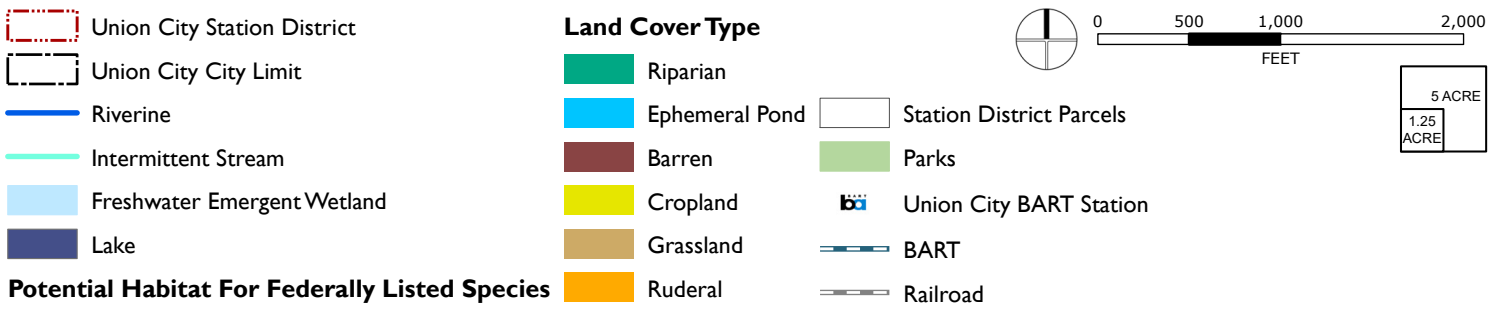
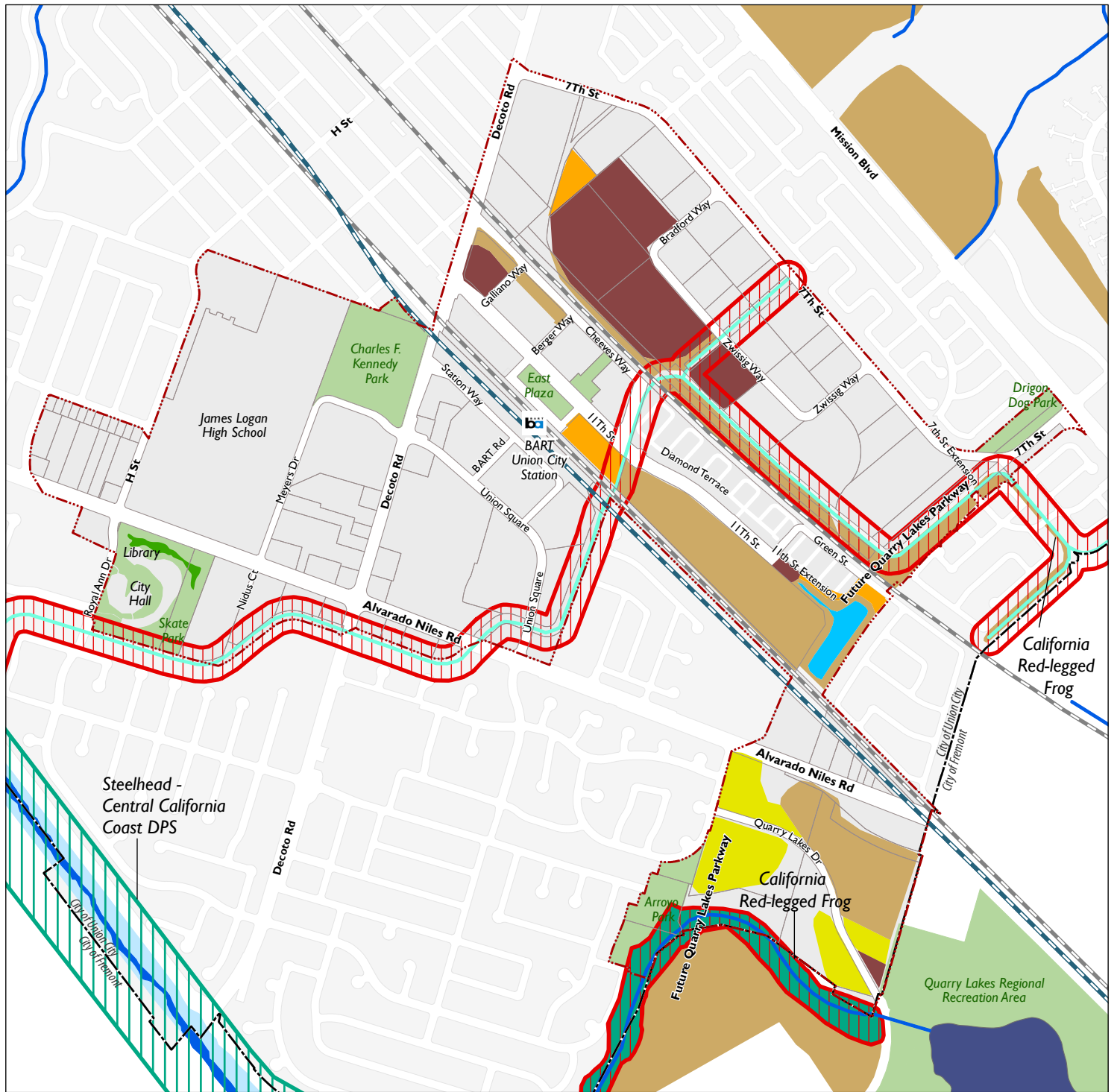
Environmental Setting

PHYSICAL SETTING

Habitat Types

The Planning Area is characterized by a mix of urban development with mature landscaping, agricultural uses, annual grassland, and riparian woodland. Aquatic resources in the Planning Area include the Alameda Creek tributary, unnamed channels, an ephemeral pond, and freshwater ponds. The Alameda Creek tributary is considered a riverine feature; the two channels are considered intermittent streams. The value of an area to wildlife depends on a number of physical and biological factors, including the quality of the remaining habitat and extent of protective cover, the location relative to other land uses, and the uniqueness of the habitat within a regional context. The habitat types discussed below have been identified within the Planning Area; wetlands and other water features were identified from the National Wetland Inventory (U.S. Fish and Wildlife Service, 2020). These classifications and descriptions generally follow the California Wildlife Habitat Relationships System to identify vegetative communities and potentially associated wildlife. Although the classifications may not be completely accurate with respect to identifying exact species or conditions on the ground, they do provide useful information regarding what is likely to be found and are a starting point for further site-specific study associated with individual projects. Habitat types are shown in Figure 3.3-1.

Figure 3.3-1 Habitat and Biological Resources in the Vicinity of the Planning Area



Source: ICF, 2021; California Natural Diversity Database, 2021; City of Union City, 2020; Alameda County GIS, 2020.

Annual Grasslands

Annual grasslands are located within the central and southern portions of the Planning Area. Vegetation in annual grasslands consists primarily of nonnative annual grasses, which can include soft chess (*Bromus hordeaceus*), ripgut brome (*B. diandrus*), wild oats (*Avena* spp.), and Italian ryegrass (*Festuca perennis* [*Lolium multiflorum*]). Native perennial grasses, native forbs, and nonnative forbs also occur in grasslands. The representative native species that are known to occur in grasslands are purple needlegrass (*Nassella pulchra*), butter-and-eggs (*Triphysaria eriantha*), and California poppy (*Eschscholzia californica*).

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*), white-tailed kite (*Elanus leucurus*), great horned owl (*Bubo virginianus*), western meadowlark (*Sturnella neglecta*), and turkey vulture (*Cathartes aura*) forage in annual grasslands. Burrowing owl (*Athene cunicularia*) and coyote (*Canis latrans*) may use these areas for denning and foraging.

Cropland

Cropland is located within the southern portion of the Planning Area. Cropland includes small-scale corn and hay fields as well as fallow fields. The conversion of land for agricultural use results in the removal of historical native habitat. Cropland generally does not support the wildlife density and diversity of most native habitats. However, this land cover type does support 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, white-tailed kite, northern harrier (*Circus cyaneus*), great horned owl, and other migratory and resident birds, such as Brewer's blackbird (*Euphagus cyanocephalus*), red-winged blackbird (*Agelaius phoeniceus*), American crow (*Corvus brachyrhynchos*), western meadowlark, mourning dove (*Zenaidura macroura*), and rock dove (*Columba livia*). Mammals are known to occur in all types of agricultural lands. The species include coyote, gray fox (*Urocyon cinereoargenteus*), black-tailed jackrabbit (*Lepus californicus*), California ground squirrel, Botta's pocket gopher, deer mouse, and California vole. Reptiles such as western fence lizard (*Sceloporus occidentalis*), gopher snake (*Pituophis catenifer*), and California kingsnake (*Lampropeltis getula californica*) may also be found in association with cropland areas.

Ephemeral Pond

One ephemeral pond is within the Planning Area. The pond appears to be a stormwater detention basin that receives overflow from a culvert connected to an intermittent stream to the northeast. The ephemeral pond is mapped as an open water feature; however, it does support some short-statured seasonal wetland vegetation within the pond.

When the ephemeral pond does maintain a suitable water level, it provides aquatic habitat for western pond turtle (*Emys marmorata*), Sierran tree frog (*Pseudacris sierra*), California toad (*Anaxyrus boreas halophilus*), and California red-legged frog (*Rana draytonii*).

Intermittent Stream

Two intermittent streams are within the Planning Area. These unnamed drainageways, which are tributaries to Alameda Creek, converge to convey flows from eastern hill slopes. The streams have been channelized, with channel widths generally measuring between 15 and 20 feet. The soil bottom, or bed, portion of the features supports short-statured emergent vegetation, including common knotweed (*Persicaria lapathifolia*), bittercress (*Cardamine oligosperma*), salt grass (*Distichlis spicata*), willow herb (*Epilobium ciliatum* ssp. *ciliatum*), and common horsetail (*Equisetum arvense*). Along the sloped banks of the features are mature trees, including gum (*Eucalyptus* sp.) and northern California black walnut (*Juglans hindsii*). The intermittent streams have the most water during the wet season, and pools may remain inundated into late summer. The intermittent streams join Alameda Creek, which is approximately 0.5 mile southwest of the Planning Area.

The intermittent streams provide foraging habitat, cover, and a movement corridor for a variety of wildlife species. The streams also provide foraging habitat for common and migratory nesting birds, including, great egret (*Ardea alba*), great blue heron (*Ardea herodias*), and black phoebe (*Sayornis nigricans*). They also provide foraging and movement corridors for common mammals, including raccoon, skunk, and coyote. Western pond turtles and other amphibians, including California red-legged frog, can also use the intermittent streams for aquatic habitat and movement corridors.

Riverine

A small section of Old Alameda Creek is in the southern portion of the Planning Area. This feature appears to receive water in response to outfall from the Quarry Lakes system to the east. It has a mature valley foothill riparian corridor along its banks, which is discussed in detail below. The wildlife species that would be found within or utilizing riverine habitat would be similar to those found in intermittent stream habitat.

Ruderal

Ruderal land 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 undeveloped 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 echinoides*), bull thistle (*Cirsium vulgare*), 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*), and Russian thistle (*Salsola tragus*). Ruderal areas are 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 reflect the characteristics of nearby natural and less-disturbed habitat. However, the dense cover provided by weeds often attracts large flocks of foraging songbirds, which are otherwise absent from the 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*). Ruderal land cover also provides habitat for common reptiles such as western fence lizard, gopher snake, and common garter snake (*Thamnophis sirtalis*).

Urban

Developed and landscaped land cover types include residential, commercial, industrial, transportation, and recreational development (e.g., sites with structures, paved surfaces, horticultural plantings, 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, 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, which, in turn, support habitat for burrowing owl.

Valley Foothill Riparian

Valley foothill riparian is located within the southern portion of the Planning Area and is associated with Old Alameda Creek. The canopy height is approximately 100 feet. The mature riparian forest has a canopy cover of 20 to 80 percent. Most trees in this habitat are winter deciduous. There is a subcanopy tree layer and a sparsely vegetated and disturbed understory. Dominant species in the canopy layer include California sycamore (*Platanus racemosa*), white alder (*Alnus rhombifolia*), and valley oak (*Quercus lobata*). Subcanopy trees include short-statured valley oak, box elder (*Acer negundo*), and buckeye (*Aesculus californica*). The shrub and herbaceous understory is sparsely vegetated because of the homeless community living there. Valley foothill riparian habitats provide food, water, and migration and dispersal corridors. They can also be used for escape, nesting, and protection from extreme temperatures. An abundance of wildlife, including more than 50 species of amphibians and reptiles, more than 140 species of birds, and more than 50 species of mammals, is associated with valley foothill riparian habitats.

Special-Status Species

Special-status species are defined as:

- Species that are listed as threatened or endangered under the U.S. Fish and Wildlife Service (USFWS) Endangered Species Act or designated as candidates for listing;
- Species that are listed as rare (plants), threatened, or endangered under the California Department of Fish and Wildlife (CDFW) California Endangered Species Act or designated as candidates for listing;

- Wildlife species designated as species of special concern or fully protected by the CDFW;
- Plant species with a California Rare Plant Rank (CRPR), 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, online 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 as species with a “moderate” or “high” designation status under CEQA.¹

Information regarding the occurrences of special-status species in the vicinity of the Planning Area was obtained from a query of the CDFW’s California Natural Diversity Database (CNDDDB), the USFWS Information for Planning and Conservation (IPaC) database, and the CNPS Inventory of Rare and Endangered Vascular Plants of California, online edition. The CNDDDB and CNPS queries included a nine-quadrangle buffer around the Planning Area within the Dublin, Hayward, Milpitas, Mountain View, Newark, Niles, Palo Alto, Redwood Point, and San Leandro U.S. Geological Survey 7.5-minute series quadrangles. The IPaC query included the Planning Area. Appendix D includes lists of the special-status wildlife, fish, and plant species with potential to occur in the Planning Area, along with a discussion of their geographic distribution and general habitats. The rationale that explains the determination of potential to occur in the Planning Area is also included.

Based on the records search, seven special-status plant species and nine special-status wildlife and fish species were identified as having the potential to occur in the Planning Area. However, based on habitat suitability, it was determined that one special-status plant species and five special-status wildlife species have moderate potential for occurrence in the Planning Area and no species have high potential for occurrence, as discussed in Table 1 and Table 2 in Appendix D.

The CNDDDB is regularly updated to track occurrences of previously documented special-status species; however, it contains only those records that have been submitted to CDFW. Therefore, there may be additional occurrences of special-status species within the area that have not yet been surveyed and/or mapped. A lack of information in the CNDDDB about a species or an area does not imply that the species does not occur or that there is a lack of diversity in that area. In addition, species shown in Figure 3.3-1 have the potential to occur outside the area delineated in the figure.

Sensitive Habitats

Critical Habitat

Critical habitat is defined by the federal Endangered Species Act as a specific geographic area that contains features essential for the conservation of a threatened or endangered species and may

¹ Western Bat Working Group. 2017. 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: May 27, 2021.

require special management and protection. There is no critical habitat, as designated by the USFWS, within the Planning Area. Designated critical habitats for Alameda whipsnake and California red-legged frog are approximately 0.7 mile east of the Planning Area. Designated critical habitat for western snowy plover is approximately 3.5 miles northwest of the Planning Area.

Wildlife and Habitat Connectivity

The California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California was designed to support land use planning and transportation. The report was produced by a multi-disciplinary team of representatives from 62 agencies, along with a smaller technical advisory team and steering committee. The report includes a statewide essential habitat connectivity map, data collected to delineate areas shown on the map, recommendations for correcting the fragmentation caused by roads, and guidance for developing and implementing local and regional connectivity plans. Analysis was conducted to determine where mitigation would be most effective and how best to enhance connectivity while lessening vehicle/wildlife collisions.² The Planning Area is located between a large natural landscape block to the west and multiple large natural landscape blocks east of Mission Boulevard. Small natural landscape blocks are scattered throughout the Planning Area; Alameda Creek provides a connection between the large natural landscape blocks.

The Planning Area is not within any known regional wildlife movement corridor, as indicated by CDFW's Biogeographic Information and Observations System Habitat Connectivity Viewer.³

Wetlands and Other Waters

Wetlands and other waters are within the Planning Area. Wetlands are areas where water covers the soil or is present either at or near the surface of the soil all year or for varying periods of time during the year, including during the growing season. Water saturation (hydrology) largely determines how the soil develops and the types of plant and animal communities living in and on the soil. Wetlands may support both aquatic and terrestrial species. The prolonged presence of water creates conditions that favor the growth of specially adapted plants (hydrophytes) and promote the development of characteristic wetland (hydric) soils. Other waters encompass feature types that contain or convey water, including marine, estuarine, riverine, and lacustrine features. Wetlands and other waters provide a multitude of ecological, economic, and social benefits. They provide habitat for fish, wildlife, and plants; allow for groundwater recharge; reduce flooding; and support cultural and recreational activities. As discussed within the Regulatory Framework section, technical standards for delineating wetlands and other waters have been developed by the U.S. Army Corps of Engineers (USACE) and the USFWS. Based on existing information from the USFWS National Wetlands Inventory (2021), there are riverine (other water) features within the Planning Area. These features support (or have the potential to support) seasonal wetland

² Spencer, W.D., P. Beier, K. Penrod, K. Winters, C. Paulman, H. Rustigian-Romsos, J. Strittholt, M. Parisi, and A. Pettler. 2010. California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California. Prepared for California Department of Transportation, California Department of Fish and Game, and Federal Highways Administration.

³ California Department of Fish and Wildlife. n.d. Biogeographic Information and Observation System. Version 5.96.99. Available: <https://apps.wildlife.ca.gov/bios/?bookmark=648>. Accessed: May 28, 2021.

vegetation within their beds and riparian vegetation along their banks; however, this does not preclude future identification of wetlands during site-specific studies.

REGULATORY SETTING

Federal Regulations

Federal Endangered Species Act

USFWS and the National Marine Fisheries Service (NMFS) administer the federal Endangered Species Act (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.

Federal Clean Water Act, Section 404

The Clean Water Act (CWA) 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 the State Water Resources Control Board (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 Regulations

California Endangered Species Act

Administered by the CDFW, the California Endangered Species Act (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 Regulations

Union City General Plan (UC 2040)

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

Policy RC-1.1: Provide for a Variety of Open Spaces. The City shall provide a variety of open spaces including open space for public use and enjoyment and for the protection of agricultural uses including grazing, wildlife habitats, and scenic vistas.

Policy RC-1.6: Require Easements Where Appropriate. Where appropriate, conservation or open space easements shall be required of new development in order to provide trail connections and /or protect unique natural features or other environmentally significant resources identified during CEQA review, such as steep hillsides, natural stream courses, or unique plant or animal communities or habitats.

Policy RC-1.7: Explore Methods for Protecting Open Space. The City shall explore various methods for protecting open space resources including, but not limited to, regulation, full acquisition, transfer of development rights, and dedication of open space or conservation easements.

Policy RC-1.8: Protection of Significant Open Space Resources. All significant open space resources (i.e. identified habitat for wildlife and rare, threatened, or endangered plant species, etc.) shall, to the extent feasible be protected or avoided through project design and appropriate mitigation. Removal of vegetation should be minimized, and replanting required to maintain soil stability, prevent erosion, and maximize regeneration. Existing wildlife habitats should be protected in a natural and undeveloped state as part of open space areas and as a means of preserving and attracting wildlife. Depleted habitats adaptable to restoration should also be included as open space where appropriate.

Policy RC-1.9: Limit Development in Open Space Areas. Development within a designated open space area will be permitted only in select areas and will be limited to facilities needed in conjunction with low density recreational areas or select public facilities. Man-made structures shall be subordinate to and not conflict with the quality of the open space. The City shall prohibit inappropriate uses of open space, such as off-road motorized vehicles, to prevent environmental damage and preserve the quality of the open space. Grading, tree removal, or other disturbance within designated open space areas shall only be permitted when plans for such activities have been approved by the City and found necessary for protection or enhancement of the open space, or to provide for safe and enjoyable public use of the open space resource.

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. On sites that have the potential to contain critical or sensitive habitats, or special-species, or are within 100 feet of such areas, the City shall require a site survey by a qualified biologist. Appropriate mitigation measures shall be incorporated into the project as necessary to protect the resources.

Policy RC-2.3: Require Wetland Delineation. A wetland delineation shall be prepared using the protocol defined by the U. S. Army Corps of Engineers for sites with the potential to contain wetland resources. Appropriate mitigation measures shall be incorporated into the project as necessary to protect the resources.

Policy RC-2.4: Ensure Subdivisions Provide for Adequate Buildable Space Outside Critical Biological Areas. The City shall require any project that would create new parcels or lots to demonstrate that the resulting parcels/lots provide for adequate building space outside of critical biological areas and areas inhabited by special-status species.

Policy RC-2.5: Participate in Wetland and River Restoration Efforts. The City shall support regional efforts to restore wetlands ecology and stream and river resources.

Policy RC-2.6: Support Acquisition of Conservation Easements. The City shall cooperate with other public agencies and organizations to acquire conservation easements on privately-owned lands in order to preserve important wildlife corridors and to provide protection of State or Federal special-status species and the habitats they occupy and use.

Policy RC-2.9: Protect Wetlands. The City shall provide signage and strategically locate fences to prevent humans and dogs from adversely affecting wetlands.

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.

Policy RC-3.1 Work with ACFCWCD to Protect Streams and Creeks. The City shall work with the Alameda County Flood Control and Water Conservation District (ACFCWCD) in an effort to restore and protect the natural conditions along stream and creek corridors to improve water quality; provide for enhanced animal, plant, and fish habitats; and provide for additional recreation amenities. Specific actions include:

- a. In areas already disturbed, efforts should be made to restore the natural character including planting of native vegetation to the extent possible.
- b. The development of trails along the corridors should be encouraged, and streamside rest areas should be provided that include indigenous streamside vegetation.
- c. The City shall work with ACFCWCD to establish a schedule for trash and debris removal from their facilities.
- d. New projects for flood and erosion control should be designed to preserve the natural creekside condition where possible. Alteration of streambeds and adjacent vegetation is to be permitted only as a means of erosion or flood control as permitted by the City and in such a manner as to enhance the area within the city.

Union City Municipal Code

Chapter 12.16.170 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.

Impact Analysis

SIGNIFICANCE CRITERIA

For the purposes of this EIR, a significant impact would occur if the Proposed Plan would:

- Criterion 1:** 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 California Department of Fish and Wildlife or U.S. Fish and Wildlife Service;
- Criterion 2:** Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service;
- Criterion 3:** Have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act (including, but not limited to, marshes, vernal pools, coastal areas, etc.), through direct removal, filling, hydrological interruption, or other means;
- Criterion 4:** 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;
- Criterion 5:** Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- Criterion 6:** Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan.

METHODOLOGY AND ASSUMPTIONS

The Proposed Plan's Land Use Diagram (Figure 2.4-1 in Chapter 2, *Project Description*) was compared against existing biological conditions shown in aerial imagery (Google Earth Pro, 2021) to determine potential impacts on biological resources that could result from implementation of the Proposed Plan. Observations were collected from a site visit conducted by ICF biologist Katherine Carpenter on May 25, 2021. No other new field studies or other research were conducted for preparation of this Draft EIR because existing resources contained information on all pertinent aspects of biological resources in the Planning Area at an appropriate level of detail for a program-level environmental assessment. Future project-specific detailed biological surveys may be necessary to confirm the presence or absence of sensitive resources on future development sites. Impacts associated with future development as a result of the Proposed Plan implementation are analyzed qualitatively at a program level.

IMPACTS

Impact 3.3-1 Implementation of the Proposed Plan would have a substantial adverse effect, either directly or through habitat modifications, on 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 or U.S. Fish and Wildlife Service. (Less than Significant with Mitigation Incorporated)

A range of special-status species have been documented in and around the Planning Area, as described above in the Environmental Setting and listed in Appendix D. The majority of the Planning Area is developed and generally does not provide suitable habitat for special-status species. Areas that may provide habitat for special-status species are located primarily in the open space and undeveloped habitat types, including annual grassland, intermittent stream, ephemeral pond, valley foothill riparian, ruderal, and cropland habitats.

As shown in Table 1 in Appendix D special-status wildlife and fish species with potential to occur in the Planning Area include monarch butterfly, California red-legged frog, western pond turtle, burrowing owl, white-tailed kite, migratory birds, and bats. Monarch butterfly has potential to occur throughout the Planning Area where foraging and roosting resources are present. California red-legged frog and western pond turtle are associated with waterways and wetlands and thus have potential to occur in the subareas with intermittent stream, ephemeral pond, and valley foothill riparian areas. Burrowing owl and white-tailed kite are associated with barren, grassland, and cropland and have potential to occur in the Station East, The Core, and Gateway subareas. Migratory birds and bats are associated with areas with foraging, nesting, and roosting habitats present; as with most urbanized environments, landscape features within the Planning Area such as trees, shrubs, parklands, and human-built structures (e.g., bridges, buildings etc.) could serve as habitat for nesting or roosting birds and bats. Migratory birds and bats have potential to occur throughout the Planning Area.

Development under the Proposed Plan is anticipated to take place primarily within the developed footprint of the Planning Area, limiting the potential for adverse impacts on special-status species and sensitive natural communities. However, future development of currently undeveloped habitat under the Proposed Plan could have a significant direct or indirect impact on special-status species if it would result in the removal or degradation of the species or suitable habitat. Habitat in the Station East, The Core, and Gateway subareas would be affected by development facilitated by the Proposed Plan. The Proposed Plan would facilitate the conversion of undeveloped land to urban development. New utilities and infrastructure would be constructed through cropland, annual grassland, and riparian habitat. New construction of infrastructure could require work within riparian vegetation along Old Alameda Creek and possibly waterways in the city, resulting in impacts on riparian and aquatic habitats. These undeveloped habitats could support special-status species, such as California red-legged frog, burrowing owl, migratory birds, and bats. In addition, development facilitated by the Proposed Plan could affect trees and pockets of vegetation in the urbanized areas of the Planning Area. These trees and vegetation may provide suitable habitat for protected biological resources, including migratory nesting birds and bats. If future development were to degrade or remove suitable habitat for special-status species or result in impacts on special-status individuals, there could be significant impacts on special-status

species. This could occur because of construction activities or from ongoing operation and/or maintenance of a project. General Plan Policies RC-1.6, 1.8, 2.1, 2.2, 2.4, and 2.10, which require conservation easements to protect unique plant or animal habitats, biological site surveys to identify sensitive habitat and special-status species, pre-construction nesting bird surveys, and incorporation of appropriate avoidance measures to protect identified resources, would reduce the potential of future development to impact special-status species and their habitats.

As shown on Table 2 in Appendix D, there is one special-status plant species with a moderate potential to occur in the Planning Area, slender-leaved pondweed (*Stuckenia filiformis* ssp. *alpine*). Slender-leaved pondweed is ranked by the CNPS with a CRPR of 2B.2, which are plant species that are rare, threatened, or endangered in California but more common elsewhere. Slender-leaved pondweed is not a federally or state listed plant. The microhabitat for this species includes waterways with emergent wetland vegetation; therefore, this species has the potential to occur in low-flowing areas within intermittent streams. Development facilitated under the Proposed Plan would be subject to the provisions of State and federal natural resources regulations and their respective permitting processes. In addition, the General Plan contains policies that call for the preservation and protection of natural resources. These policies, listed above, would reduce impacts on special-status species and their habitats by requiring separate reviews and evaluations to assess whether sensitive biological resources are present within proposed development areas.

Impacts would be further reduced through **Mitigation Measure BIO-1**, which would require implementation of a worker environmental awareness training program to train construction staff on the needs of protecting sensitive biological resources and the ramifications for not complying with applicable laws. Therefore, with implementation of **Mitigation Measure BIO-1** and adherence to existing policies and local regulations, as discussed above, the impacts of future development under the Proposed Plan on special-status species would be less than significant.

Mitigation Measures

MM-BIO-1: Worker Environmental Awareness Training Program. Where a biologist has identified areas supporting or potentially supporting sensitive biological resources, the City shall require project applicants proposing development projects within the Planning Area to prepare and implement a worker environmental awareness training program prior to equipment staging, ground disturbing activities (e.g., grading, excavation, backfill), or vegetation trimming and removal. The training program should be provided to all construction personnel (contractors and subcontractors) and include the following information:

- The need to avoid effects on sensitive biological resources and the importance of protecting habitat;
- Penalties for not complying with applicable State and federal laws and permit requirements;
- General restrictions and guidelines to be followed by all construction personnel to reduce or avoid effects on sensitive biological resources during construction;

- The life history and habitat requirements of special-status species potentially occurring in or adjacent to the improvements footprint;
- The terms and conditions of the Biological Opinions and other applicable permits; and
- The training program should educate construction supervisors and managers about invasive plant identification and the importance of controlling and preventing the spread of invasive plant infestations.

Significance after mitigation: Less than significant

Impact 3.3-2 Implementation of the Proposed Plan would have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service. (*Less than Significant*)

As shown in Figure 3.3-1, the Planning Area includes valley foothill riparian habitat located along Old Alameda Creek, which is considered a sensitive natural community and habitat for sensitive wildlife species located throughout the Planning Area. Implementation of the Proposed Plan could have a significant impact on riparian habitat or other sensitive natural communities if future development under the Proposed Plan results in the removal or degradation of the habitat.

As discussed under Impact 3.3-1, future development under the Proposed Plan would take place primarily in previously developed portions of the Planning Area, limiting the potential for disruption to undeveloped habitat areas. In addition, areas with sensitive natural communities are located primarily in the open space designations for the Planning Area. Therefore, implementation of the Proposed Plan would not result in the degradation or removal of any riparian habitat identified within the Planning Area.

General Plan Policies RC-1.6, 1.8, 2.1, 2.2, 2.3, 2.4, and 3.1 require biological surveys to identify sensitive natural communities, conservation easements along natural stream corridors, and wetland and stream restoration, which would maintain and/or improve wildlife movement corridors provided by waterways and streams.

With implementation of these policies and adherence to local regulations, as discussed above, the impacts of future development under the Proposed Plan on riparian habitat or sensitive natural communities would be less than significant.

Mitigation Measures

None required.

Impact 3.3-3 Implementation of the Proposed Plan would have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act (including, but not limited to, marshes, vernal pools, coastal areas, etc.) through direct removal,

filling, hydrological interruption, or other means. (*Less than Significant*)

As shown in Figure 3.3-1, the Planning Area includes riverine, intermittent streams, and an ephemeral pond. These features all have the potential to contain wetlands and are considered federally protected, as defined by Section 404 of the Clean Water Act. Implementation of the Proposed Plan could have a significant impact on federally protected wetlands if future development under the Proposed Plan results in the direct removal, filling, hydrological interruption, or otherwise degradation of the habitat.

As discussed under Impact 3.3-1, future development under the Proposed Plan would take place primarily in previously developed portions of the Planning Area, limiting the potential for disruption to undeveloped habitat areas. In addition, the Proposed Plan does not propose any new development in these areas. Therefore, implementation of the Proposed Plan would not result in the degradation or removal of any wetland habitat identified within the Planning Area. Future development under the Proposed Plan would be subject to the requirements of Clean Water Act Section 404 and 401 permitting requirements, which would limit and/or mitigate impacts from projects that would discharge pollutants or dredged or fill materials into waters of the state, including wetlands. Future development would also be subject to the CDFW Lake and Streambed Alteration Program, which would require any project that could substantially divert or obstruct the flow of, substantially change or use any material from, or deposit debris into a river, stream, or lake to agree to measures that would protect existing fish or wildlife resources.

General Plan Policies RC-1.6, 1.8, 2.1, 2.2, 2.3, 2.4, and 3.1 require biological surveys, a wetland delineation, conservation easements along natural stream corridors, and wetland and stream restoration, which would maintain and/or improve wildlife movement corridors provided by waterways and streams. With implementation of these policies and adherence to local regulations, as discussed above, impacts of future development under the Proposed Plan would be less than significant in regard to direct removal, filling, hydrological interruption, or other means of degradation of wetland habitat.

Mitigation Measures

None required.

Impact 3.3-4 Implementation of the Proposed Plan would not 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*)

Intermittent stream and Old Alameda Creek may serve as aquatic movement corridors for fish species. Old Alameda Creek, when inundated and hydrologically connected to Alameda Creek, could be used by central California coast steelhead or other migratory fish. The Planning Area's intermittent stream and valley foothill riparian habitat may provide movement corridors for aquatic and riparian species, such as California red-legged frog and western pond turtle. The Proposed Plan includes the development of the future Quarry Lakes Parkway, which would bisect Old Alameda Creek. In addition, infill development could require construction of upgraded or new utilities and infrastructure, which could result in impacts on waterways and streams.

Contiguous undeveloped areas and cropland may serve as wildlife movement corridors for common and special-status terrestrial wildlife in the Planning Area.

Implementation of the Proposed Plan would have a significant impact on migratory species, corridors, or nursery sites if the siting, construction, or operation of development allowed under the Proposed Plan would impede on or remove migratory corridors or nursery sites. However, General Plan Policies RC-1.6, 2.4, and 3.1, listed above, require conservation easements along natural stream corridors in new development and support wetland and stream restoration, which would maintain and/or improve wildlife movement corridors provided by waterways and streams. In addition, Policies RC-1.4 and 2.6 would facilitate the conservation of lands to preserve important wildlife corridors and connect open space networks, which would facilitate terrestrial wildlife movement. However, as discussed under Impact 3.3-1, structures and trees in the Planning Area could provide nesting habitat for native wildlife—specifically, bats and native resident and migratory birds, thereby potentially affecting native wildlife nurseries. With implementation of General Plan Policies RC-1.6, 2.4, and 3.1, which require surveys for special-status species and migratory birds and would reduce the potential of future development 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, impacts would be less than significant. In addition, as discussed under Impact 3.3-3, future development under the Proposed Plan would be subject to the requirements of Clean Water Act Section 404 and 401 permitting requirements, which would limit and/or mitigate impacts from projects that would discharge pollutants or dredged or fill materials into waters of the state, including wetlands. Future development would also be subject to the CDFW Lake and Streambed Alteration Program, which would require any project that could substantially divert or obstruct the flow of, substantially change or use any material from, or deposit debris into a river, stream, or lake to agree to measures that would protect existing fish or wildlife resources.

Future development within the Planning Area would be subject to the General Plan resource conservation goals related to biological resources and various policies for preserving and protecting open space; preserving natural resources, including plant, animal, and fish habitats; protecting wetlands; participating in river restoration efforts; and protecting and enhancing streams and creeks. Compliance with these policies would ensure the preservation of natural resources in the Planning Area and impacts would be less than significant.

Mitigation Measures

None required.

Impact 3.3-5 Implementation of the Proposed Plan would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. (*Less than Significant*)

The Union City Municipal Code, Chapter 12.16, is the City’s tree ordinance and the only local policy or ordinance applicable to Impact 3.3-5. Compliance with the City’s tree ordinance would ensure that impacts of the Proposed Plan on any local policies protecting biological resources would be less than significant.

Mitigation Measures

None required.

Impact 3.3-6 Implementation of the Proposed Plan would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan. (No Impact)

There are no natural community conservation plans within the Planning Area.⁴ One habitat conservation plan, the Pacific Gas and Electric (PG&E) Bay Area Operational and Maintenance Habitat Conservation Plan, encompasses the Planning Area (USFWS 2018); however, the habitat conservation plan is applicable only to PG&E actions. The Planning Area is within the boundaries of the East Bay Regional Conservation Investment Strategy (RCIS).⁵ The RCIS, a voluntary, non-regulatory regional planning process, is intended to result in higher-quality conservation outcomes; it includes an advanced mitigation tool. The RCIS identifies conservation and enhancement opportunities that, if implemented, will assist declining and vulnerable species in the East Bay by protecting, creating, restoring, and reconnecting habitat; the plan may also contribute to adaptation to climate change and resiliency.

The Planning Area is immediately north of the boundaries of the Santa Clara Valley Habitat Conservation Plan/Natural Community Conservation Plan expanded study area and permit area for burrowing owl conservation.⁶ The Santa Clara Valley Habitat Conservation Plan/Natural Community Conservation Plan covers private development and public projects, primarily within south Santa Clara County but also a small portion of Alameda County. Therefore, no habitat conservation plans or natural community conservation plans are applicable to the Proposed Plan. The Proposed Plan would not conflict with an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan. There would be no impact.

Mitigation Measures

None required.

⁴ CDFW. 2021. Natural Community Conservation Planning (NCCP). California Regional Conservation Plans Map. <<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=68626&inline>>. Accessed: May 31, 2021.

⁵ CDFW. 2021. Regional Conservation Investment Strategies Program. <<https://wildlife.ca.gov/conservation/planning/regional-conservation>>.

⁶ ICF International. 2012. Santa Clara Valley Habitat Plan. Final August 2012. <<https://www.scv-habitatagency.org/178/Santa-Clara-Valley-Habitat-Plan>>.

3.4 Cultural and Tribal Cultural Resources

This section describes the environmental and regulatory setting for cultural and tribal cultural resources. It also describes impacts related to historic, archaeological, and tribal cultural resources (including human remains) that would result from implementation of the Proposed Plan and mitigation for significant impacts where feasible and appropriate. Cultural resources refer broadly to prehistoric and historic buildings, structures, objects, districts, and sites exhibiting important historical, cultural, scientific, or technological associations. This definition extends to tribal cultural resources which refer to sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe. For the purposes of CEQA, cultural resources are separated into three subcategories: historical resources, archaeological resources, and Native American tribal resources and remains. This section describes the historical setting of the Planning Area as well as the context for cultural resources in the Planning Area. Appendix H includes relevant background materials related to cultural resources and consultation.

There were eleven responses to the Notice of Preparation (NOP) regarding topics covered in this section. The Native American Heritage Commission (NAHC) provided a brief summary of portions of Assembly Bill (AB) 52 and Senate Bill (SB) 18 as well as the NAHC's recommendations for conducting cultural resources assessments. In accordance with the NAHC's comment letter, a summary of AB 52 and SB 18 is included in the Regulatory Settings section of this chapter and the NAHC's recommendations for conducting cultural resources assessments are incorporated into the following analysis. Ten individuals and representatives of organizations provided comments stating their preference for preserving the historic-era farming operations in the Gateway subarea of the Planning Area, the Silva Farm and the Peterson Farmhouse. Some comments referred to the Silva Farm as the Ramirez Farm and the Peterson Farmhouse and the Peterson Ranch. Both resources are addressed under the Historic Architectural Resources in the Environmental Setting section and incorporated into the following analysis.

Environmental Setting

GEOLOGIC SETTING

The Planning Area ranges in elevation from approximately 50 feet above mean sea level (msl) in the western portion of the Planning Area to approximately 63 feet above msl in the eastern portion of the Planning Area.¹ The Planning Area is located on alluvial plains below the western foothills of Walpert Ridge of the Coast Range Geomorphic Province.² Landform analysis indicates

¹ ENGEO. 2016. *Phase I Environmental Site Assessment – Zwissig Way Parcels, Union City, California*. April.

² 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-*

the Planning Area 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 Planning Area have been identified and mapped as Pleistocene (Qpaf) and Holocene (Qhaf) alluvial fan deposits, and basin fill deposits as (Qhb).³

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).

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.⁴ 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.⁵ 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,”⁶ and new bone tools appeared for the first time, including barbless fish spears, elk femur spatula, tubes, and whistles, as did coiled basketry manufacture.⁷ The Upper Middle Period (Late

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*.

³ 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.

⁴ 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.

⁵ 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.

⁶ 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.

⁷ 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.

Upper Archaic, A.D. cal 430–1050) experienced the abandonment of many sites from the previous period, and single-barbed bone fish spears, ear spoons, and large mortars were developed.⁸

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.⁹ 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.¹⁰ 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.¹¹

ETHNOGRAPHIC SETTING

The Planning Area 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.¹²

The vicinity of the Planning Area 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.¹³

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. Waterfowl 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

⁸ 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.

⁹ Fredrickson, D. A. 1973. *Early Cultures of the North Coast Ranges, California*. Ph.D. dissertation. Department of Anthropology, University of California, Davis.

¹⁰ Fredrickson, D. 1984. The North Coastal Region. In *California Archaeology*, pages 471–528. M. Moratto (ed.). Academic Press, Orlando, FL.

¹¹ 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.

¹² 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.).

¹³ 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.

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, waterfowl, 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.¹⁴

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.

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.¹⁵

On November 4, 1769, a Spanish expedition led by Gaspàr de Portolà crossed the Coast Ranges on its way north from Monterey. The 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; the people of Ssalson took them into their village and feasted with them.¹⁶

¹⁴ 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).

¹⁵ 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).

¹⁶ 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.

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 1797.¹⁷ 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.¹⁸ 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.¹⁹

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 few decades, there was a partial return to aboriginal religious practices, particularly shamanism, and some return to food collection as a means of subsistence.²⁰ 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.²¹

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

¹⁷ 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.

¹⁸ 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.

¹⁹ 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.

²⁰ 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.

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

descendants incorporated as the Ohlone Indian Tribe and now hold title to the Ohlone Indian Cemetery in Fremont.²² 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.²³ In 1846, farmer John Horner arrived from New Jersey at the location of present-day Union City. He purchased land from Rancho San Miguel to farm wheat and also opened a general store in a vacant building at Mission San José. In addition to his general store, Horner built wharves and warehouses on Alameda Creek for shipping agricultural goods. His involvement led to further settlement in the area. Horner was a practicing Mormon and soon other Mormon family members and farmers arrived in his stead.

According to the Union City General Plan (UC 2040), Horner set out in 1851 to establish a town grid at the approximate location of today's Union City Boulevard, Smith Street, and Alvarado Boulevard 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.²⁴ Union City soon developed commercial businesses, including a saloon, several boarding houses and hotels, and factories.²⁵

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.²⁶

Decoto, north of Union City, was established by French Canadian Ezra de Coteau (anglicized to Decoto), who moved to California for the Gold Rush.²⁷ Decoto and his two brothers purchased 334 acres of land in 1867 to capitalize on railroad speculation in the area. Once the Central Pacific Railroad right-of-way was confirmed, Decoto and brothers sold their land to the Decoto

²² 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.

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

²⁴ Ibid.

²⁵ 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

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

²⁷ 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.

Land Company incorporated in 1870.²⁸ 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. 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, leading to strong Chicano Movement presence in the area during the 1970s.²⁹

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.³⁰ 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 6,000.³¹

The Bay Area Rapid Transit (BART) system, conceptualized in the 1950s and constructed during the 1960s and 70s, included a station in Union City when it opened to the public in 1972.³² The BART transbay tube opened in 1974, effectively solidifying the community's role as a working class bedroom community within easy commuter distance of the nearby metropolitan centers of San Francisco and Oakland, and quickening Union City's transition from a mix of semi-rural agricultural and industrial uses to residential and community development. The population of Union City had grown to more than 70,000 in 2014.³³

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 known as the Southern Pacific Railroad (SPRR). By 1877, the SPRR extended to Arizona, and by 1883 the SPRR connected to existing railroads that ran through New Mexico and Texas and terminating in New Orleans. This cross-continental railroad web was known

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

²⁹ 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.

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

³¹ Ibid.

³² "BART Chronology," <https://web.archive.org/web/20131013054420/http://www.bart.gov/docs/BARTHistory.pdf>. Accessed: June 2021.

³³ "About Union City" <https://www.unioncity.org/150/About-Union-City>, Accessed June 2021.

collectively as the Central Pacific system. Between 1884 and 1885, the SPRR incorporated and absorbed the Central Pacific Railroad by leasing its infrastructure.³⁴

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."³⁵ 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 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, including in Union City.³⁶

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.³⁷ 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 spurs that intersect with the Planning Area are called the Niles subdivision UPRR. The name refers to the former town of Niles—an area located south of the Planning Area 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.³⁸

Historic Architectural Resources

The Proposed Plan identifies five subareas within the Planning Area: The Core, Station East, The Marketplace, Gateway, and Civic Center (see Figure 2.1-4). The built environment in the subareas is characterized in the following sections. Each section includes a brief description of the historic development in the relevant subarea, a summary table with representative examples of buildings or other types of built properties located therein, and a second table including photos of age-eligible resources.

According to a search for records of historical resources conducted by the Northwest Information Center (NWIC) at Sonoma State University in 2021, the Planning Area does not contain any recorded extant historic architectural resources. One record was returned that indicated that the ruins of the Pacific States Steel Corporation steel mill (built c. 1937) was located in The Core

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

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

³⁶ *Ibid.*, 28.

³⁷ 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.

³⁸ 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.

subarea, but the buildings, structures, machines and other debris that formed the ruins have been removed or relocated since that time and the property has been developed for residential use. Additional outreach uncovered documentation completed by the California Department of Transportation (Caltrans) in 2020 that determined the Peterson Farmhouse is eligible for listing in the National Register (see Gateway subarea discussion for details).

ICF historians and architectural historians conducted a windshield survey of the Planning Area on May 20, 2021. The survey included field verification of potential resources within the subareas, and documentation via photographs and written fieldnotes. The methodology for photographic documentation involved recording representative examples of the buildings that capture the character of each subarea's architectural character and photos of buildings and structures that appear to have been built more than 45 years ago.

During the windshield survey ICF historians and architectural historians identified ten age-eligible (built more than 45 years ago) buildings within the Planning Area. The buildings are located within the Station East, The Core, Civic Center, and Gateway areas. No age-eligible buildings were recorded within The Marketplace subarea.

The Core

The Core subarea is located in the center of the Planning Area and includes the Union City Intermodal Station, including the Union City BART station, and is bisected by the rail tracks. Historically, the subarea included a mix of industrial uses, including the SPRR tracks and the Pacific States Steel Corporation steel mill (non-extant). The area has been heavily developed with dense residential complexes in recent decades and little to none of its former character remains intact. The only age-eligible property located within The Core area includes the BART station. It was planned and built as part of the original BART system and opened in 1972. The building included a mosaic by Bay Area artists Jean Varda and Alfonso Pardiñas.³⁹ The building and site have been improved over time, and Union City is currently in the process of constructing a pedestrian bridge on the north side of the railroad tracks. The station has not been previously evaluated for individual historic significance or as part of a regional transit system.

The built environment within The Core includes high-density residential buildings in a variety of contemporary styles, a cluster of commercial/office buildings, one public park, large parking lots associated with the transit station and parking for residents and visitors to the area, and vacant parcels. The properties east of the Intermodal station were built between 2006 and present day, including two large surface parking lots, two apartment complexes, a large development of townhomes, and a public park. Properties west of the Intermodal Station were constructed between 1979 and present day. Most of the buildings were constructed within the past 20 years apart from a single-story commercial building located near the intersection of Decoto Road and Union Square (which is also a road, not a traditional "square"). Other properties include two other commercial/office buildings, surface parking for the transit station, and two apartment complexes. Table 3.4-1 provides a cross section of the types of properties present. Table 3.4-2 provides a list of parcels containing age-eligible properties.

³⁹ The Eichler Network, "How Bart Got Art," <https://www.eichlernetwork.com/article/how-bart-got-art?page=0,0>. Accessed: June 2021.

Station East

The Station East subarea is located northeast of The Core and consists of largely industrial land uses with some vacant/former agricultural lots. A majority of the parcels are occupied by light industrial buildings that are typically one to two stories tall, and surrounded with associated site facilities and surface paving for loading and parking. Decommissioned UPRR spurs that once serviced various industries are also extant within the area.

The Station East subarea transformed from agricultural use in the middle of the twentieth century into its current industrial use and became known as the Decoto Industrial Park. Following the closure of local canneries by the early 1960s and the Pacific States Steel Corporation facility in ca. 1978, the industrial park area became a prime location for development and speculation.⁴⁰

Construction dates for the parcels that contains buildings and structures in the Station East subarea range from the 1966-2002. Table 3.4-3 provides a cross section of the types of properties present. Three parcels within the Station East subarea with buildings and structures were evaluated for historical significance in 2020 as part of the environmental review for the Station East Residential/Mixed Use Project. They contained the following age-eligible resources: 1) industrial complex at 700 Decoto Road and associated SPRR spur (assessor's parcel number [APN] 87-21-5-2); 2) SPRR spur that forms a Y-shaped parcel with multiple branches (APN 87-21-13-2); and 3) additional SPRR spur track (APN 87-23-10). None of the resources were found to be eligible for listing in the Nation Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR).

⁴⁰ 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.

Table 3.4-1. The Core Built Environment Character (Representative Properties)

<i>APN</i>	<i>Street Address</i>	<i>Build Date</i>	<i>Description</i>	<i>Owner</i>
087 -0019-020-00	1320 Decoto Rd.	2019	Two story, contemporary commercial office space, fronted by surface parking. Building area is 2,361 sq. ft.	Woodstock Bowers LLC
087 -0340-008-00	34588 11 th St.	C. 2016	The Union Flats Apartments. A square plan, four story residential complex, contemporary in style, including a mix of apartments and townhomes surrounding an outdoor commons and pool area. A four-story parking garage faces the rear and is flanked on both sides by the building.	UC Block 3 Associates LP
087 -0340-007-00	1100 Decoto Rd.	C. 2013	Rectangular plan, public park, containing a mounded lawn area and a raised water feature that incorporates public art.	City of Union City
087 -0340-005-00	1100 Decoto Rd.	N/A	Former industrial property, now vacant. Sunken topography that collects water and refuse.	City of Union City
087 -0019-017-00	33 Union Sq.	1990	The Verandas Apartments. A complex containing 11 disconnected three-story residential buildings clustered along a central drive, and one pool house and pool in a shared central common area.	Private owner

Source: Parcelquest.com; Accessed June 2021. APN = assessor's parcel number

Three other parcels within the sub-area contain buildings that were constructed more than 45 years ago (see Table 3.4-4). Though none have undergone evaluation, they share a similar development history to the resources mentioned above and present a low likelihood to be found eligible for listing.

Table 3.4-2. Parcels Containing Age-eligible Properties in The Core Subarea

<i>APN</i>	<i>Name or Address</i>	<i>Build Date</i>	<i>Photo</i>
087 -0019-001-01	Union City BART Station	C. 1972	

Source: Parcelquest.com; Accessed June 2021. Historicaerials.com; Accessed June 2021. Photos by ICF, May 2021.
APN = assessor's parcel number

Table 3.4-3. Station East Built Environment Character (Representative Properties)

<i>APN</i>	<i>Street Address</i>	<i>Build Date</i>	<i>Description</i>	<i>Owner</i>
087 -0021-004-04	33955 7 th Street	C. 1966	Rectangular plan, raised height, light industrial building, with administrative annex. The building area is approximately 36,136 sq. ft.	R&S Manufacturing
087 -0023-037-00	34151 Zwissig Way	C. 1984	One story, administrative or office building facing the street. Two industrial buildings are located at the rear of the lot. The buildings total 9,684 sq. ft.	BOC Enterprises LLC
087 -0023-014-02	34300 Zwissig Way	N/A	Agricultural field totaling 138,956 sq. ft.	Station East Owner II LLC
087 -0023-018-03	34650 7 th Street	C. 1990s	Multiple buildings including agency offices, long-term parking, and associated facilities for repair and maintenance. The buildings total 7,903 sq. ft.	City of Union City

Source: Parcelquest.com; Accessed June 2021.

APN = assessor's parcel number

Table 3.4-4. Parcels Containing Age-Eligible Properties (Not Previously Evaluated) in the Station East Subarea

<i>APN</i>	<i>Name or Address</i>	<i>Build Date</i>	<i>Photo</i>
087 -0021-004-04	33955 7th St.	C. 1966	
<i>*Photo courtesy Google Earth, 2021</i>			
087 -0023-011-00	34015 7th St	C. 1973	
087 -0023-023-00	700 Bradford Way	C. 1973	
<i>*Photo courtesy Google Earth, 2021</i>			

Source: Parcelquest.com; Accessed June 2021. Historicaerials.com; Accessed June 2021. Photos by ICF, May 2021 unless otherwise noted.

APN = assessor's parcel number

The Marketplace

The Marketplace subarea is anchored on the intersection of two major roads within the Planning Area: Decoto Road. and Alvarado-Niles Road. The Marketplace north of Alvarado-Niles Road is composed of two commercial strip malls that include a variety of retail storefronts, restaurants, and grocery stores. All the buildings are one story in height and follow typical auto-oriented, outdoor, shopping center design: linear, multi-mass buildings line the edge of the large parcels towards the rear, facing inward towards expansive surface paving with occasional individual buildings located along the street. The buildings comprising the shopping centers were built between 1977 and 2017. The properties toward Fremont south of Alvarado-Niles Road include two smaller scale strip malls that face the street, a gas station, and a restaurant. The buildings were constructed between 1982 and 2018. Table 3.4-5 provides a cross section of the types of properties present.

No age-eligible buildings or structures are located within The Marketplace subarea.

Table 3.4-5. - The Marketplace Built Environment Character (Representative Properties)

<i>APN</i>	<i>Street Address</i>	<i>Build Date</i>	<i>Description</i>	<i>Owner</i>
087 -0019-016-00	1 Union Sq.	C. 1990	“L” shaped, one story, strip mall containing a Safeway grocery store, a drug store, and multiple restaurants and retail outlets. The mall faces expansive surface parking articulated with rows of trees. The shopping center occupies 16.56 acres	Union Square Investments LP
Multiple	1791 Decoto Rd	Ca. 1981	“L” shaped, one story strip mall containing multiple restaurant and retail outlets, facing surface parking.	El Mercado SPE LLC
087 -0002-155-00	34525 Alvarado-Niles Rd.	1980	One story, fast food restaurant.	Diamond Properties Inc.

Source: Parcelquest.com; Accessed June 2021.

APN = assessor's parcel number

The Gateway

The Gateway subarea is located in the southwest portion of the Planning Area. The subarea contains vacant and open space uses including Arroyo Park. Portions of the subarea have been used and are currently being used for farming operations. A cluster of properties including one residence and several commercial businesses is located along the north side of Alvarado-Niles Road. The commercial operations include RV storage, outdoor storage yards, and two industrial buildings and related facilities.

The subarea also contains two agricultural complexes that pre-date incorporation and appear on aerial photography as early as 1946: Peterson Farmhouse and the Silva Farm. The complexes include residential buildings and operational outbuildings and are set within active agricultural fields. Both complexes (comprised of four parcels) are owned by the City of Union City. Previous study by Caltrans determined that the agricultural complex known as the Peterson Farmhouse (APN 087-0021-004-04) was in operation as early as the 1880s and is eligible for listing in the National Register of Historic Places, making it a historical resource under CEQA.⁴¹ Caltrans also states that the Silva Farm, built in the 1920s, was previously determined *not* eligible for inclusion in the National Register or for registration as a California Historical Landmark, and that the prior determinations remain valid as of July 2020.^{42 43}

The residence located east of Alvarado-Niles Road, within the commercial cluster, is also age-eligible. Historic aerial photography indicates that this home was built as one in a row of approximately seven vernacular residences between 1946-1948. It is possible they functioned as worker housing for the neighboring farms or the steel mill. The residential row remained intact until the late 1960s, when it was mostly demolished and transitioned to its current light-industrial use.⁴⁴ The extant home is the only residence that remains intact from the original row. The adjacent parcels to the east contain industrial buildings that were built throughout the 1970s, and the parcels appear to be under the same ownership and managed as a single property.

All the buildings within this subarea are small-scale and vernacular in design and appear to have been built as early as the 1880s through 2015. Arroyo Park is located along the west-most “leg” of the subarea and appears to have been built in the 1970s. The public park includes tennis courts, two basketball courts, a playground, restrooms, and lawns for passive recreation. Table 3.4-6 provides a cross section of the types of properties present. Table 3.4-7 provides a list of parcels containing age-eligible properties.

Table 3.4-6. The Gateway Built Environment Character (Representative Properties)

<i>APN</i>	<i>Street Address</i>	<i>Build Date</i>	<i>Description</i>	<i>Owner</i>
Multiple	North of Alvarado-Niles Rd.	1969–2015	A cluster of industrial buildings and facilities. The main building was built in 1969 (see photo below), and the most recent addition includes a shed that was built in 2015.	NJ Ventures LLC

Source: Parcelquest.com; Accessed June 2021. Historicaerials.com; Accessed June 2021

APN = assessor’s parcel number

⁴¹ California Department of Transportation, 2020. Pg. 2.

⁴² Ibid. Pg. 3.

⁴³ ICF Jones & Stokes, 2008. Pg. 16.

⁴⁴ Historicaerials.com, accessed June 2021.

The subarea contains only two roads: Alvarado-Niles Road and Quarry Lakes Drive. Alvarado-Niles Road is an arterial street that runs near the north edge of the Gateway subarea. While it is four lanes wide in other subareas, it transitions to a two-lane road in this subarea. A median is lined with mature stone pine trees. Quarry Lakes Drive bisects the subarea and is a two-lane road that connects to the Quarry Lakes Regional Recreation Area to its south.

Civic Center

The Civic Center subarea is located in the western portion of the Planning Area. Previously characterized by agricultural use, the Civic Center subarea was the site of some of Union City's earliest municipal development following incorporation in 1959. Construction on the high school began immediately and the main building was completed in 1960. The track was also laid out that year and remains in its current location. Buildout of the high school facilities continued through the 1960s including ball fields and parking, and multiple additions and facilities have been added to the property since the historic period.


Over the course of the 1960s and 1970s the subarea continued to develop. Construction on Charles Kennedy Park (named for Union City's first Parks and Recreation Director) began sometime between 1968 and 1979. It is possible that construction began more than 45 years ago. The Kennedy Youth Center, located within Kennedy Park, was also completed during this time and displays some mid-century architectural character in its form, though the building was retrofitted as recently as 2018.

Table 3.4-8 provides a cross section of the types of properties present. Table 3.4-9 provides a list of parcels containing age-eligible properties.


Today, the Civic Center includes most of the city's local government offices, including two public parks (William M. Cann Memorial Civic Center and Charles F. Kennedy Park); a complex containing city hall, the public library, and the police station (groundbreaking initiated in 1977); a senior center (n.d.); and school district offices (1981). Most of these buildings are suburban in scale and are typically one story tall with large building footprints. This subarea also includes an apartment complex (1979) and a church (1987).

Table 3.4-7. Gateway Subarea Parcels Containing Age-Eligible Properties

<i>APN</i>	<i>Name or Address</i>	<i>Build Date</i>	<i>Photo</i>
087-0021-004-04	Peterson Farmhouse/ Peterson Ranch	C. 1880s	 <p><i>*Photo courtesy California Department of Transportation 2020.</i></p>
087 -0011-017-06	Ramirez Farm/Silva Farm (main residence pictured)	Early 20 th century	

087 -0011- 009-02	35158 Alvarado- Niles Rd.	C. 1946	
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*Photo courtesy Google Earth, 2021

087 -0011- 010-02	35194 Alvarado- Niles Rd.	C. 1969 (the shed addition on the right was added C. 1978)	
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Source: Parcelquest.com; Accessed June 2021. Historicaerials.com; Accessed June 2021. Photos by ICF, May 2021 unless otherwise noted.

APN = assessor's parcel number



Table 3.4-8. The Civic Center Built Environment Character (Representative Properties)

APN	Street Address	Build Date	Description	Owner
486 -0051- 005-00	1501 Decoto Rd.	C. 1979	Garden apartment complex containing 15 two story, wood frame, multi-unit buildings in two clusters separated by a central drive. Car ports for resident parking line the edges of the parcel. The lot totals 7.2 acres.	Lincoln Decoto Associated Limited
486 -0099- 006-00	34201 Alvarado Niles Rd.	C. 1987	Rectangular plan, single story, church building with a gabled roof, with an area of 14,930 sq. ft. The church is fronted by a lawn area, and surrounding on the other three sides by surface paving.	Latter Day Saints

Multiple	33917 Syracuse Ave.	C. 1990s	The Dan Oden Swim Complex contains an enclosed outdoor pool, accessed via and administration buildings. The property includes an additional facility in a separate but adjacent building.	New Haven Unified School District
486 -0099- 005-05	34007 Alvarado- Niles Rd.	C. 1977	Two buildings containing governments services, including the Union City Library, the police station, and government offices. The buildings are set with a public park that includes a lake, a skate park, and an arboretum. A driveway terminating in a parking lot curves through the middle of the property. The parcel totals 9.87 acres.	City of Union City

*Source: Parcelquest.com; Accessed June 2021. Historicaerials.com; Accessed June 2021.
APN = assessor's parcel number*

Table 3.4-9. Parcels Containing Age-eligible properties in the Civic Center Subarea

<i>APN</i>	<i>Name or Address</i>	<i>Build Date</i>	<i>Photo</i>
486 - 0051-002- 09	Charles Kennedy Park, including the Kennedy Youth Center (pictured)	C. 1970s	
486 - 0051-004- 02	Logan High School	C. 1960	

**Photo courtesy Google Earth, 2021*

*Source: Parcelquest.com; Accessed June 2021. Historicaerials.com; Accessed June 2021. Photos by ICF, May 2021 unless otherwise noted.
APN = assessor's parcel number*

RECORDS REVIEW

The records review includes cultural studies and archaeological studies. A records search conducted at the Northwest Information Center indicated that one destroyed archaeological site was found within the Planning Area (Table 3.15-10) and three sites were found within 0.5 mile of the Planning Area. Thirty-nine cultural resource studies have been conducted in and around the Planning Area (Table 3.15-11).

Table 3.4-10. Previously Recorded Archaeological Resources within the Planning Area

<i>P-Number</i>	<i>Trinomial</i>	<i>Description</i>
C-1299		Pacific States Steel Corporation Steel Mill: This industrial site covered 62.5 acres and comprised ruined timber frame buildings, a water cooling tower, brick ovens, machines, and debris. The plant was in operation from 1938 to 1978 when a fire damaged much of the site. s ⁴⁵ .

Archaeological Resources

CEQA defines unique archaeological resources as an artifact, object or site that can help answer important scientific questions, is an exemplary illustration of its type, or is associated with an important prehistoric or historic event or person (Public Resources Code [PRC], Section 21083.2[g]).

According to the 2021 NWIC records search, the Planning Area contains one recorded prehistoric archaeological resource, one historic-period archaeological resource, and one resource containing both prehistoric and historic-periods archaeological materials.

The analysis of potential cultural resources impacts is based upon a comprehensive records search conducted at the NWIC, located at Sonoma State University on March 8, 2021. The records search included a review of all recorded historic and prehistoric cultural resources within the Planning Area.

One partially recorded archaeological resources was identified within the Planning Area during the records search, but it was destroyed during construction of apartment complexes. The resource (C-1299) was a historical steel mill with many buildings still standing when it was recorded in 1995. Three additional sites were recorded within 0.5 mile of the Planning Area including a prehistoric lithic scatter (P-01-012207), a historic-era trash dump from the Masonic Home dating from 1916 to 1940 (C-1557), and one multi-component site containing both a prehistoric lithic scatter and a historic-era trash dump dating from 1916 to 1940 (C-1556).

⁴⁵ Corbett, M. 1995. Report C-1299, Pacific States Steel Corporation Steel Mill. Preliminary draft on file at NWIC, with additional information from Union City staff.

Table 3.4-1 I. Previously Conducted Cultural Resources Studies in or Adjacent to the Planning Area

<i>Study Number</i>	<i>Author</i>	<i>Date</i>	<i>Title</i>
S-000727	Miley Holman and David Chavez	1977 (Mar)	An Archaeological Reconnaissance of Two New Proposed Waste Water Pipeline Routes, Livermore-Amador Valley Water Management Agency, Alameda County, California
S-000814	Peter Banks and David A. Fredrickson	1977	An Archaeological Investigation of Project #3, Zone 5 and Zone 6 of the Alameda County Flood Control and Water Conservation District
S-002061	Thomas L. Jackson	1977 (Mar)	An Archaeological Reconnaissance of the Area of the Proposed Quarry Lakes Project, Fremont, California (letter report)
S-002339	Mara Melandry	1980 (Sep)	Archaeological Survey Report, Excess Parcels on Rescinded Route 238, Post Mile 5.8, in Union City, Alameda County, Excess Parcels 34410 and 39259
S-002607	David Chavez	1981 (May)	Alameda County Water District's Groundwater Recharge Facilities Plan (letter report)
S-012953		1980 (Oct)	Section 106 Historic Property Survey Report for the Decoto Road Widening Project, Cities of Fremont and Union City, Alameda County
	David Chavez	1980 (Sep)	Decoto Road Widening Project, Fremont and Union City, California (letter report)
S-014067	Suzanne Baker	1992 (Jun)	Archaeological Survey Report, Widening of Mission Boulevard in Hayward, Union City, and Fremont, Alameda County
S-015220	Donna M. Garaventa, Stuart A. Guedon, Sondra A. Jarvis, and Melody E. Tannam	1991 (Apr)	Preliminary Cultural Resources Evaluation for Route 84 Realignment Project Alternatives in Hayward, Union City and Fremont, Alameda County, California
	Donna M. Garaventa, Stuart A. Guedon, and Melody E. Tannam	1995 (Mar)	Historic Property Survey Report and Finding of No Effect, Route 84 Realignment Project, Hayward, Union City and Fremont, Alameda County, California, 04-ALA-84 P.M. 6.2-9.0 EA 233030
	Colin I. Busby	1995 (Jan)	Archaeological Survey Report Route 84 Realignment Project 04-ALA-SR84 6.2/9.0 233030
	Colin I. Busby	1995 (Aug)	Negative Archaeological Survey Report Supplement No. 1, Route 84 Realignment Project 04-ALA-SR84 6.2/9.0 233030
	Colin I. Busby, Donna M. Garaventa, Stuart A. Guedon, and Melody E. Tannam	1995 (May)	Historic Property Survey Project and Finding of Effect, Addendum No. 1, Route 84 Realignment Project, Hayward, Union City and Fremont, Alameda County, California, 04-ALA-84 P.M. 6.2/9.0 EA 233030

*Draft Environmental Impact Report for the Union City Station District Specific Plan
Section 3.4: Cultural and Tribal Cultural Resources*

<i>Study Number</i>	<i>Author</i>	<i>Date</i>	<i>Title</i>
	Colin I. Busby	1995 (Apr)	Negative Archaeological Survey Report Supplement No. 2, Route 84 Realignment Project, 04-ALA-SR84, 6.2/9.0 EA 233030
	Ward Hill	1994 (Mar)	Historic Architectural Survey Report, Route 84 Realignment Project Alternatives, Hayward, Union City and Fremont, Alameda County, California (04ALA-84.P.M. 6.2-9.0 EA 233030) (California Department of Transportation Contract 04D186-AL)
	Ward Hill	1995 (Apr)	Historic Architectural Survey Report Supplement No. 1, Route 84 Realignment Project Alternatives, Hayward, Union City and Fremont, Alameda County, California (04ALA-84.P.M. 6.2-9.0 EA 233030)
	Cherilyn Widell	1995 (Oct)	FHWA950601A; Route 84 Realignment Project, Alameda County
S-022820	Wendy J. Nelson, Tammara Norton, Larry Chiea, and Eugenia Mitsanis	2000 (Jun)	Cultural Resources Survey for the Level (3) Communications Long Haul Fiber Optics Project, Segment WS07: Oakland to San Jose
S-025018	Colin I. Busby	2001 (Apr)	Cultural Resources Assessment-McKesson Property, Seventh Street and Decoto Road, Union City, Alameda County (APN 87-21-6 and 87-21-15) (letter report)
S-026045	Richard Carrico, Theodore Cooley, and William Eckhardt	2000 (Mar)	Cultural Resources Reconnaissance Survey and Inventory Report for the Metromedia Fiberoptic Cable Project, San Francisco Bay Area and Los Angeles Basin Networks
S-028878	John Holson	2004 (Jul)	PSSC Archaeological Monitoring (letter report)
S-031161	John W. Dougherty	2006 (Jan)	Cultural Resources Inventory, Line-M Project, Union City, Alameda County, California.
S-033061	Nancy Sikes, Cindy Arrington, Bryon Bass, Chris Corey, Kevin Hunt, Steve O'Neil, Catherine Pruet, Tony Sawyer, Michael Tuma, Leslie Wagner, and Alex Wesson	2006 (Dec)	Cultural Resources Final Report of Monitoring and Findings for the Qwest Network Construction Project, State of California

*Draft Environmental Impact Report for the Union City Station District Specific Plan
Section 3.4: Cultural and Tribal Cultural Resources*

<i>Study Number</i>	<i>Author</i>	<i>Date</i>	<i>Title</i>
S-033504	Cameron Bauer and Heather Price	2007 (Mar)	Historic Property Survey Report, Seismic Retrofit of BART Aerial Structures and Stations Along Concord, Richmond, Daly City and Fremont Lines, Alameda, Contra Costa, and San Mateo Counties, STPLZ-6000 (25)
	Heather Price	2007 (Mar)	Historical Resources Evaluation Report, Exhibit I of HPSR, Seismic Retrofit of BART Aerial Structures and Stations Along Concord, Richmond, Daly City and Fremont Lines, District 4, Alameda, Contra Costa, San Francisco, and San Mateo Counties, STPLZ-6000
	Heather Price	2007 (Mar)	Archaeological Survey Report Exhibit II of HPSR, Seismic Retrofit of BART Aerial Structures and Stations along the Concord, Richmond, Daly City and Fremont Lines, District 4, Alameda, Contra Costa, San Francisco, and San Mateo Counties, STPLZ-6000 (25)
	Jennifer Darcangelo and Milford Wayne Donaldson	2007 (Mar)	FHWA 070321A Determinations of Eligibility for the Proposed Seismic Retrofit of BART Aerial Stations and Structures along the Concord, Richmond, Daly City, and Fremont Lines
S-036481	Adrian Whitaker, Phil Kaijankowski, Jack Meyer, and Brian Byrd	2009 (May)	Archaeological Survey Report for the Dumbarton Rail Corridor Project, San Mateo and Alameda Counties, California
S-038420	Lorna Billat	2011 (Sep)	New Tower Submission Packet, DSA Logan High School, Project Number SF-39040B
S-043590	Allen G. Pastron	2013 (Jul)	Extended Phase I Report for the Niles Boulevard Bridge Replacement Project, Fremont, Alameda County, California, 04-ALA-0-FMT, BRLZ-5322 (019)
	Allen G. Pastron	2013 (Jul)	Extended Phase I Proposal for the Niles Blvd Bridge Replacement Project, Fremont, Alameda County, California 04-ALA-0-FMT, BRLZ-5322(019)
	Allen G. Pastron	2013 (Jul)	Archaeological Survey Report for the Niles Boulevard Bridge Replacement Project Fremont, Alameda County, CA; 04-ALA-0-FMT, BRLZ-5322 (019)
	Allen G. Pastron	2014	Historic Property Survey Report, Niles Boulevard Bridge Replacement Project, City of Fremont, BRZZ-5322(019)
S-047109	Carolyn Losee and Holly D. Moore	2015 (Jun)	FCC Form 621 Collocation Submission Packet: AT&T Site No. CCL00891/CNU0891, 34300 Zwissig Way, Union City, California 94587

<i>Study Number</i>	<i>Author</i>	<i>Date</i>	<i>Title</i>
	Carolyn Losee	2015 (Jun)	Cultural Resources Investigation for AT&T Mobility CNU089I Quarry Lakes, 34300 Zwissig Way, Union City, Alameda County, California 94587 (letter report)
	Julianne Polanco	2015 (Aug)	FCC_2015_0703_003; CNU089I Quarry Lakes, 34300 Zwissig Way, Union City, Collocation
S-047535	Daniel Shoup	2015	Historic Property Survey Report, Union City Traffic Signal Improvements Project, Union City, Alameda County, California, Federal Project No. HSIPL 5354(038)
	Daniel Shoup	2015 (Aug)	Archaeological Survey Report Union City Traffic Signal Improvements Project, Union City, Alameda County, California, Federal Project No. HSIPL 5354(038)
	Daniel Shoup	2016 (Mar)	Extended Phase I Archaeological Survey Report Union City Traffic Signal Improvements Project, Central Avenue and Alvarado-Niles Road, Union City, Alameda County, HSIPL 5354(038)

Tribal Cultural Resources

A tribal cultural resource is a site, feature, place, cultural landscape, sacred place, or object with cultural value to a tribe that is included or determined to be eligible for inclusion in the CRHR, included in a local register of historical resources, or otherwise determined to be significant by the lead agency of an environmental review process.

Potential Resources

The 2021 NWIC records search revealed two Native American tribal cultural resources within 0.25 mile of the Planning Area and there may be additional undiscovered tribal cultural resources within the Planning Area. Native American resources in this part of Alameda County have been found primarily along the banks of waterways, within the interface between the foothills and the valley floor, and other productive ecotones. There is a moderate potential of identifying unrecorded Native American resources in the Planning Area (Northwest Information Center 2021).

Native American Consultation

To determine sensitivity for Native American resources within the Planning Area, consultation with NAHC and local Native American groups was conducted. NAHC was contacted on February 23, 2021, with a request for the following information:

- CEQA Tribal Consultation List (AB 52)
- General Plan (SB 18) – per Government Code Section 65352.3
- Identification by NAHC of any Native American resources within the subject lands that are listed in the Sacred Lands File

A response from NAHC was received on March 8, 2021, and stated that a search of the Sacred Lands File identified sacred lands in the vicinity of the Planning Area and two previously recorded prehistoric archaeological sites within 0.25 mile of the Planning Area.

The response from NAHC also included the following list of individuals and tribal representatives who might have an interest in the Proposed Plan:

- Irenne Zwierlein, Amah Mutsun Tribal Band of Mission San Juan Bautista
- Tony Cerda, Costanoan Rumsen Carmel Tribe
- Kanyon Sayers-Roods, Indian Canyon Mutsun Band of Costanoan
- Ann Marie Sayers, Indian Canyon Mutsun Band of Costanoan
- Charlene Nijmeh, Muwekma Ohlone Indian Tribe of the SF Bay Area
- Monica Arellano, Muwekma Ohlone Indian Tribe of the SF Bay Area
- Timothy Perez, North Valley Yokuts Tribe
- Katherine Perez, North Valley Yokuts Tribe
- Andrew Galvan, The Ohlone Indian Tribe
- Corrina Gould, The Confederated Villages of Lisjan
- Dee Dee Ybarra, Rumsen Am:a Tur:ataj Ohlone

These individuals and tribal representatives were sent formal notification under SB 18 and AB 52 on June 23, 2021. No responses were received from any of the individuals and tribal representatives and no Native American tribes shared knowledge of tribal cultural resources.

The environmental setting in the Planning Area and the sites of known Native American archaeological resources in the Planning Area indicate that there is potential for the Planning Area to contain tribal cultural resources from past Native American activities.

REGULATORY SETTING

Federal Regulations

Although the Proposed Plan is not anticipated to require compliance with Section 106 of the National Historic Preservation Act, the NRHP and federal guidelines related to the treatment of cultural resources are relevant for the purposes of determining whether cultural resources, as defined under CEQA, are present and guiding the treatment of such resources. The sections below summarize the relevant federal regulations and guidelines.

National Historic Preservation Act and National Register of Historic Places

The National Historic Preservation Act (16 United States Code [U.S.C.] 470f) requires federal agencies to consider effects on historic properties when projects involve federal funding or permitting or occur on federal land. The National Historic Preservation Act establishes the NRHP, which provides a framework for resource evaluation and informs the process of determining impacts on historic properties, which can also be considered historical resources under CEQA.

The NRHP is the nation's official comprehensive inventory of historic properties. Administered by the National Park Service, the NRHP includes buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, or cultural significance at the national, state, or local level. Typically, a historic property that is more than 50 years of age is eligible for listing in the NRHP if it meets any one of the four eligibility criteria and retains sufficient historical integrity. A resource less than 50 years old may be eligible if it can be demonstrated that it is of "exceptional importance" or a contributor to a historic district. NRHP criteria are defined in *National Register Bulletin Number 15: How to Apply the National Register Criteria for Evaluation*.

National Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act (NAGPRA) was passed in 1990 to provide for the protection of Native American graves. The act conveys to Native American's of demonstrated lineal descent, the human remains, including the funerary or religious items, that are held by federal agencies and federally supported museums, or that have been recovered from federal lands. NAGPRA makes the sale or purchase of Native American remains illegal, whether or not they were derived from federal or Native American lands.

State Regulations

California Environmental Quality Act

CEQA, as codified in PRC Section 21000 et seq. and implemented through the CEQA Guidelines (14 California Code of Regulations [CCR] Section 15000 et seq.), is the principal statute governing the environmental review of projects in the state. In order to be considered a historical resource, it generally must be at least 50 years old. Section 21084.1 of CEQA and Section 15064.5 of the CEQA Guidelines define a historical resource for purposes of CEQA. A historical resource includes:

- A resource listed in, or determined to be eligible by the State Historical Resources Commission for listing in, the CRHR (PRC Section 5024.1, Title 14 CCR, Section 4850 et seq.);
- A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the PRC or identified as significant in a historical resource survey meeting the requirements of Section 5024.1(g) of the PRC, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant;
- Any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing in the CRHR (PRC Section 5024.1, Title 14 CCR, Section 4852).

The fact that a resource is not listed in, or determined to be eligible for listing in, the CRHR; not included in a local register of historical resources, pursuant to PRC Section 5020.1(k); or identified in a historical resources survey meeting the criteria of PRC Section 5024.1(g) does not preclude a lead agency from determining that the resource may be a historical resource, as defined in PRC Sections 5020.1(j) or 5024.1.

California Register of Historical Resources

The CRHR is “an authoritative listing and guide to be used by state and local agencies, private groups, and citizens in identifying the existing historical resources of the state and indicating which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change” (PRC Section 5024.1(a)). Certain resources are determined by CEQA to be automatically included in the CRHR, including California properties formally eligible for or listed in the NRHP. To be eligible for the CRHR as a historical resource, a resource must be significant at the local, state, and/or federal level under one or more of the following evaluative criteria, as defined in PRC Section 5024.1(c):

1. The resource is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage.
2. The resource is associated with the lives of persons important in our past.
3. The resource embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of an important creative individual; or possesses high artistic values.
4. The resource has yielded, or may be likely to yield, information important in prehistory or history.

As with the NRHP, a significant historical resource must possess integrity in addition to meeting the significance criteria to be considered eligible for listing in the CRHR. Consideration of integrity for evaluation of CRHR eligibility follows the definitions and criteria from the National Park Service’s *National Register Bulletin 15*.

California Historic Resources

OHP offers four different registration programs, including the California Historical Landmarks, California Points of Historical Interest, CRHR, and the NRHP. Each registration program is unique in the benefits offered and procedures required. If a resource meets the criteria for registration, it may be nominated by any individual, group, or local government to any program at any time. Resources do not need to be locally designated before being nominated to a state program nor do they need to be registered at the state level before being nominated to the National Register. The California Register includes buildings, the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California. Resources on the California Register have met criteria for designation or have been included due to their presence on the NRHP, the State Historical Landmark program, or the California Points of Historical Interest program.

State Historical Landmark Program

California Historical Landmarks are buildings, structures, sites, or places that have been determined to have statewide historical significance by meeting at least one of several criteria. The resource must be the first, last, only, or most significant of its type in the state or within a large geographic region; associated with an individual or group having a profound influence on California history; or be a prototype of, or outstanding example of, a period, style, architectural movement, or construction, or be one of the more notable works or best surviving work in a region of a pioneer, designer, or master builder.

California Points of Historical Interest

California Points of Historical Interest are sites, buildings, features, or events of local (city or county) significance, having anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value. Criteria are the same as those for Historical Landmarks but directed to local areas. Points of Historical Interest designated after December 1997 and recommended by the State Historical Resources Commission are also listed in the California Register. No historical resource may be designated as both a Landmark and a Point; if a Point is subsequently granted status as a Landmark, the Point designation will be retired.

California Government Code Section 65040.2(g)

California Government Code Section 65040.2(g) provides guidelines for consulting with Native American tribes for the following: (1) the preservation of, or the mitigation of impacts on places, features, and objects described in Sections 5097.9 and 5097.993 of the PRC; (2) procedures for identifying through NAHC the appropriate California Native American tribes; (3) procedures for continuing to protect the confidentiality of information concerning the specific identity, location, character, and use of those places, features, and objects; and (4) procedures to facilitate voluntary landowner participation to preserve and protect the specific identity, location, character, and use of those places, features, and objects.

Senate Bill 18

Signed into law in September 2004, and effective March 1, 2005, SB 18 permits California Native American tribes recognized by the NAHC to hold conservation easements on terms mutually satisfactory to the tribe and the landowner. The term “California Native American tribe” is defined as “a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC.” The bill also requires that, prior to the adoption or amendment of a city or county’s general plan, the city or county consult with California Native American tribes for the purpose of preserving specified places, features, and objects located within the city or county’s jurisdiction. SB 18 also applies to the adoption or amendment of specific plans. This bill requires the planning agency to refer to the California Native American tribes specified by the NAHC and to provide them with opportunities for involvement.

Assembly Bill 52

Tribal cultural resources were originally identified as a distinct CEQA environmental category with the adoption of AB 52 in September 2014. For all projects subject to CEQA that received a notice of preparation, notice of negative declaration, or mitigated negative declaration on or after July 1, 2015, AB 52 requires the lead agency on a proposed project to consult with the geographically

affiliated California Native American tribes. The legislation creates a broad new category of environmental resources, “tribal cultural resources,” which must be considered under CEQA. AB 52 requires a lead agency to not only consider the resource’s scientific and historical value but also whether it is culturally important to a California Native American tribe.

AB 52 defines tribal cultural resources as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are included or determined to be eligible for inclusion in the CRHR; included in a local register of historical resources, as defined in PRC Section 5020.1(k); or determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to the criteria of PRC Section 5024.1(c) (CEQA Section 21074).

AB 52 also sets up an expanded consultation process. For projects initiated after July 1, 2015, lead agencies are required to provide notice of the proposed projects to any tribe that is traditionally and culturally affiliated with the geographic area that requested to be informed by the lead agency, following PRC Section 21018.3.1(b). If, within 30 days, a tribe requests consultation, the consultation process must begin before the lead agency can release a draft environmental document. Consultation with the tribe may include discussion of the type of review necessary, the significance of tribal cultural resources, the significance of the project’s impacts on the tribal cultural resources, and alternatives and mitigation measures recommended by the tribe. The consultation process will be deemed concluded when either (1) the parties agree to mitigation measures or (2) any party concludes, after a good-faith effort, that an agreement cannot be reached. Any mitigation measures agreed to by the tribe and lead agency must be recommended for inclusion in the environmental document. If a tribe does not request consultation, or to otherwise assist in identifying mitigation measures during the consultation process, a lead agency may still consider mitigation measures if the agency determines that a project will cause a substantial adverse change to a tribal cultural resource.

Assembly Bill 168

AB 168, adopted in September 2020, provides additional protection for tribal cultural resources as defined in AB 52. This bill applies in situations where a developer seeks to streamline approval under SB 35 and, in doing so, bypass CEQA requirements. AB 168 rectifies a loophole in SB 35 that allowed developers to apply for fast-tracked approval without notifying Native American tribes affiliated with the project area. Instead, under AB 168 projects would be ineligible for SB 35 and subject to CEQA if (1) the site of the proposed development is a tribal cultural resource that is on a national, state, tribal, or local historic register list, (2) the local government and the California Native American tribe do not agree that no potential tribal cultural resource would be affected by the proposed development, or (3) the local government and California Native American tribe find that a potential tribal cultural resource could be affected by the proposed development and the parties do not document an enforceable agreement regarding the methods, measures, and conditions for treatment of those tribal cultural resources, as provided.

California Public Resources Code

Section 5097.98

The treatment of Native American human remains is regulated by PRC Section 5097.98, as amended by Assembly Bill 2641, which addresses the disposition of Native American burials, protects remains, and appoints the NAHC to resolve disputes. In addition, California Health and Safety Code Section 7050.5 includes specific provisions for the protection of human remains in the

event of discovery, and Section 7052 makes the willful mutilation, disinterment, or removal of human remains a felony. The Health and Safety Code is applicable to any project where ground disturbance would occur.

Sections 5097–5097.6

Sections 5097–5097.6 of the California PRC outline the requirements for cultural resource analysis prior to the commencement of any construction project on state lands. The state agency proposing the project may conduct the cultural resource analysis or they may contract with the State Department of Parks and Recreation. In addition, this section stipulates that the unauthorized disturbance or removal of archaeological, historical, or paleontological resources located on public lands is a misdemeanor. It prohibits the knowing destruction of objects of antiquity without a permit (expressed permission) on public lands and provides for criminal sanctions. This section was amended in 1987 to require consultation with the California NAHC whenever Native American graves are found. Violations for the taking or possessing remains or artifacts are felonies.

Sections 5097.9-991

The PRC Section 5097.9-991, regarding Native American heritage, outlines protections for Native American religion from public agencies and private parties using or occupying public property. Also protected by this code are Native American sanctified cemeteries, places of worship, religious or ceremonial sites, or sacred shrines located on public property.

Local Regulations

Union City General Plan (UC 2040)

The Union City General Plan (UC 2040) includes the following goals and policies associated with cultural and 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.

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.⁴⁶ 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 consist 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

⁴⁶ City of Union City. 2020. Union City Municipal Code. Available: <https://qcode.us/codes/unioncity/>. Accessed: March 24, 2020

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
 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 overlay 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.

Impact Analysis

SIGNIFICANCE CRITERIA

For the purposes of this EIR, a significant impact would occur if the Proposed Plan would:

- Criterion 1:** Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5;
- Criterion 2:** Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5, or
- Criterion 3:** Disturb any human remains, including those interred outside of formal cemeteries.
- Criterion 4:** Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape, sacred place, or object with cultural value to a California Native Tribe and that is:

Listed or eligible for listing in the California Register of Historical Resources 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.

IMPACTS

- Impact 3.4-1A** Implementation of the Proposed Plan at the program level could cause a substantial adverse change in the significance of a historical resource, as defined as physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historic resource would be materially impaired, but is reduced through the implementation of Mitigation Measure CUL-1 (Guidelines Section 15064.5). (*Less than Significant with Mitigation Incorporated*)

This impact discussion provides program-level analysis for the plan area as a whole. Please see Impact 3.4-1B, below, for project-level analysis related to the Peterson Farmhouse, an identified historical resource under CEQA.

Implementation of the Proposed Plan could result in the substantial adverse change to historical resources through demolition, alterations, changed in ownership, and accidents caused by construction activities. The goals and policies of the Proposed Plan encourage new residential and

mixed-use development and redesigning the roadways and other transit or greenway connectors to provide a cohesive “sense of place” in Union City through connectivity and community gathering. These goals and policies do not explicitly prohibit projects that could affect cultural resources through the physical demolition, destruction, relocation, or alteration of a resource or its immediate surroundings.

At the program level, when development or redevelopment projects are proposed under the Proposed Plan, the project-level CEQA document would need to identify whether age-eligible resources qualify for listing in the CRHR and, for those that qualify, whether a proposed project would cause a substantial adverse change to those resources. Therefore, the impact of implementation of the Proposed Plan on historical resources at the programmatic level (excepting the Peterson Farmhouse) would be less than significant with implementation of the following mitigation measure.

Mitigation Measures

MM-CUL-1: Historical Resource Evaluation Process. The City shall require that all proposed development within the Planning Area undergo additional investigation to determine the project-level impact to built-environment historical resources. Project sponsors shall consult with the City regarding the historical resource status of any historic-aged built-environment resources that may exist within or in immediate proximity to the proposed development site. Depending upon the specific site, the City may require the project sponsor to engage a historic preservation professional to complete a California register evaluation of any unevaluated historic-aged built-environment resources where projects would occur.

For future projects on parcels found to contain qualifying historical resources, project-level impacts will be analyzed and appropriate mitigation measures will be included in the CEQA document.

Significance After Mitigation: Less than significant

Impact 3.4-1B Implementation of the Proposed Plan at the project level would cause a substantial adverse change in the significance of a historical resource (the Peterson Farmhouse), as defined as physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historic resource would be materially impaired (Guidelines Section 15064.5). (Significant and Unavoidable with Mitigation)

Development under the Proposed Plan would potentially entail the demolition of the Peterson Farmhouse. The Peterson Farmhouse is located within the Gateway subarea and has been determined eligible for listing in the CRHR and qualifies as a historical resource under CEQA. An assessment of the Peterson Farmhouse completed by California Department of Transportation (Caltrans) in May 2021 (see Appendix H) determined that the property is in a state that it cannot be sold and moved to another location. Demolition of the property would result in a substantial adverse change to historical resources as defined by CEQA Guidelines Section 15064.5.

Implementation of **Mitigation Measures CUL-2 through CUL-4** would partially compensate for the impact associated with demolition of the resource through documentation and interpretation; however, because these measures would not be enough to avoid or reduce the impact, the demolition of the Peterson Farmhouse would remain significant and unavoidable with mitigation incorporated.

Mitigation Measures

MM-CUL-2: Conduct Level II Historic American Buildings Survey/Historic American Landscapes Survey Documentation.⁴⁷ (If applicable - see Mitigation Measure CUL-1) Where the setting or portions of the Peterson Farmhouse require substantial alteration that results in adverse change due to a project that is approved under the Proposed Plan, and where relocation is infeasible (see Mitigation Measure CUL-1), the City or applicant shall oversee Level II Historic American Buildings Survey/Historic American Landscapes Survey (HABS/HALS) documentation of the property, including a written narrative, measured drawings, and digital or film photographs.

The documentation will be completed by experienced professionals who meet the Secretary of the Interior Standards. The documentation package must include representation and characterization of the agricultural setting in which the historic property is situated; the survey boundary may be determined in consultation with the property owners, the City, the applicant, and the qualified documentation team. The City shall maintain a copy of the final documentation on file and make a good faith effort to identify two or more additional repositories that will accept printed and digital copies of the final documentation package, including but not limited to the Union City Historical Museum, the Union City Public Library, the Mission Peak Heritage Foundation, and the California State Archives. Field survey and data collection must be completed, and draft documentation reviewed and approved by the City prior to issuance of any demolition permits for the project.

MM-CUL-3: Preserve Contributing Features in the Event of Demolition. In the event that demolition of the Peterson Farmhouse cannot feasibly be avoided as part of a subsequent project pursuant to the Proposed Plan, the City shall require land within the historic resource boundary shown on Figure 3.4-1 below to be used as the park space for the development and as many of the contributing features as feasible shall be preserved.

⁴⁷ HABS Level II Documentation was completed by CALTRANS for conveyance of the property to the City in 2021. In the event that a decision is made to demolish or substantially alter the Peterson Farmhouse, the City will either use or adapt that HABS as may be warranted by conditions at the time.

Figure 3.4-I Historic Resource Boundary



MM-CUL-4: Complete On-site, Permanent Signage or Other Appropriate Media. Where demolition, substantial alteration, or a change in setting at the Peterson Farmhouse is required due to a project that is approved under the Proposed Plan, the City, in consultation with Caltrans, Office of Cultural Resource Studies, shall oversee the completion of on-site, permanent signage or other appropriate media that interprets the significant history of the property; shall; name a road within the development after the Peterson Ranch; and shall name the park within the historic preservation boundary after the Peterson Ranch. An interpretive plan that details the interpretive materials, including format, location, and draft text and images to be used, must be completed prior to issuance of any demolition permits for the project. The on-site interpretive material must be publicly assessable and installed prior to completion of the project.

Significance After Mitigation: Significant and unavoidable

Impact 3.4-2 Implementation of the Proposed Plan would not cause an adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5. (*Less than Significant*)

There are known prehistoric and historic archaeological resources in and around the Planning Area. An unnamed tributary of Alameda Creek runs through the area, which tends to be associated with precontact archaeological resources. Based on these factors, the Planning Area has the potential for encountering deposits associated with known resources or as-yet undocumented resources.

Future development projects or public works activities allowed under the Proposed Plan may involve grading, excavation, overland vehicle travel, or other ground-disturbing activities, or could facilitate public access to archaeological sites, which could disturb or damage unknown archaeological resources. The impact of such activities would be considered significant if they were to cause a substantial adverse change to the archaeological resources as defined by CEQA Guidelines Section 15064.5.

Although implementation of the Proposed Plan may result in actions that could adversely affect archaeological resources, Proposed Plan policies and actions would minimize or avoid impacts by requiring the protection and preservation of such resources. In accordance with PRC Section 21083.2 and CEQA Guidelines Section 15064.5(f), which recognize that historical or unique archaeological resources may be accidentally discovered during project construction, MM-CUL-5 requires developers to halt all work if cultural resources are encountered during excavation or construction of a project, and to retain a qualified archaeologist to evaluate and make recommendations for conservation and mitigation, Policy MM-CUL-6 requires developers to create an inadvertent discovery plan to be implemented if cultural resources are encountered during excavation or construction of a project, and Policy MM-CUL-7 requires developers to conduct cultural resource awareness training prior to project-related ground disturbance. At the program level, the impact of implementation of the Proposed Plan on archaeological resources would be less than significant, with implementation of existing State regulations, the proposed policies referenced above, and the following mitigation measures.

Mitigation Measures

- MM-CUL-5: Halt Work if Cultural Resources are Encountered and Evaluate Resource.** Developers of projects in the Planning Area shall halt all work if cultural resources are encountered during excavation or construction of a project and retain a qualified archaeologist to evaluate and make recommendations for conservation and mitigation. All such recommendations shall be 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.
- MM-CUL-6: Inadvertent Discovery Protocol.** In the event an archaeological resource is encountered during excavation or construction activities for projects within the

Planning Area, the construction contractor shall halt construction within 50 feet of the find and immediately notify the City. Construction activities shall be redirected and the project proponent shall, in consultation with the City, retain a qualified professional archaeologist to 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 (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).

- MM-CUL-7: Conduct Cultural Resources Awareness Training.** Prior to the start of any ground disturbance or construction activities, developers of projects in the Planning Area shall retain a qualified professional archaeologist to conduct cultural resource awareness training for construction personnel. 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.

Significance After Mitigation: Less than significant

Impact 3.4-3 Implementation of the Proposed Plan would not have the potential to disturb human remains, including those interred outside of formal cemeteries. (Less than Significant with Mitigation Incorporated)

Human remains, particularly those interred outside of formal cemeteries, could be disturbed during grading, excavation, or other ground-disturbing activities associated with future development or redevelopment projects allowed under the Proposed Plan. As previously discussed, the response from the NAHC stated that a search of the Sacred Lands File identified sacred lands in the vicinity of the Planning Area and two previously recorded prehistoric archaeological sites within 0.25 mile of the Planning Area. While the exact location of these resources is not public information, consultation with the tribes per SB 18 and AB 52 provides the opportunity for Native American tribes to identify if known resources could be compromised by implementation of the Proposed Plan, including those containing human remains. Consultation with tribes also provides the opportunity to identify approaches to avoiding or developing mitigation measures for significant effects on tribal cultural resources. No responses were received from any of the individuals and tribal representatives during formal notification under SB 18 and AB 52 and no Native American

tribes shared knowledge of tribal cultural resources. Implementation of **Mitigation Measures CUL-5 through CUL-7** would reduce any potential impact on archaeological and tribal cultural resources, including human remains. Compliance with State laws relating to human remains will be required. At the program level, the impact of implementation of the Proposed Plan on human remains would therefore be less than significant with implementation of existing State regulations as well as policies and actions within the Proposed Plan.

Mitigation Measures

MM-CUL-5: Halt Work if Cultural Resources are Encountered and Evaluate Resource.

MM-CUL-6: Inadvertent Discovery Protocol.

MM-CUL-7: Conduct Cultural Resources Awareness Training.

Significance After Mitigation: Less than significant

Impact 3.4-4 Implementation of the Proposed Plan would not cause an adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either 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:

- (a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC Section 5020.1(k), or**
- (b) 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. (*Less than Significant with Mitigation Incorporated*)**

Implementation of the Proposed Plan would not directly result in physical construction that could impact tribal cultural resources. Future development or redevelopment projects allowed under the Proposed Plan could result in indirect impacts through grading, overland construction vehicle travel, or other ground-disturbing activities, or through facilitation of public access to culturally significant sites. The impact of such activities would be considered significant if they were to cause a substantial adverse change to the resources as defined by PRC Section 21074. As previously discussed, the response from the NAHC stated that a search of the Sacred Lands File identified sacred lands in the vicinity of the Planning Area and two previously recorded prehistoric archaeological sites within 0.25 mile of the Planning Area. While the exact location of these resources is not public information, consultation with the tribes per SB 18 and AB 52 provides the opportunity for Native American tribes to identify if known resources could be compromised by implementation of the Proposed Plan. Such consultation is also intended to arrive at consensus regarding mitigation measures or ways to avoid a significant effect on tribal cultural resources. No

responses were received from any of the individuals and tribal representatives during formal notification under SB 18 and AB 52 and no Native American tribes shared knowledge of tribal cultural resources.

In addition to consultation with tribes required by State law, and in accordance with PRC Section 21083.2 and CEQA Guidelines Section 15064.5(f), which recognize that historical or unique archaeological resources may be accidentally discovered during project construction, **Mitigation Measure CUL-5** requires developers to halt all work if cultural resources are encountered during excavation or construction of a project, and to retain a qualified archaeologist to evaluate and make recommendations for conservation and mitigation, **Mitigation Measure CUL-6** requires developers to create an inadvertent discovery plan to be implemented if cultural resources are encountered during excavation or construction of a project, and **Mitigation Measure CUL-7** requires developers to conduct cultural resource awareness training prior to project-related ground disturbance.

At the program level, the impact of implementation of the Proposed Plan on tribal cultural resources would therefore be less than significant with implementation of existing State regulations as well as policies and actions within the Proposed Plan.

Mitigation Measures

MM-CUL-5: Halt Work if Cultural Resources are Encountered and Evaluate Resource.

MM-CUL-6: Inadvertent Discovery Protocol.

MM-CUL-7: Conduct Cultural Resources Awareness Training.

Significance After Mitigation: Less than significant

3.5 Energy, Climate Change, and Greenhouse Gas Emissions

This section describes the environmental and regulatory setting for greenhouse gas (GHG) emissions. It also describes impacts related to GHG emissions that would result from implementation of the Union City Station District Specific Plan (Proposed Plan) and mitigation for significant impacts where feasible and appropriate.

There were seven public comments in response to the Notice of Preparation (NOP) (Appendix C) regarding issues related to energy, climate change, and GHG emissions. Caltrans requested that the EIR include a robust transportation demand management program to reduce GHG emissions from future development in this area. Two members of the public stated that the EIR should include an assessment of changing climate conditions. Three members of the public requested that the EIR look at conservation strategies to address climate change. Other comments focused on active transportation, energy efficient construction, and new carbon emission standards. These comments are addressed in the Impacts section and incorporated into the following analysis.

Environmental Setting

THE GREENHOUSE EFFECT AND GREENHOUSE GASES

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.¹ 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

¹ Intergovernmental Panel on Climate Change. 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. Accessed: August 16, 2021.

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.² 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.³ Large increases in global temperatures could have substantial adverse effects on the natural and human environments worldwide and in California.

Greenhouse Gases

The principle anthropogenic (human-made) GHGs contributing to global warming are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and fluorinated compounds, including sulfur hexafluoride (SF₆), 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 CO₂, CH₄, and N₂O. 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). CO₂ 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 (CO₂e), which compares the gas in question to that of the same mass of CO₂ (CO₂ has a global warming potential of 1 by definition).

² Intergovernmental Panel on Climate Change. 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. Accessed: August 16, 2021.

³ Ibid.

Table 3.5-1 lists the global warming potential of CO₂, CH₄, and N₂O and their lifetimes in the atmosphere.

Table 3.5-1: Lifetimes and Global Warming Potentials of Key Greenhouse Gases

<i>Greenhouse Gas</i>	<i>Global Warming Potential (100 years)</i>	<i>Lifetime (years)</i>
Carbon Dioxide (CO ₂)	1	— ^a
Methane (CH ₄)	25	12
Nitrous Oxide (N ₂ O)	298	114

^a No lifetime (years) for carbon dioxide was presented by CARB.

Source: California Air Resources Board. 2021. GHG Global Warming Potentials. Available: <https://ww2.arb.ca.gov/ghg-gwps>. Accessed: July 1, 2021.

The California Air Resources Board (CARB) recognizes the importance of short-lived climate pollutants (SLCP) (described in *Regulatory Setting*) and reducing these emissions to achieve the State’s overall climate change goals. SLCP’s 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 CO₂.⁴ Given their short-term lifespan and warming impact, short-lived climate pollutants are measured in terms of CO₂e using a 20-year time period. The use of GWPs with a time horizon of 20 years captures the importance of the short-lived climate pollutants and gives a better perspective as to the speed at which emission controls will affect the atmosphere relative to CO₂ emission controls. The Short-Lived Climate Pollutant Reduction Strategy (SLCP Reduction Strategy), as discussed in the *Regulatory Setting*, addresses CH₄, HFC gases, and anthropogenic black carbon. CH₄ 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. The Proposed Plan’s emission sources are not major contributors of HFC and black carbon; thus, they are not discussed herein.

Greenhouse Gas Reporting

A GHG inventory is a quantification of all GHG emissions and sinks⁵ 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 3.5-2 outlines the most recent global, national, statewide, and local GHG inventories to help contextualize the magnitude of potential project-related emissions.

⁴ California Air Resources Board. 2017. *Short-Lived Climate Pollutant Reduction Strategy*. March. Available: https://ww2.arb.ca.gov/sites/default/files/2018-12/final_slcp_report%20Final%202017.pdf. Accessed: August 16, 2021.

⁵ A GHG sink is a process, activity, or mechanism that removes a GHG from the atmosphere.

Table 3.5-2: Global, National, State, and Regional Greenhouse Gas Emission Inventories

<i>Emissions Inventory</i>	<i>Carbon Dioxide Equivalent (MTCO_{2e})</i>
2017 United Nations Global Inventory ^a	53,500,000,000
2019 USEPA National Inventory ^b	6,558,300,000
2018 CARB State Inventory ^c	418,200,000
2015 BAAQMD GHG Emissions Inventory ^d	85,000,000
2005 Union City Inventory ^e	342,297

MTCO_{2e} = metric tons of carbon dioxide equivalents

Sources:

- a. United Nations. 2018. *Emissions Gap Report 2018*. December 5. Available: <https://www.ipcc.ch/site/assets/uploads/2018/12/UNEP-1.pdf>. Accessed: August 16, 2021.
- b. U.S. Environmental Protection Agency. 2021. *Inventory of U.S. Greenhouse Gas Emissions and Sinks, 1990-2019*. April. Available: <https://www.epa.gov/sites/production/files/2021-04/documents/us-ghg-inventory-2021-main-text.pdf>. Accessed: August 16, 2021.
- c. California Air Resources Board. 2021. *California Greenhouse Gas Emissions for 2000 to 2019, Trends of Emissions and Other Indicators*. July 28. Available: https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2019/ghg_inventory_trends_00-19.pdf. Accessed: August 16, 2021.
- d. Bay Area Air Quality Management District. 2017. *Final 2017 Clean Air Plan, Spare the Air, Cool the Climate*. 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: August 16, 2021.
- e. 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: August 16, 2021.

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.⁶

⁶ California Natural Resources Agency. 2018. *California’s Fourth Climate Change Assessment Statewide Summary Report*. Available: https://www.energy.ca.gov/sites/default/files/2019-11/Statewide_Reports-SUM-CCCA4-2018-013_Statewide_Summary_Report_ADA.pdf. Accessed: August 16, 2021.

- Rising average global sea levels primarily due to thermal expansion and the melting of glaciers, ice caps, and the Greenland and Antarctic ice sheets.⁷
- 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.⁸
- Declining Sierra Nevada 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.⁹
- 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.¹⁰
- 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.¹¹
- 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.¹²
- 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.¹³
- 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.¹⁴

ENERGY

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.

⁷ Intergovernmental Panel on Climate Change. 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. Accessed: August 16, 2021.

⁸ Ibid.

⁹ California Natural Resources Agency. 2018. *California’s Fourth Climate Change Assessment Statewide Summary Report*. Available: https://www.energy.ca.gov/sites/default/files/2019-11/Statewide_Reports-SUM-CCCA4-2018-013_Statewide_Summary_Report_ADA.pdf. Accessed: August 16, 2021.

¹⁰ Ibid.

¹¹ Ibid.

¹² Ibid.

¹³ Ibid.

¹⁴ Ibid.

This section discusses the existing conditions related to energy statewide, regionally, and in the Planning Area.

State Energy Resources and Use

California has a diverse portfolio of energy resources that produced 2,449 trillion British thermal units (BTUs) in 2019.¹⁵ Excluding offshore areas, the State ranked seventh in the nation in crude oil production in 2019, producing the equivalent of 920.1 trillion BTUs. The State ranked first in total renewable energy generation, with 1,139.6 trillion BTUs. Other energy sources in the State include natural gas (220.8 trillion BTUs) and nuclear (168.8 trillion BTUs). 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 approximately 7,802 trillion BTUs of energy in 2019. California's per capita energy consumption of 198 million BTUs is one of the lowest in the country and is ranked 50th in the nation as of 2019.

In 2019, natural gas accounted for the majority of energy consumption (2,217.2 trillion BTUs or 28 percent); followed by motor gasoline (1,688.1 trillion BTUs or 22 percent); renewable energy, including nuclear electric power, hydroelectric power, biomass, and other renewables (1,445.6 trillion BTUs or 19 percent); distillate and jet fuel (1,168.9 trillion BTUs or 15 percent); and interstate electricity (692.7 trillion BTUs or 9 percent); with the remaining 7 percent coming from a variety of other sources. Of the natural gas consumed, commercial uses consumed approximately 12 percent, followed by residential uses (23 percent), and industrial uses (38 percent), among many other uses.

In 2019, the transportation sector consumed the highest quantity of energy (3,073 trillion BTUs or 39.4 percent), followed by the industrial (1,805 trillion BTUs or 23.1 percent), commercial (1,468 trillion BTUs or 18.8 percent), and residential (1,456 trillion BTUs or 18.7 percent) sectors.

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

¹⁵ U.S. Energy Information Administration. February 2021. California State Energy Profile. Available: <https://www.eia.gov/state/print.php?sid=CA>. Accessed: July 30, 2021.

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.

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.¹⁶ EBCE allows customers to choose between three different electricity product operations: Bright Choice, which contains at least 60 percent renewable resources and 86 percent carbon-free resources as electricity sources, Brilliant 100, which is at least 75 percent renewable resources and 100 percent carbon-free resources as electricity sources, and Renewable 100, which contains 100 percent renewable resources as electricity sources.¹⁷

In Alameda County, a total of 384.2 million therms of natural gas were consumed in 2019, which is about 3 percent of the State's total consumption in 2019.¹⁸ In 2019, natural gas in Alameda County was primarily consumed by the residential sector (57 percent), followed by the non-residential sector (43 percent). In 2019, Alameda County consumed a total of 10,684.1 million kilowatts of electricity, which is about 4 percent of the State's total consumption.¹⁹ In the county, electricity was primarily consumed by the non-residential sector (71 percent), followed by the residential sector (29 percent) in 2019.

Planning Area Energy Resources and Use

The 471-acre Planning Area is comprised of public, institutional and civic uses (30.8 percent); followed by industrial uses (12 percent) and vacant land (9.6 percent). Residential land uses comprise 8.6 percent of the Planning Area, while commercial uses, including retail and office uses, account for 8.2 percent of the land in the Planning Area.

The energy consumption analysis in this EIR is based on energy consumption from future development under the Proposed Plan (pipeline projects and new development) minus energy consumption related to the existing land uses to be removed as part of the Proposed Plan's implementation. Energy consumption associated with existing land uses within the Planning Area that are to remain were not evaluated; this assumption is consistent with the air quality, GHG emissions, and transportation analyses.

PG&E provides natural gas to the Planning Area, and EBCE provides electricity using PG&E infrastructure, unless individuals choose to opt out of the EBCE, in which case PG&E provides

¹⁶ EBCE charges each of its customers an electric delivery charge for maintenance of PG&E's wires, infrastructure, and delivery of electricity to customers.

¹⁷ East Bay Community Energy (EBCE). 2020. Power Mix. Available: <https://ebce.org/our-power-mix/>. Accessed: July 30, 2021.

¹⁸ California Energy Commission (CEC). n.d. Gas Consumption by County—Alameda County 2019. Available: <https://ecdms.energy.ca.gov/gasbycounty.aspx>. Accessed: July 30, 2021.

¹⁹ California Energy Commission (CEC). n.d. Electricity Consumption by County—Alameda County 2019. Available: <https://ecdms.energy.ca.gov/elecbycounty.aspx>. Accessed: July 30, 2021.

electricity. All buildings within the Planning Area have existing connections to infrastructure, although the vacant areas do not.

REGULATORY SETTING

Federal

There is currently no federal overarching law specifically related to climate change or the reduction of GHG emissions. However, fuel standards have been adopted to reduce GHG emissions from cars and light duty trucks and recent amendments have been proposed.

Corporate Average Fuel Economy Standards

The National Highway Traffic Safety Administration's (NHTSA's) Corporate Average Fuel Economy (CAFE) standards require substantial improvements in fuel economy and reductions in GHG emissions generated by passenger cars and light-duty trucks sold in the United States. On August 2, 2018, NHTSA and EPA proposed amendments to the current fuel efficiency standards for passenger cars and light-duty trucks and new standards for model years 2021 through 2026. Under the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule, current 2020 standards would be maintained through 2026. On September 19, 2019, EPA and NHTSA issued a final action on the One National Program Rule, which is considered Part One 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 GHG vehicle standards by 1) clarifying that federal law preempts State and local tailpipe 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 decision to withdraw California's waiver and finalize regulatory text related to the preemption on September 27, 2019 (84 Federal Register 51310). California, 22 other states, the District of Columbia, and two cities filed suit against Part One of the SAFE Vehicles Rule on September 20, 2019 (*California et al. v. U.S. Department of Transportation et al.*, 1:19-cv-02826, U.S. District Court for the District of Columbia). On October 28, 2019, the Union of Concerned Scientists, Environmental Defense Fund, and other groups filed a protective petition for review after the federal government sought to transfer the suit to the D.C. Circuit (*Union of Concerned Scientists v. National Highway Traffic Safety Administration*). The lawsuit filed by California and others is stayed pending resolution of the petition.

EPA and NHTSA published final rules to amend and establish national CO₂ and fuel economy standards on April 30, 2020 (Part Two of the SAFE Vehicles Rule) (85 Federal Register 24174). The revised rule changes the national fuel economy standards for light-duty vehicles from 46.7 to 40.4 miles per gallon in future years. California, 22 other states, the District of Columbia filed a petition for review of the final rule on May 27, 2020.²⁰

On January 20, 2021, the president issued an executive order directing the EPA and NHTSA to review the SAFE Vehicles Rule and propose a new rule suspending, revising, or rescinding it. On

²⁰ *California et al. v. United States Department of Transportation et al.*, 1:19-cv-02826, U.S. District Court for the District of Columbia.

April 22, 2021, NHTSA issued a notice of proposed rulemaking to repeal the SAFE Vehicles Rule (49 CFR Parts 531 and 533).

Energy Star Program

Energy Star is a joint program of the EPA and the U.S. Department of Energy (DOE). The program establishes criteria for energy efficiency for household products and labels energy efficient products with the Energy Star seal. For example, homes can earn the Energy Star certification if they are verified to meet the EPA's guidelines for energy efficiency. To earn the Energy Star certification in California, site-built or modular homes must meet energy efficiency the performance target as determined by energy modeling through a California Energy Commission- (CEC-) approved software program, construct the home using the preferred set of efficiency measures, and verify that the home meets every item on the National Rater Checklist through a Rater. Energy Star certified homes typically feature more efficient walls, windows, air ducts, HVAC system, and lighting and appliances that allow homeowners to operate their homes using less power and resources.

Carbon Pollution Standards and Clean Power Plan

On August 3, 2015, the EPA finalized the Carbon Pollution Standards, which established national limits on the amount of carbon pollution that new, modified, and reconstructed power plants would be allowed to emit. On the same date, the EPA also finalized the Clean Power Plan, setting national limits on carbon pollution from existing power plants.

State

Statewide GHG Emission Targets and the Climate Change Scoping Plan

Reducing GHG emissions in California has been the focus of the State government for approximately two decades. GHG emission targets established by the State legislature include reducing statewide GHG emissions to 1990 levels by 2020 (Assembly Bill [AB] 32 of 2006) and then reducing them to 40 percent below 1990 levels by 2030 (Senate Bill [SB] 32 of 2016), consistent with the target in Executive Order-30-15. Executive Order S-3-05 calls for statewide GHG emissions to be reduced to 80 percent below 1990 levels by 2050. These targets are in line with the scientifically established levels needed in the United States to limit the rise in global temperature to no more than 2°C, the warming threshold at which major climate disruptions, such as super droughts and rising sea levels, are projected.²¹ Executive Order B-55-18 further recognizes the climate stabilization goal under the Paris Agreement. Based on worldwide scientific agreement that carbon neutrality must be achieved by midcentury, Executive Order B-55-18 establishes a State goal to achieve carbon neutrality as soon as possible but no later than 2045 and achieve and maintain net negative emissions thereafter. Executive Order B-55-18 charges CARB with developing a framework for implementing and tracking progress toward these goals. This executive order extends Executive Order S-3-05 and acknowledges the role of

²¹ United Nations. 2015. *Historic Paris Agreement on Climate Change: 195 Nations Set Path to Keep Temperature Rise Well Below 2 Degrees Celsius*. December 13. Available: <https://unfccc.int/news/finale-cop21>. Accessed: August 16, 2021.

increased carbon sequestration on natural and working lands for the State to achieve carbon neutrality and become net carbon negative.

California's 2017 Climate Change Scoping Plan (2017 Scoping Plan), prepared by CARB, outlines the main strategies California will implement to achieve the legislated GHG emissions target for 2030 and "substantially advance toward our 2050 climate goals."²² It also identifies the reductions needed by each GHG emission sector (e.g., industry, transportation, electricity generation). The State has also passed more detailed legislation to address GHG emissions associated with industrial sources, transportation, electricity generation, and energy consumption, as summarized below.

Transportation-related Standards and Regulations

As part of its Advanced Clean Cars program, CARB established more stringent GHG emission standards and fuel efficiency standards for fossil fuel-powered on-road vehicles. These regulations are projected to reduce GHG emissions from new vehicles by approximately 40 percent in 2025 relative to 2012 model-year vehicles.²³ In addition, the program's zero-emission vehicle (ZEV) regulation requires battery, fuel cell, and plug-in hybrid electric vehicles to make up a growing percentage of California's new vehicle sales. By 2025, when the rules are fully implemented, the statewide fleet of new cars and light-duty trucks will emit 75 percent less smog-forming pollution than the statewide fleet in 2012.²⁴

Executive Order B-48-18, signed into law in January 2018, requires all State entities to work with the private sector to have at least 5 million ZEVs on the road by 2030, 200 hydrogen fueling stations available, and 250,000 electric-vehicle (EV) charging stations installed by 2025. Furthermore, it specifies that 10,000 of these charging stations must be direct-current fast chargers.

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.

In 2007, CARB adopted the Low-Carbon Fuel Standard to reduce the carbon intensity of California's transportation fuels. The Low-Carbon Fuel Standard applies to fuels used by on-road motor vehicles as well as off-road vehicles, including construction equipment. In addition to regulations to address issues related to tailpipe emissions and transportation fuels, the State legislature has passed regulations to address issues related to the number of miles driven in on-road vehicles.

Since passage of SB 375 in 2008, CARB has required metropolitan planning organizations to adopt plans that show reductions in GHG emissions from passenger cars and light-duty trucks in their

²² California Air Resources Board. 2017. *California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target*. November. Pages 1, 3, 5, 20, 25, and 26. Available: https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed: August 16, 2021.

²³ California Air Resources Board. 2021. *Advanced Clean Cars Program*. Available: <https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/about>. Accessed: August 16, 2021.

²⁴ Ibid.

respective regions for 2020 and 2035.²⁵ These plans link land use and housing allocations to transportation planning and related mobile-source emissions. The Metropolitan Transportation Commission (MTC) serves as the metropolitan planning organization for the nine counties in the Bay Area region, including Alameda County, which is where the Planning Area site is located.

Under SB 743, in 2013, the Governor’s Office of Planning and Research (OPR) implemented changes to the California Environmental Quality Act (CEQA) Guidelines, including the addition of Section 15064.3, which requires CEQA transportation analyses to move away from a focus on vehicle delay and level of service.²⁶ In support of these changes, OPR published its *Technical Advisory on Evaluating Transportation Impacts in CEQA*, which recommends that the determination of the transportation impact of a project be based on whether project-related vehicle miles traveled (VMT) per capita (or VMT per employee) would be 15 percent lower than that of existing development in the region.²⁷ OPR’s technical advisory explains that this criterion is consistent with Section 21099 of the California Public Resources Code, which states that the criteria for determining significance must “promote the reduction in greenhouse gas emissions.”²⁸ This metric is intended to replace the use of vehicle delay and level of service to measure transportation-related impacts.

Legislation Associated with Electricity Generation

The State passed legislation that requires increasing use of renewables to produce electricity for consumers. Specifically, California utilities are required to generate 33 percent of their electricity from renewables by 2020 (SB X1-2 of 2011), 52 percent by 2027 (SB 100 of 2018), 60 percent by 2030 (also SB 100 of 2018), and 100 percent by 2045 (also SB 100 of 2018).

Building Energy Efficiency Standards (Title 24, Part 6)

The energy consumption of new residential and nonresidential buildings in California is regulated by the California Code of Regulations (CCR), Title 24, Part 6, Building Energy Efficiency Standards (California Energy Code). The CEC updates the California Energy Code every 3 years with more stringent design requirements to reduce energy consumption, resulting in lower GHG emissions. The 2019 California Energy Code, which took effect on January 1, 2020, requires builders to use more energy-efficient building technologies to comply with requirements regarding energy use. New residential units are required to include solar panels to offset the estimated electrical demands of each unit (CCR, Title 24, Part 6, Section 150.1[c]14). CEC estimates that the 2019 California Energy Code’s combination of required energy-efficient features and mandatory solar panels will result in new residential units that use 53 percent less energy than those that were designed to meet the 2016 California Energy Code. CEC also

²⁵ California Air Resources Board. 2018. *SB 375 Regional Greenhouse Gas Emissions Reduction Targets*. Approved by the California Air Resources Board on March 22, 2018. Available:

<https://www.arb.ca.gov/cc/sb375/finaltargets2018.pdf>. Accessed: August 16, 2021.

²⁶ Governor’s Office of Planning and Research. 2017. *Proposed Updates to the CEQA Guidelines*. November. Available:

http://opr.ca.gov/docs/20171127_Comprehensive_CEQA_Guidelines_Package_Nov_2017.pdf. Accessed: August 16, 2021.

²⁷ Governor’s Office of Planning and Research. 2017. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. November. Available: http://www.opr.ca.gov/docs/20171127_Transportation_Analysis_TA_Nov_2017.pdf. Accessed: August 16, 2021.

²⁸ Governor’s Office of Planning and Research. 2017. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. November. Available: http://www.opr.ca.gov/docs/20171127_Transportation_Analysis_TA_Nov_2017.pdf. Accessed: August 16, 2021.

estimates that the 2019 California Energy Code will result in new commercial buildings that use 30 percent less energy than those that were designed to meet the 2016 California Energy Code, primarily through the transition to high-efficacy lighting.²⁹

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 require the following by 2030: 1) a renewables portfolio standard of 50 percent and 2) a doubling of energy efficiency by 2030, including improvements to the efficiency of existing buildings. These provisions will be implemented by future actions of the CPUC and CEC.

Solid Waste Diversion Regulations

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. As of July 1, 2012, the resulting mandatory commercial recycling required certain businesses that generate 4 cubic yards or more of commercial solid waste per week to arrange recycling services. To comply with this requirement, businesses could either separate recyclables and self-haul them or subscribe to a recycling service with mixed-waste processing. AB 341 also established a statewide recycling goal of 75 percent; under AB 939, the 50 percent disposal reduction mandate still applied to cities and counties.

Cap-and-Trade Program

CARB administers the State's cap-and-trade program, which covers GHG sources that emit more than 25,000 metric tons of carbon dioxide equivalents per year (MTCO₂e/year), such as refineries, power plants, and industrial facilities. This market-based approach to reducing GHG emissions provides economic incentives for achieving GHG emission reductions.

Short-Lived Climate Pollutant Reduction Strategy

In 2014, SB 605 directed CARB, in coordination with other State agencies and local air districts, to develop a comprehensive SLCP Reduction Strategy. In 2016, SB 1383 directed CARB to approve and implement the SLCP Reduction Strategy to achieve the following reductions in SLCPs:

²⁹ California Energy Commission. 2018. *2019 Building Energy Efficiency Standards: Frequently Asked Questions*. March. Available: https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf. Accessed: August 16, 2021.

- 40 percent reduction in CH₄ relative to 2013 levels by 2030,
- 40 percent reduction in HFC gases relative to 2013 levels by 2030, and
- 50 percent reduction in anthropogenic black carbon relative to 2013 levels by 2030.

SB 1383 also establishes the following targets for reducing organic waste in landfills as well as CH₄ emissions from dairy and livestock operations, as follows:

- 50 percent reduction in organic waste disposal relative to 2014 levels by 2020,
- 75 percent reduction in organic waste disposal relative to 2014 levels by 2025, and
- 40 percent reduction in CH₄ emissions from livestock and dairy manure management operations relative to the livestock and dairy sectors' 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 to CCR Title 14 and Title 27. 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.

CARB adopted the SLCP Reduction Strategy in March 2017 as a framework for achieving the CH₄, HFC, and anthropogenic black carbon reduction targets set by SB 1383. The SLCP Reduction Strategy includes 10 measures to reduce 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).

Water Conservation Act of 2009

The overall goal of SB X7-7, the Water Conservation Act of 2009, was to reduce per capita urban water use by 20 percent as of December 31, 2020. The State was required to make incremental progress toward this goal by reducing per capita water use by at least 10 percent by December 31, 2015. This act is an implementing measure of the 2017 Scoping Plan that will continue to be implemented beyond 2020. Reductions in water consumption reduce the amount of energy, as well as the emissions, associated with conveying, treating, and distributing the water; emissions from wastewater treatment are also reduced.

Regional

Metropolitan Transportation Commission

The 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 Alameda County and 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.³⁰ 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 2013.³¹ The next update to Plan Bay Area, Plan Bay Area 2050, was adopted in October 2021. Plan Bay Area 2050 serves as a roadmap for the San Francisco Bay Area's future through 2050.³² For the San Francisco Bay Area, the per capita GHG emissions reduction target applicable to Plan Bay Area 2050 is 19 percent by 2035 (i.e., emissions from vehicles and light-duty trucks compared with 2005 levels).

Bay Area Air Quality Management District

The Bay Area Air Quality Management District (BAAQMD) is the primary agency responsible for addressing air quality concerns in the San Francisco Bay Area, including Alameda County. Its role is discussed further in Section 3.2, *Air Quality*. 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).³³ The CEQA Guidelines also outline methods for quantifying GHG emissions, as well as potential mitigation measures.

Local

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.³⁴

³¹ Metropolitan Transportation Commission and Association of Bay Area Governments. 2017. *Plan Bay Area 2040*. Adopted July 26. Available: <http://files.mtc.ca.gov/library/pub/30060.pdf>. Accessed: August 16, 2021.

³² Association of Bay Area Governments and Metropolitan Transportation Commission. 2021. *Plan Bay Area 2050: A Vision for the Future*, https://www.planbayarea.org/sites/default/files/documents/Plan_Bay_Area_2050_October_2021.pdf, accessed January 3, 2022.

³³ Bay Area Air Quality Management District. 2017. *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. Accessed: August 16, 2021.

³⁴ 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: August 16, 2021.

Union City Green Building and Landscaping Practices, Municipal Code Chapter 15.76

The City of Union City (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.

Union City 2040 General Plan

The City of Union City 2040 General Plan (UC2040) includes the following goals and policies associated with GHGs and energy:

Resource Conservation (RC) Element

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.

Public Facilities and Services (PF) Element

Although implementation of goals and policies of the Public Facilities and Services Element would not be the responsibility of future development projects, future development projects within the Planning Area would be required to comply with these goals and policies which would support appropriate solid waste disposal and recycling.

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.

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.

PF-7: On-Site Storage Facilities for Waste and Recyclable and Compostable Materials — The City shall require the provision of well-designed, adequately sized, safe, convenient, and easily accessible on-site storage facilities for waste and recyclable and compostable materials as part of the development review process or building permit review associated with new construction and buildings that are proposed for improvement, alteration, or expansion; and/or buildings that accommodate new uses that use or handle organic waste in their day-to-day operations.

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.

Mobility (M) Element

Although goals and policies of the General Plan’s Mobility Element are not focused on reduction of GHG emissions, they do support developing streets that focus on safe travel for all users which would in turn encourage alternatives to GHG-producing automotive travel.

Goal M-1: Design and maintain streets to be safe and accessible for all categories of users.

Policy M-1.1: Complete Streets for All Users — The City shall strive to create a comprehensive, integrated network of roadways (including streets, roads, highways, bridges, and other portions of the transportation system) that provide safe, comfortable, and convenient travel for all users, including pedestrians, bicyclists, persons with disabilities, motorists, movers of commercial goods, users and operators of public transportation, emergency responders, seniors, children, youth, and families and includes green infrastructure.

Policy M-1.2: Planning for Complete Streets — The City shall incorporate “complete streets” practices as a routine part of everyday operations, and a factor to be considered in every project, program, and practice relating to the transportation network for all categories of users, and work in coordination with other departments, agencies, and jurisdictions to maximize opportunities for complete streets, connectivity, and cooperation.

Policy M-1.4: Safe Travel for All Users — The City shall ensure complete streets infrastructure sufficient to enable reasonably safe travel along and across the right of way for each category of users is incorporated into all planning, funding, design, approval, and implementation processes for any construction, reconstruction, retrofit, maintenance, operations, alteration, or repair of streets, except that specific infrastructure for a given category of users may be excluded if an exception is approved by the Public Works Director.

Impact Analysis

For the purposes of this EIR, a significant impact would occur if the Proposed Plan would:

- Criterion 1:** Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment;
- Criterion 2:** Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing emissions of GHGs;
- Criterion 3:** Result in potentially significant environmental impact due to wasteful, inefficient, and unnecessary consumption of energy during project construction, operation, and/or maintenance; or,
- Criterion 4:** Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

CEQA Guidelines Section 15064.4 provides guidance to lead agencies for determining the significance of environmental impacts pertaining to GHG emissions. CEQA Guidelines Section 15064.4(a) states that a lead agency should make a good-faith effort that is based, to the extent possible, on scientific and factual data to describe, calculate, or estimate the amount of GHG emissions that would result from implementation of a project. 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 v. Department of Fish and Wildlife* (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) performance-based reductions, (3) numeric "bright-line" thresholds, (4) efficiency-based thresholds, and (5) compliance with regulatory programs.

APPLICABILITY OF AVAILABLE THRESHOLDS

The following sections discuss the threshold approaches recommended by the Courts and supported by CEQA and analyzes their applicability to the Proposed Plan.

Compliance with a Qualified GHG Reduction Strategy

OPR acknowledges that the State legislature encourages lead agencies to tier or streamline their environmental documents whenever feasible, and that GHG emissions may be best analyzed and mitigated at the programmatic level. A qualified plan may be used in the cumulative impact analysis for later projects when the analysis "identifies those requirements specified in the plan that apply to the project." For a GHG reduction plan to be considered a qualified plan, it must meet certain criteria established under CEQA Guidelines Sections 15183.5 (b) and 15064.4, also specified above. Consequently, if a project is consistent with a local CAP that was created to meet that area's fair share reductions towards the AB 32 GHG target for 2020, then the project would be considered consistent with statewide GHG reduction goals for 2020. In addition, if a CAP was adopted that was consistent with the State's overall goals for post-2020, including the downward trajectory as clarified in SB 32 and EO S-03-05, and a project is consistent with that CAP, it would be considered consistent with the State's post-2020 GHG emission strategy. Section 15183.5 also specifies that the project's CEQA analysis "must identify those requirements specified in the plan that apply to the project, and, if those requirements are not otherwise binding and enforceable, incorporate those requirements as mitigation measures applicable to the project."

As discussed under Regulatory Setting, the City of Union City adopted a CAP in 2010 to meet 2020 targets. It has not been updated to address emissions beyond 2020; therefore, tiering per CEQA Guidelines Section 15183.5 is not an applicable option to assess the Proposed Plan's GHG impacts.

Performance-Based Reductions

Performance-based thresholds are based on a percentage reduction from a projected future condition; for example, reducing future business-as-usual (BAU) emissions by the AB 32 target of 29 percent (below 2020 BAU levels) through a combination of State measures, project design features (e.g., renewable energy), or mitigation. The BAAQMD recommends a 26 percent reduction from 2020 BAU levels to meet the AB 32 target.

Based on the court's reasoning in the Newhall Ranch decision, relating a given project to the achievement of State reduction targets may require adjustments to CARB's statewide BAU model to not only isolate new development emissions, but also to consider unique geographic conditions and operational characteristics that may affect the performance of reduction measures in certain locations. To date, this type of adjustment to the statewide BAU target has not been performed and, therefore, is not appropriate for the Proposed Plan's analysis. The primary value of a performance-based target, as indicated in the Newhall Ranch decision, is that it can provide a scenario by which to evaluate the effectiveness of a project's reduction efficiency relative to an unmitigated condition. As such, future year targets can be used to benchmark performance, using either statewide or regional emission targets, to determine a project's fair share of mitigation.

Numeric Bright-Line Thresholds

Numerical bright-line thresholds identify the point at which additional analysis and mitigation of project-related GHG emission impacts is necessary. The BAAQMD has not developed bright-line thresholds for construction, but has for the operation of land use development projects (1,100 MTCO_{2e}/year) and stationary-source (10,000 MTCO_{2e}/year) projects. The land use development threshold is based on a gap analysis and ties back to the State's AB 32 reduction target (1990 levels by 2020).³⁵ Because the buildout year for the Proposed Plan is 2040, use of BAAQMD's numeric-bright line land use development threshold tailored to 2020 reduction targets would not be appropriate for the Proposed Plan's analysis.

The stationary-source threshold is derived from the California Air Pollution Control Officers Association's capture rate analysis of required reductions needed to meet EO S-3-05, which indicates that in order to reach the 2050 milestone, future BAU emissions will need to be reduced by 90 percent. The stationary-source threshold is used, in part, to analyze project impacts and is further discussed below, under Project Threshold Approach.

Efficiency-Based Thresholds

Another type of quantitative threshold is an efficiency-based threshold. Efficiency-based thresholds represent the GHG efficiency needed for development to achieve California's GHG emissions targets. Although the Newhall Ranch decision did not specifically recommend the efficiency-based approach, the ruling did note that numerical threshold approaches may be appropriate for determining significance of GHG emissions and to emphasize the consideration of GHG efficiency. Efficiency-based thresholds allow lead agencies to compare projects of various types, sizes, and

³⁵ In December 2021, BAAQMD provided proposed updates to their GHG thresholds, which they expect to be adopted in 2022. These proposed updates are considered draft and have not been adopted at the time of this analysis.

locations equally, and determine whether a project is consistent with the State's reduction goals. Efficiency-based thresholds for a residential project can be expressed on a per-capita basis, for an office project on a per-employee basis, or for a mixed-use project on a per service population (the sum of jobs and residents) basis.

The BAAQMD has developed GHG efficiency thresholds for land use projects (4.6 MTCO₂e per service population) and plans (6.6 MTCO₂e per service population) with GHG emissions resulting from a mixture of building energy, transportation, solid waste, and other emissions. These threshold values are based on the required efficiency emissions that these sources must achieve per service population (i.e., per the sum of jobs and residents) to meet the State's 2020 reduction targets. Because the buildout year for the Proposed Plan is 2040, the use of BAAQMD's performance-based thresholds tailored to 2020 reduction targets would not be appropriate for the Proposed Plan's analysis.

CARB recommends statewide efficiency targets of no more than 6 MTCO₂e per capita by 2030 and no more than 2 MTCO₂e per capita by 2050. These targets were derived based on total statewide emissions from all emission categories (including emissions from stationary and industrial sources) and the reductions needed to achieve California's 2030 statewide target under SB 32 and the longer-term EO S-3-05 reduction goal of 80 percent below 1990 levels by 2050.

Because CARB's per capita efficiency targets are based on statewide emissions, they represent an average efficiency that does not specifically consider the unique geographic and project-specific features that could influence emissions reductions achieved by the Proposed Plan. The targets are also based on an inventory of GHG emissions from existing and future development through 2050, and therefore do not isolate the required emissions reductions from new development that are needed to meet State goals. Tailoring CARB's per capita targets to local project conditions is not possible with the available data published in the 2017 Climate Change Scoping Plan. Moreover, the thresholds evaluate emissions per person or resident; the Proposed Plan includes residential development, as well as a sizeable area of commercial development. Accordingly, CARB's efficiency targets are not appropriate thresholds to independently evaluate the significance of the Proposed Plan's GHG emissions.

Compliance with Regulatory Programs

A lead agency could rely on regulatory compliance to show a less-than-significant GHG impact if a project complies with or exceeds those programs adopted by CARB or other State agencies. However, such analysis is only applicable within the area governed by the regulations. For example, consistency with regulations addressing building efficiency would not suffice to determine that a project would not have significant GHG emissions from transportation.

The Newhall Ranch decision specifically mentions consistency with both the SCS (per SB 375) and AB 32 as potential mechanisms for evaluating significance. A lead agency could assess project-level consistency with AB 32 in whole or part by evaluating whether a project complies with applicable policies in the AB 32 Scoping Plan. The AB 32 Scoping Plan does not consider deeper reductions needed to meet the State's 2030 target under SB 32. Accordingly, exclusively relying on consistency with the AB 32 Scoping Plan and related programs to evaluate emissions generated by land use

development projects constructed after 2020 would not fully consider a project's potential GHG impacts to the State's long-term reduction trajectory.

More recent guidance on GHG reduction strategies and thresholds for operational emissions has been provided at the state level through the 2017 Scoping Plan, OPR, and CARB. The 2017 Scoping Plan outlines GHG reduction strategies by emission sector (water, transportation, and energy) required to meet the State's 2030 target under SB 32. OPR guidance specifies that a "land use development project that produces low VMT, 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." Further, CARB guidance specifies per capita VMT reduction targets that would be needed statewide to meet long-term (2050) mobile-source GHG reduction targets, considering increased vehicle efficiency and reduced carbon content in vehicle fuels.

To the extent the Proposed Plan's policies are applicable to GHGs and comply with or exceed the regulations outlined in the 2017 Scoping Plan and adopted by CARB or other State agencies, the Proposed Plan could appropriately rely on their use as showing compliance with performance-based standards adopted to fulfill the statewide goal for reducing GHG emissions. The Proposed Plan's compliance with regulatory programs adopted by CARB and other State agencies is therefore used to evaluate the significance of the Proposed Plan's GHG emissions. While the regulatory framework to achieve long-term (post-2030) emissions reductions is in its infancy, many of the programs outlined in the 2017 Scoping Plan are likely to be carried forward or have already been adopted with post-2030 requirements (e.g., RPS). Accordingly, evaluating consistency with these programs and relevant guidance published by OPR and CARB for the reduction of long-term emissions is therefore also considered in the analysis of the Project's emissions.

Project Threshold Approach

As discussed above, BAAQMD's CEQA Guidelines do not identify a GHG emission threshold for construction-related emissions. Instead, 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 BMPs to reduce GHG emissions during construction, as feasible and applicable. This approach is used to evaluate construction-generated emissions.

Although BAAQMD has adopted GHG thresholds for operational emissions from land use development projects (numeric and efficiency), these thresholds are based on the State's 2020 target under AB 32 and do not consider deeper reductions needed to meet the State's 2030 target under SB 32. Accordingly, exclusively relying on BAAQMD's adopted thresholds to evaluate emissions generated by land use development projects constructed after 2020 would not fully consider a project's potential GHG impacts to the State's long-term reduction trajectory. Similarly, the City of Union City does not have a qualified GHG reduction plan that addresses post-2020 emissions and available statewide BAU and efficiency-metrics do not meet recommendations from the Courts for appropriate project-level GHG thresholds.

Based on the available threshold concepts recommended by air districts and the courts, GHG emissions from the Proposed Plan are evaluated on a sector-by-sector (e.g., mobile, energy, water, etc.) basis using the most applicable regulatory programs, policies, and thresholds recommend by BAAQMD, CARB, and OPR, as described below (“compliance with regulatory programs”). The Proposed Plan would have a buildout year of 2040. The State has a reduction goal of carbon neutrality set by 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 Scoping Plan was adopted to meet this goal. Therefore, 2030 marks the next statutory statewide milestone target applicable to the Proposed Plan. The analysis herein thus focuses on the 2030 target and the plans, policies, and regulations adopted pursuant to achieving 2030 reductions. Operational emissions generated by the Proposed Plan at full buildout (i.e., 2040) are used as an indicator for long-term emissions reduction progress and are evaluated as they relate to the Proposed Plan’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 Scoping Plan recognizes that while 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 CARB analysis demonstrate that a 14.3 percent reduction of VMT per capita by 2050 (compared to a 2015-2018 average) would be needed statewide to meet their long-term climate change planning goals through 2050. This reduction target is consistent with recent OPR guidance issued on SB 743. The Proposed Plan would be constructed after 2020 and has a proposed buildout year of 2040 or later. Accordingly, use of CARB’s 14.3 percent reduction of VMT per capita threshold for mobile-source emissions is applicable to the Proposed Plan. Mobile-source emissions would be considered less than significant if the Proposed Plan achieves a per capita VMT reduction of at least 14.3 percent (compared to a 2015-2018 average). In addition to VMT reductions, 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.

Energy, Water, Waste, Area, and Land Sources

CARB’s 2017 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. Projects that implement applicable strategies from the 2017 Scoping Plan would be consistent 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 Plan is conducted to evaluate consistency with the 2017 Scoping Plan. This assessment also considers recent OPR guidance related to the long-term reduction of statewide emissions. Accordingly, energy, water, waste, area, and land use source emissions would be considered less than significant if the Proposed Plan is consistent with all applicable 2017 Scoping Plan strategies and supporting regulations and guidance.

Stationary Sources

BAAQMD has adopted a threshold of 10,000 MTCO₂e for stationary-source projects. This threshold is consistent with stationary-source thresholds adopted by other air quality management districts throughout the state. The threshold level is intended to capture 95 percent of all GHG emissions from new permit applications from stationary sources in the SFBAAB and would do so by capturing only the large, significant projects since permit applications with emissions above the 10,000 MTCO₂e threshold account for less than 10 percent of applications. Stationary sources that would be developed for each individual development project, or a combination of these projects, would be subject to the permitting requirements by the BAAQMD. Stationary sources are discussed qualitatively, because details of future projects and their stationary sources are currently unknown.

METHODOLOGY AND ASSUMPTIONS

Greenhouse gas and energy impacts associated with construction and operation of the Proposed Plan were assessed and quantified (where applicable) using standard and accepted software tools, methodologies, and emission factors. A summary of the methodology is provided below. A full list of assumptions can be found in Appendices A and B.

Construction

As discussed in Chapter 2, Project Description, of this Draft EIR, the Proposed Plan would facilitate development of a mix of uses including a range of housing options, as well as commercial and retail spaces across the approximately 471-acre Planning Area. Implementation of the Proposed Plan could ultimately result in the removal of up to approximately 496,000 square feet (sf) of industrial uses and a net new development area of up to 3,930 residential units, 4,767,000 sf of office use, and 133,000 sf of retail use. The land uses that could be developed under the Proposed Plan would generate construction-related GHG emissions from mobile and stationary construction equipment exhaust, employee and haul truck trips, and electricity consumption. The specific size, location, construction techniques and scheduling that would be utilized for each future individual development project occurring within the Planning Area from implementation of the Proposed Plan is not currently known. With an anticipated buildout year of 2040, development of the various land uses associated with the Proposed Plan would be expected to be spread over an extended period of time and would depend on factors such as local economic conditions, market demand, and other financing considerations. As such, without specific project-level details it is not possible to develop a refined construction inventory. Consequently, the determination of construction GHG impacts for each individual development project, or a combination of these projects, would require the City to speculate regarding such potential future project-level environmental impacts. Thus, in the absence of the necessary construction information required to provide an informative and meaningful analysis, the evaluation of potential construction-related GHG impacts resulting from implementation of the Proposed Plan is conducted qualitatively in this Draft EIR.

Operations

Long-term operational activities of the Proposed Plan would result in GHG emissions from mobile-, area-, energy-, water-, and solid waste-source emissions. As stated in Chapter 2, Project Description, buildout of the 20-year planning horizon of the Proposed Plan included existing

development, pipeline development, and new development. The land uses categorized as “existing development” would remain unchanged through 2040, land uses categorized as “pipeline development” included projects that are being reviewed or have been approved by the City, but not yet constructed, and “new development” includes the future development within the Planning Area. Since existing development would remain unchanged, the GHG analysis focuses on the net change in development which would include the land uses associated with the pipeline and new development categories. The only existing land uses analyzed in the GHG analysis are the industrial land uses to be removed in the Station East and Gateway subareas. GHG emissions for the industrial land uses to be removed were quantified using a baseline year of 2020 and are accounted for in the GHG analysis. Please refer to Appendix A for detailed summary of data utilized in this analysis and CalEEMod output files.

Mobile

GHG emissions from motor vehicles were estimated using emission factors from CARB’s Emission FACtor model, EMFAC2021, and daily vehicle trips and daily vehicle miles traveled (VMT) described in Chapter 3.12, Transportation, and Appendix F, *Traffic Model Data*, of this EIR. Daily trips and VMT accounted for trip reductions achieved by quantifiable policies, including proximity to transit and mixed-use design. The daily VMT also accounts for the removal of the existing industrial land uses. Upon full buildout, the Proposed Plan would result in a net increase of 56,660 daily trips and have a daily VMT of 856,834. Annual trips and VMT were estimated using 347 days of operation per year. GHG emissions from vehicle travel were calculated by multiplying the annual VMT estimates by the appropriate emission factors provided by EMFAC2021. Other GHG emissions from engine starts and idling were calculated by multiplying the annual trips by the appropriate emission factors provided by EMFAC2021.

Area

Area-source emissions were estimated using the California Emissions Estimator Model (CalEEMod), version 2020.4.0. Area sources included emissions from natural gas combustion in residential fireplaces and use of landscape maintenance equipment. The annual activity of natural gas combustion in residential fireplaces and landscaping equipment is based on CalEEMod default assumptions. Area-source emissions from the industrial land uses to be removed were accounted for in the analysis.

Energy

GHG emissions from energy sources were estimated using CalEEMod and include emissions from the combustion of natural gas for building heating and hot water, as well as the use of electricity. The electricity provider for the Planning Area is East Bay Community Energy (EBCE). The CO₂e intensity of EBCE-provided “Bright Choice” electricity for 2019 was 135.10 pounds per megawatt-hour (lb/MWh), and the emissions factor for “Brilliant 100” and “Renewable 100” was 0 lb/MWh.³⁶ Fifteen percent of EBCE’s customers currently subscribe to the Brilliant 100 or Renewable 100 plan.

³⁶ EBCE, 2020 Power Content Label.

https://res.cloudinary.com/diactiwk7/image/upload/v1633633889/CEL_EBC_Brochure_PowerContentLabel2020_v8_b_WEB_tarbht_1_jn9xuv.pdf, accessed February 2, 2022.

Based on California's renewable portfolio standards requirements, EBCE would be required to have renewable energy sources account for 50 percent of its power mix by 2030 and 100 percent of its power mix in 2045, resulting in a CO₂e intensity factor of 0 lb/MWh. Since the Planning Area would have a buildout year of 2040, the 2040 intensity factor would be 31.2 lb/MWh based on linear interpolation of the 2019 and 2045 CO₂e intensity values.³⁷

Water

GHG emissions from water and wastewater are related to the energy required to supply, distribute, and treat. Wastewater also results in emissions of GHGs from wastewater treatment systems. Emissions were calculated using CalEEMod and were based on the water usage rates for the land uses, the electrical intensity factors for water supply, treatment, distribution, and for wastewater treatment, and the GHG emission factors for the electricity utility provider (PG&E).

Solid Waste

GHG emissions from solid waste disposal are also calculated using CalEEMod. The GHG emission factors, particularly for CH₄, depend on characteristics of the landfill, such as the presence of a landfill gas capture system and subsequent flaring or energy recovery. The default values, as provided in CalEEMod, for landfill gas capture (e.g., no capture, flaring, energy recovery) are statewide averages and were used in the analysis.

Energy

Energy impacts associated with construction and operation of the Proposed Plan 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

³⁷ Electricity emissions for the Proposed Plan were modeled in CalEEMod using emission factor assumptions for PG&E rather than EBCE. The emission factors applicable to PG&E are slightly different than the emission factors applicable to EBCE. Specifically, in 2040, the emission factor used for modeling for PG&E is 40.2 lb/MWh compared to 31.2 lb/MWh for EBCE. As a result, the electricity emissions modeled for the Proposed Plan are slightly higher than what would be modeled using assumptions for EBCE. Thus, the electricity emissions modeled for the Proposed Plan are conservative and the significance conclusions are not affected by the difference in emission factor assumptions.

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.

The Proposed Plan's energy consumption values were based on the net increase in energy consumption. Electricity and natural gas would be consumed by residences and commercial buildings. Gasoline and diesel would be consumed by vehicles traveling to and from the Proposed Plan's land uses and are based on an annual vehicle miles traveled (VMT) of 297,321,398.

The net increase in consumption is based on energy consumption from the Proposed Plan's future development (Pipeline Projects + New Development) minus energy consumption related to the existing industrial land uses to be removed as part of the Proposed Plan's implementation. Existing land uses within the Planning Area that are to remain were not evaluated; this assumption is consistent with the air quality, GHG, and transportation analyses.

RELEVANT PROPOSED GOALS AND POLICIES

Land Use

- G-LU-1 **Variety of Land Uses.** Enhance the Station District as a mixed-use area with a variety of housing types, employment generating uses and commercial uses including retail, restaurants and services.
- G-LU-3 **Walkable Destination.** Create a compact, walkable, pedestrian oriented District with connections to transit.
- P-LU-5 **Diverse Housing Types.** Promote a diverse range of housing types to accommodate a variety of household types.
- P-LU-6 **Supportive Housing Amenities.** Facilitate opportunities to incorporate innovative design and program features into affordable housing developments, such as on-site health and human services, community gardens, car-sharing, and bike facilities. Support the development of projects that serve homeless and special needs populations.

The Core

P-LU-13 **Mix of Uses.** Allow for a mix of uses to support a healthy jobs / housing balance and provide for both a day and nighttime population within the area.

Station East

P-LU-17 **Station East 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, research and development, advanced manufacturing) and 35 percent high-density residential uses including residential mixed-use developments with ground floor commercial along the City's major thoroughfares.

The Marketplace

P-LU-23 **Mix of Uses** - Ensure that new development contributes to a vibrant, walkable, mixed use area, which supports the following:

- A mix of small, local commercial businesses and large anchor stores, which, in part, meet the needs of local residents;
- Development of an indoor Public Market, which supports a variety of commercial uses and provides an opportunity for smaller, artisan businesses;
- Residential and office uses occupying buildings above the ground floor;
- Parking accommodated in a more innovative way. (e.g. parking structures, smaller parking lots distributed through the area);
- Buildings designed to create a pedestrian-scale and ambiance suitable for walking.

Gateway

P-LU-25 **Mix of Housing Types.** Support a mix of housing types including an "agrihood" concept, where housing and on-site community facilities are integrated with agricultural uses, such as community gardens, that could be public or private.

Civic Center

P-LU-29 **Focus on Improved Connections.** Encourage existing civic uses to become more cohesively integrated with the greater Station District, with new pedestrian and bicycle connections.

Urban Design

G-UD-07 **Urban Development.** Promote compact development patterns and an urban feel through higher intensity development and quality design

G-UD-08 **Sustainability.** Continue to promote green leadership in Union City and expand the Station District as a green and healthy community.

P-UD-26 **Sustainability.** Ensure that development incorporates sustainable site design measures such as permeable paving, stormwater management, and water efficient landscaping.

Mobility

G-M-1 **Multi-modal Street Network.** Provide a well-connected street network that serves all users and prioritizes safety and multi-modal access and connectivity.

G-M-2 **Pedestrian Network.** Complete the pedestrian network within the Planning Area to provide a safe, efficient, and comfortable system for trips within the Planning Area and surrounding areas.

G-M-3 **Bicycle Network.** Complete the bicycle network within the Planning Area to provide a safe, connected, and comfortable system for trips within the Planning Area and surrounding areas.

G-M-4 **Transit Service.** Ensure frequent, safe, and reliable transit service within the Station District.

G-M-6 **Parking.** Proactively manage the on- and off-street parking supply to meet demand, while minimizing the land dedicated to and the costs associated with parking.

G-M-7 **Reduce Single-occupant Automobile Travel.** Reduce the reliance on single-occupant motor vehicles and the parking supply by incentivizing other modes of travel.

P-M-2 **New signals.** As part of the new developments in the Marketplace Subarea, install new traffic signals on Decoto Road midway between Alvarado-Niles Road and Union Square and potentially on Alvarado-Niles Road midway between Decoto Road and Union Square, replacing the existing pedestrian hybrid beacon (HAWK) to improve the multi-modal access and connectivity in the area.

P-M-4 **Sidewalk Gaps.** Complete the existing sidewalk gaps. Require new development to install sidewalks along their frontages.

P-M-5 **Decoto Road Pedestrian Improvements.** Coordinate with Alameda County Transportation Commission to implement pedestrian improvements along Decoto Road corridor.

P-M-7 **Non-motorized Crossing of Railroad Tracks.** Prioritize the completion of the non-motorized crossing (future pedestrian bridge/tunnel) of the Niles Subdivision UPRR tracks to improve the connectivity of the Station East Subarea to the Core Station Area.

- P-M-9 **Implement the 2021 BPMP.** Implement the policies and complete the bicycle network recommended in the adopted BPMP and shown in Figure 5.12 to connect key locations within the Planning Area.
- P-M-12 **Bus Stops.** Coordinate with AC Transit and UC Transit to identify and improve bus stops within the Station District. Improvements may consist of:
- Relocating bus stops to improve bus operations, such as relocating stops from the near-side to the far-side of signalized intersections and/or improving pedestrian access, such as relocating bus stops closer to signal-protected crossings.
 - Providing bus stop amenities, such as bus stop signs, wayfinding maps, bench and/or shelter pursuant to AC Transit Multimodal Corridor Guidelines.
 - Requiring projects that develop or redevelop sites with existing and/or proposed bus stops along their frontage(s) to relocate and/or upgrade bus stops consistent with this policy.
- P-M-13 **Bicycle Access at Intermodal Station.** Coordinate with BART to ensure adequate bicycle parking at the Intermodal Station and that the Intermodal Station provides safe and convenient pedestrian and bicycle connections that connect to the adjacent streets and paths.
- P-M-14 **Mobility Hubs.** Coordinate with BART and Alameda CTC on implementing a mobility hub at the Intermodal Station, which would integrate various transportation services and amenities to offer convenient first and last-mile non-automobile connections at the Intermodal Station.
- P-M-20 **Bicycle Parking for New Developments.** Require all future developments to provide long-term and short-term bicycle parking supply consistent with Table 5-4.
- P-M-21 **Electric Vehicle Charging for New Developments.** Provide electric vehicle charging stations as part of new developments within the Station District. The supply and design of electric vehicle charging stations shall be consistent with the California Green Building Standards Code.
- P-M-22 **Unbundled Parking for new developments.** Allow unbundled automobile parking in residential developments with common parking facilities, where residents pay for parking separately from the sales price or rent for the housing unit.
- P-M-24 **Shared Parking for New Developments.** Encourage mixed use developments to provide shared parking with minimal assigned parking, to minimize the total amount of new parking constructed.
- P-M-26 **Parking Management on Public Off-street and On-street Facilities.** Continue to actively manage the on-street and public off-street parking to:

- Designate parking on streets with commercial frontage as either metered or time-limited to encourage turnover and availability of parking.
- Minimize parking spillover into the adjacent residential streets.
- Adjust parking meter hours and prices, as well as monthly prices to control demand.

P-M-27 **TDM Plans.** Require developments generating more than 50 peak hour trips to develop and implement a TDM Plan, consisting of both infrastructure improvements and operational strategies, to reduce the number of drive-alone trips.

P-M-28 **Design Features that Reduce Automobile Use.** Update zoning requirements to ensure that the design of future developments include features that reduce the use of automobiles, such as on-site showers and lockers for non-residential developments, on-site childcare center for large employers, and on-site business center for residential developments.

Infrastructure

G-PF-7 **Public Utilities.** Facilitate the development and maintenance of all utilities at the appropriate levels of service to accommodate the City's projected growth.

P-PF-7 **Utility Connections.** Require connections to the water distribution and sanitary sewer concurrently with construction of new roadways to maximize efficiency and minimize disturbance due to construction activity.

P-PF-8 **Water Efficient Appliances and Fixtures.** Require new development to install water efficient appliances and fixtures such as low-flow faucets and toilets.

P-PF-9 **Water Efficient Landscape.** Require new development to comply with the State and the City's mandatory water efficient landscape ordinance (WELO).

P-PF-10 **Rainwater and Greywater.** Allow the use of rainwater harvesting systems, consistent with regional permit requirements. Encourage use of greywater for irrigation.

P-PF-12 **Stormwater Management.** Design new streetscape and landscaped areas in the public right-of-way for stormwater management and the efficient use of water through:

- The installation of low-maintenance, drought-resistant plant palettes;
- Use of large detention basins to temporarily hold stormwater and release it slowly, metering the flow
- Use of low-flow irrigation systems; and/or
- Use of bioswales and rain gardens in planting areas, curb extensions, and other green infrastructure.

- P-PF-13 **Low Impact Landscape Design.** Require new development to incorporate low impact landscape design, such as drought-tolerant landscaping, natural drainage systems and groundwater recharge features, consistent with stormwater permit requirements.
- P-PF-19 **Water Reduction and Recycling.** Require all new development to participate in all recycling and hazardous waste reduction and solid waste diversion programs in effect at the time of issuance of building permits.
- P-PF-20 **Recycling.** Require for recycling and organics recycling in all new multifamily and non-residential development.

IMPACTS

Impact 3.5-1 Development under the Proposed Plan would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. (Significant and Unavoidable)

Construction

Construction associated with new land use developments under the Proposed Plan would result in the temporary generation of GHG emissions within the Planning Area. Emissions would originate from mobile and stationary construction equipment, worker and haul truck trips traveling to and from project sites, and electricity consumption. Construction-related GHG emissions would vary substantially depending on the level of activity, length of the construction period, specific construction operations, types of equipment, and number of personnel.

By its nature as a specific plan, the Proposed Plan does not propose any specific development except those projects currently under environmental review or approved, but not yet constructed. Construction of land use developments allowable under the Proposed Plan would occur intermittently within the Planning Area throughout the course of the 20-year buildout period. As the timing and intensity of future development projects is not known at this time, the precise effects of construction activities associated with buildout of the Proposed Plan cannot be quantified at this time. Project-specific details of future development within the Planning Area is currently unknown, because development would be driven by market conditions, site constraints, land availability, and property owner interest. It is assumed that implementation of the Proposed Plan ultimately could result in the removal of up to 496,000 sf of industrial uses and a net new development area of up to 2,520 residential units, 3,567,000 sf of office use, and 102,000 sf of retail use. As such, it is anticipated that in any given year, multiple land use development projects would be constructed within the Planning Area.

As noted previously, 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 implement feasible BMPs. Therefore, construction-related GHG emissions from the Proposed Plan would be required to comply with Mitigation Measure GHG-1 which would reduce construction emissions

consistent with BAAQMD guidance and statewide emission reduction goals. Union City currently requires construction and demolition projects to recycle at least 65 percent of the local construction and demolition debris generated by a project, and all Portland cement, concrete, asphalt concrete, non-contaminated soils, land-clearing debris, and plant debris. Project applicants must submit a Waste Management Plan to the City and update the City with all recycling and disposal receipts at least every 30 days. Mitigation Measure GHG-1 would build on this policy to require compliance with other BAAQMD best management practices for building with local material and using alternative-fueled construction vehicles. Accordingly, this impact would be less than significant with the incorporation of mitigation.

Operation

Operation of the Proposed Plan would generate direct and indirect GHG emissions. Sources of direct emissions include mobile vehicle trips, onsite natural gas combustion, and landscaping activities. Indirect emissions would be generated by building electricity consumption, waste and wastewater generation, water use, and solid waste. GHG emissions for the industrial land uses to be removed were evaluated using an analysis year of 2020 and the Proposed Plan’s GHG emissions for full buildout were evaluated using an analysis year of 2040. Emissions estimates in Table 3.5-3 represents the net change in GHG emissions (Proposed Plan Development minus Existing Uses to be Removed) for the Proposed Plan.

Table 3.5-3: Annual GHG Emissions from the Operation of the Proposed Plan at Full Buildout

<i>Scenario/Source Category</i>	<i>Annual GHG Emissions (MTCO₂e/year)^a</i>
496,000 SF (11 Acres) Existing Industrial Uses to Be Removed (2020)^b	
Area	< 1
Electricity	344
Natural Gas	654
Waste	309
Water	214
<i>Existing to be Removed Total</i>	<i>1,522</i>
Full Buildout of Proposed Plan (2040)	
Area	542
Electricity	1,885
Natural Gas	5,930
Mobile ^c	101,760
Waste	3,209
Water	1,677
<i>Proposed Plan Total</i>	<i>115,004</i>
Existing to Be Removed Total	1,522
<i>Proposed Plan Net Total</i>	<i>113,482</i>

Notes:

MTCO_{2e} = metric tons of carbon dioxide equivalents

SF = square feet

^a Values may not add up to the totals shown due to rounding.

^b Industrial land uses to be removed represent 11 acres of the 471-acre Planning Area.

^c Mobile-source emissions associated with industrial land uses to be removed are accounted for in Proposed Plan's mobile emissions.

Source: See Appendix A for modeling files.

The Proposed Plan would result in a net increase of 113,482 MTCO_{2e} annually at full buildout in 2040. The Proposed Plan would achieve additional GHG reductions through voluntary sustainability features that encourage alternative transportation, and passive heating and cooling. However, these strategies were not quantified because the exact number of installed systems and affected structures are currently unknown. The following sections present the sector-by-sector analysis of GHG impacts, consistent with OPR, CARB, and BAAQMD guidance.

Mobile-Source Emissions

GHG emissions associated with on-road mobile sources are generated from future residents and workers living and working within the Planning Area. As shown in Table 3.5-3, emissions from mobile sources represent the largest source of the Proposed Plan's emissions. This increase is primarily driven by the additional VMT expected as a result of the new project land uses. The GHG emissions associated with mobile sources represent emissions from full buildout of the Proposed Plan.

The Proposed Plan includes a suite of policies that would prioritize alternative modes of transportation, such as transit, bicycling, and walking, to reduce per capita VMT as provided in the Methodology and Assumptions section above. As discussed above, CARB acknowledges that reductions in VMT are required to meet the State's long-term climate change goals. Recent CARB analysis demonstrate that a 14.3 percent reduction of VMT per capita by 2050 (compared to a 2015-2018 average) would be needed statewide to meet their GHG planning goals through 2050. As discussed in Section 3.13, *Transportation*, for total VMT per service population, the implementation of the Proposed Plan would increase the total VMT per service population in the Planning Area by less than one percent from 26.1 under 2020 Baseline conditions to 26.3 under 2040 Buildout conditions, which would be about 13 percent above the threshold of significance of 20.1 (15 percent below the existing citywide average), indicating a significant impact for VMT.

The VMT analysis was based on the Alameda County Transportation Commission (CTC) Countywide Travel Demand Model, which is a regional travel demand model and only accounts for the built environment variables that can be incorporated into the model, such as proximity to transit and mixed-use designs which result in quantifiable reductions in daily trips and VMT. Additional Proposed Plan policies supporting variables the model is not sensitive to (such as connectivity within neighborhoods, presence of bicycle and pedestrian facilities, limited parking supply, and transportation demand management (TDM) measures) are not reflected in the VMT estimates.

The Proposed Plan encourages higher-density and mixed-use developments where appropriate, connectivity between neighborhoods and to transit, and walkable design that complements the

existing natural and built environment to reduce VMT. The Proposed Plan further provides the policy framework to guide future development toward land uses that support walking, biking, and transit ridership (goals G-LU-1 and G-LU-3, policies P-LU-13, P-LU-17, P-LU-25, P-LU-29).

In addition to the proposed land use strategy, the Mobility chapter of the Proposed Plan includes multiple policies to reduce the demand for vehicle travel within and through the Planning Area, as well as work with local, regional, and State agencies to implement regional transportation improvements that encourage the use of non-automobile travel modes. The Proposed Plan places a greater emphasis on active transportation infrastructure such as protected bike lanes and enhanced pedestrian crossings, improved transit facilities and services, and Americans with Disabilities Act accessibility (goals G-M-1, GM-2, G-M-3, G-M-4, policies P-M-2, P-M-5, P-M-7, P-M-9, P-M-12, P-M-13, P-M-14, P-LU-5, P-LU-6). The Proposed Plan also includes maximum parking requirements, goal G-M-6, and policies P-M-22 and P-M-24, which aim to discourage automobile usage. Policies P-M-27 and P-M-28 would also require developments to implement TDM measures. In addition, proposed policies strive to develop a multi-modal transportation network that would provide transportation alternatives to the single-occupant vehicle (goals G-M-1, G-M-7, policies P-M-12, P-M-13, P-M-14).

The City shall implement all policies identified in the Land Use and Mobility chapters of the Proposed Plan to reduce the demand for automobile travel within and through the Planning Area, as well as work with local and regional agencies to implement regional transportation improvements.

Although the implementation of these strategies can be expected to reduce the total VMT per service population generated by typical uses in the Planning Area and reduce the magnitude of the impact, their effectiveness cannot be accurately estimated for the expected developments in the Planning Area, because the detailed characteristics of these future development and/or the specific strategies implemented by these future developments cannot be known at this time. Because the Proposed Plan's VMT reduction would not achieve the 14.3 percent reduction target, the Proposed Plan's GHG emissions from mobile sources would conflict with the goals of SB 743 and CARB's long-term climate change planning goals.

Area-Source Emissions

Area sources include gasoline-powered landscaping equipment (e.g., trimmers, mowers) and natural gas combustion in residential fireplaces. As development within the Proposed Plan is constructed throughout the 2020s and 2030s, there will be landscaping equipment that generates emissions. There are no relevant measures in the Scoping Plan for landscaping equipment or fireplaces. However, achieving the State's 2030 and long-term carbon neutral goal (EO B-55-18) will inevitably require the transition away from fossil-fuel powered energy sources, including but not limited to landscaping equipment and natural gas fireplaces. OPR guidance recommends that land use development projects strive to avoid fossil fuels.³⁸ The extent to which the Proposed Plan would result in new fossil-fueled powered landscaping equipment is unknown. Consequently, there

³⁸ Governor's Office of Planning and Research. 2018. Discussion Draft CEQA and Climate Change Advisory. December. Available: http://opr.ca.gov/docs/20181228-Discussion_Draft_Climate_Change_Adivsory.pdf. Accessed: August 16, 2021.

is a possibility that fossil fuel could be used extensively for such equipment throughout implementation of the Proposed Plan. Use of fossil-fueled landscaping equipment and natural gas combustion in fireplaces within the Planning Area would generate GHG emissions that could conflict with the State’s 2030 reduction goal and OPR guidance and with the State’s long-term emission reduction trajectory towards carbon neutrality by 2045.

Energy Emissions

GHG emissions from energy sources included combustion of natural gas for cooking and heating, as well as electricity generation from PG&E. The Scoping Plan outlines strategies to reduce energy demand and fossil fuel use, while increasing energy efficiency and renewable energy generation. These strategies include transitioning to cleaner fuels, greater efficiency in existing buildings, and electrification of end uses in residential and commercial sectors (e.g., electric space heaters, electric water heaters, and electric stovetops).

The Proposed Plan would continue to promote green leadership in Union City by maintaining and expanding the Station District as a sustainable and healthy community with sustainable building and landscape design, sustainable water use and irrigation practices, and reduced energy use. The Proposed Plan would encourage energy efficiency, amongst other features, and would be consistent with the 2017 Scoping Plan’s overall goal of reducing building energy emissions to meet the State’s 2030 GHG reduction target. In addition, OPR recommends that buildings are all-electric (i.e., no natural gas use). Because SB100 obligates utilities to supply 100 percent carbon-free electricity by 2045, all-electric buildings that do not consume any natural gas would not generate any emissions in 2045. Prior to 2045, building electricity will generate progressively less emissions as electricity sources in the state increasingly shift towards renewable sources. Although OPR recommends that buildings use only electricity, future development projects within the Planning Area may be designed with natural gas appliances. As such, it was conservatively assumed all development used natural gas for heating and cooking, which is reflected in the emissions included in Table 3.5-4. The continued consumption of fossil fuels by operation of the Proposed Plan in the energy sector prior to and beyond 2030 would generate GHG emissions from fossil-fueled energy sources and could conflict with the State’s 2030 and long-term emission reduction trajectory toward carbon neutrality by 2045.

Table 3.5-4: Energy Consumption from Existing Industrial Land Uses to Be Removed

<i>Energy Source</i>	<i>Annual Consumption</i>	<i>Million BTU per Year</i>
Electricity (GWh)	4.31	14,706
Natural Gas (MMcf)	11.95	12,392
<i>Total Energy Consumption</i>	-	27,098

Notes:

GWh = gigawatt-hour

MMcf = million cubic feet

Source: ICF, 2021.

Land Use Emissions

Though not quantified, the Proposed Plan would encourage tree planting and landscaping that would increase carbon sequestration. In addition, Chapter 12.60.170 of the Union City Municipal Code, the Tree Conservation Ordinance, would ensure preservation of trees within the Planning Area. While there are no relevant measures in the Scoping Plan or explicit regulatory requirements related to tree planting, the additional trees would be consistent with the Scoping Plan's overall goal of avoiding losses in carbon sequestration and would assist with meeting the State's goals for climate neutrality (e.g., EO B-55-18) beyond 2030.

Waste Emissions

Solid waste may be disposed in landfills or diverted for recycling, composting, or reuse. GHG emissions from landfills are generated through anaerobic breakdown of material. The Scoping Plan aims to reduce waste emissions by diverting waste away from landfills through waste reduction, reuse, composting, and material recovery. In addition, AB 341 requires mandatory recycling for certain commercial businesses. The Proposed Plan would comply with the City's General Plan goals and policies which require new development to provide adequate and easily accessible receptacles for solid waste, recycling, and composting. Compliance with these policies would be consistent with the Scoping Plan and would support AB 341's overall goal of reducing landfilled waste.

Water and Wastewater Emissions

Indirect GHG emissions result from the production of electricity used to convey, treat, and distribute water and wastewater. The amount of electricity required to convey, treat, and distribute water depends on the volume of water as well as the sources of water. Additional wastewater emissions include CH₄ and N₂O, although these are generated by wastewater treatment at individual wastewater treatment plants (WWTP). The Proposed Plan does not include any new WWTPs.

The Scoping Plan outlines objectives and goals to reduce GHGs in the water sector, including using and reusing water more efficiently through greater water conservation, drought tolerant landscaping, stormwater capture, and water recycling. Regulations have further targeted water supply and water conservation (e.g., SB X7-7) through building and landscaping efficiency (e.g., Title 24). The Proposed Plan would support sustainable building and landscape design, as well as sustainable water use and irrigation practices outlined in policy P-UD-26. The Proposed Plan would be consistent with the Scoping Plan's water measures and the State's regulatory programs within the water sector.

Stationary-Source Emissions

Stationary sources associated with future development projects would be subject to permitting requirements, including BAAQMD's 10,000 MTCO₂e threshold. Stationary-source GHG impacts for each individual development project, or a combination of these projects, would require the City to speculate regarding such potential future project-level environmental impacts. Because the GHG emissions related to stationary sources at buildout of the Proposed Plan is currently unknown, the Proposed Plan could exceed with BAAQMD's threshold and conflict with the Scoping Plan.

Conclusion

The Proposed Plan's policies represent a robust suite of possible strategies that would reduce emissions from building energy consumption, area sources, land uses, water consumption, and waste generation. These features are consistent with the 2017 Scoping Plan, and if fully implemented by all land uses within the Planning Area, would significantly reduce GHG emissions from these sources consistent with the State's near-term (2030) and long-term (2045) climate change goals. Although the City, through the Proposed Plan, would encourage implementation of voluntary sustainability features, there is no guarantee that all of these measures will be incorporated into the designs of all future developments. This is a potentially significant impact, because emissions from area and energy sources may conflict with the 2017 Scoping since future development in the Proposed Plan would continue to use natural gas for building heating and cooking, appliances, and fireplaces, and gasoline or other fossil fuels in landscaping equipment prior to and beyond 2030. The magnitude of natural gas and gasoline use for energy and area sources within the Proposed Plan area cannot be known at this time, and thus there is a possibility that such use of fossil fuels could be considered substantial.

Lastly, as discussed above and in Section 3.13, Transportation, the Proposed Plan would not achieve the 14.3 percent VMT per capita reduction target by buildout year (2040). Based on information in Chapter 3.13, Transportation, implementation of VMT reduction strategies would not be adequate to reduce the impact to a less-than-significant level. Therefore, the Proposed Plan's mobile-source GHG emissions conflict with SB 743 and the State's long-term climate change planning goals. Overall, the Proposed Plan would be consistent with policies and plans that encourage energy conservation, energy efficiency, and sustainability; however, GHG emissions from mobile sources would conflict with goals of SB 743; therefore, the Proposed Plan would have a significant and unavoidable impact.

The program-level VMT impact described above does not preclude the finding of less-than-significant impacts for future development projects that achieve the applicable VMT thresholds of significance. Considering that the implementation of the Proposed Plan would result in household VMT per resident and commute VMT per worker lower than the citywide averages, and that the Proposed Plan includes policies and infrastructure improvements that would further reduce the VMT generated in the Planning Area, it is expected that many future developments would achieve the applicable VMT thresholds of significance, and future developments may not conflict with GHG reduction targets in SB 743.

Mitigation Measures

MM-GHG-1: Require Implementation of BAAQMD-recommended BMPs. All applicants within the Planning Area shall require their contractors, as a condition of contract, 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):

- 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).

Significance After Mitigation: Significant and unavoidable

Impact 3.5-2 Development under the Proposed Plan would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. (Construction: Less Than Significant with Mitigation Incorporated; Operations: Significant and Unavoidable)

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. While 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 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 Climate Change Scoping Plan in November 2017 as a framework to achieve the 2030 GHG reduction goal described in SB 32. There is currently no State plan for addressing GHG reductions beyond 2030.

Based on CARB’s 2017 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 Scoping Plan indicates that reductions would need to come in the form of changes pertaining to vehicle emissions and mileage standards, changes pertaining 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 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.

Construction

Construction activities for future development within the Planning Area would result in the temporary generation of GHG emissions. Emissions would originate from the exhaust of both mobile and stationary construction equipment as well as exhaust from employees’ vehicles and haul trucks, and electricity. Construction-related GHG emissions from each specific source would vary substantially, depending on the level of activity, length of the construction period for each development, specific construction operations, types of equipment, and number of personnel.

GHG emissions generated by the construction activities would be short term and would cease once construction is complete.

As described above, BAAQMD has not established a quantitative threshold for assessing construction-related GHG emissions. Rather, BAAQMD recommends evaluating whether construction activities would conflict with statewide emission reduction goals, based on whether feasible BMPs for reducing GHG emissions would be implemented. If a project fails to implement feasible BMPs identified by BAAQMD, its GHG emissions could conflict with statewide emission goals and represent a cumulatively considerable contribution to climate change, which would be a potentially significant impact. Construction-related GHG emissions from the Proposed Plan would be required to comply with Mitigation Measure GHG-1, which would reduce construction emissions consistent with BAAQMD guidance and statewide emission reduction goals. For projects that are required to implement **Mitigation Measure AQ-3, Require Use of Diesel Trucks with 2010-Compliant Model Year Engines**, for construction activities, there would likely be a reduction in GHG emissions from implementation of this measure from Section 3.3, *Air Quality*. Implementation of Mitigation Measure GHG-1 would require future development projects to implement BAAQMD-recommended BMPs which would reduce the level of GHGs associated with construction of the future projects and avoid any conflict with statewide GHG reduction goals, thereby reducing this impact to less than significant with mitigation.

Operations

As discussed in Impact 3.5-1, emissions from area and energy sources would conflict with the 2017 Scoping Plan, since future development in the Proposed Plan's future development would continue to use natural gas for building heating and cooking, appliances, and fireplaces, and gasoline or other fossil fuels in landscaping equipment prior to and beyond 2030. Additionally, as discussed above and in Section 3.13, Transportation, the Proposed Plan would not achieve the 14.3 percent VMT per capita reduction target by buildout year (2040). Based on information in Chapter 13.3, Transportation, implementation of VMT reduction strategies would not be adequate to reduce the impact to a less-than-significant level. Therefore, the Proposed Plan's mobile-source GHG emissions would conflict with SB 743. Because a reduction in GHG emissions from passenger vehicles is one of the objectives of SB 743 and one of the overarching strategies of the 2017 Scoping Plan, operation of the Proposed Project would conflict with the statewide GHG target for 2030 mandated by SB 32. Overall, the Proposed Plan would be consistent with policies and plans that encourage energy conservation, energy efficiency, and sustainability, however, GHG emissions from mobile sources would conflict with goals of SB 743, therefore, the Proposed Plan would have a significant and unavoidable impact.

SB 375 and Plan Bay Area

Environment and transportation are two of four elements that are the focus of MTC's Plan Bay Area 2050. Plan Bay Area 2050 is the MTC's regional transportation plan and 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 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 service population GHG emissions from automobiles and light trucks. As noted in *Regulatory Setting*,

for the San Francisco Bay Area, the per capita GHG emissions reduction target for automobiles and light trucks is 19 percent by 2035, relative to 2005 emissions. The SCS policies include a mix of strategies that encourage compact growth patterns, mixed-use design, 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 Plan's guiding principles are built around the concept of creating a community that promotes sustainability and self-sufficiency for residents, workers, and visitors. Mixed-use development would be strongly promoted, and green-building and transit-oriented development would be encouraged, as would energy efficiency, water conservation, and waste reduction.

The Proposed Plan would allow development that helps accommodate forecasted growth within the Planning Area. Consistent with MTC goals, the Proposed Plan encourages higher-density and mixed-use developments where appropriate, connectivity between neighborhoods and to transit, and walkable design that compliments the existing natural and built environment to reduce VMT. The Proposed Plan further provides the policy framework to guide future development toward land uses that support walking, biking, and transit ridership (goals G-LU-1 and G-LU-3, policies P-LU-13, P-LU-17, P-LU-25, P-LU-29).

In addition to the proposed land use strategy, the Mobility chapter of the Proposed Plan includes multiple policies to reduce the demand for vehicle travel within and through the Planning Area, as well as work with local, regional, and State agencies to implement regional transportation improvements that encourage the use of non-automobile travel modes. The Proposed Plan places a greater emphasis on active transportation infrastructure such as protected bike lanes and enhanced pedestrian crossings, improved transit facilities and services, and ADA accessibility (goals G-M-1, GM-2, G-M-3, G-M-4, policies P-M-2, P-M-5, P-M-7, P-M-9, P-M-12, P-M-13, P-M-14, P-LU-5, P-LU-6). The Proposed Plan also includes maximum parking requirements, goal G-M-6, and policies P-M-22 and PM-24, which aim to discourage automobile usage. Policies P-M-27 and P-M-28 would also require developments to implement TDM measures. In addition, proposed policies strive to develop a multi-modal transportation network that would provide transportation alternatives to the single-occupant vehicle (goals G-M-1, G-M-7, policies P-M-12, P-M-13, P-M-14).

These policies would support alternative transportation within the Planning Area, which could help reduce per service population GHG emissions from passenger vehicles consistent with Plan Bay Area. Thus, the Proposed Plan 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

As discussed above, systemic changes will be required at the state level to achieve California's future GHG reduction goals. Regulations, such as future amendments to the Low Carbon Fuel Standard (LCFS) and 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 Plan

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 low carbon fuel standard amendments and increasingly stringent RPS). Thus, for the foreseeable future, the Proposed Plan 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.

Mitigation Measures

Implementation of Mitigation Measure GHG-1 would require future development projects to implement BAAQMD-recommended BMPs which would reduce the level of GHGs associated with construction of the future projects and avoid any conflict with statewide GHG reduction goals, thereby reducing this impact to less than significant with mitigation. However, emissions from area and energy sources may continue to conflict with the 2017 Scoping Plan since future development in the Proposed Plan's future development would continue to use natural gas for building heating and cooking, appliances, and fireplaces, and gasoline or other fossil fuels in landscaping equipment prior to and beyond 2030. Additionally, GHG emissions from mobile sources would conflict with goals of SB 743. Overall, the Proposed Plan would be consistent with policies and plans that encourage energy conservation, energy efficiency, and sustainability, but emissions from natural gas use and mobile sources could result in plan conflicts. Therefore, the Proposed Plan would result in a significant and unavoidable impact related to GHG plan/policy consistency.

Significance After Mitigation: Less than significant

Impact 3.5-3 Implementation of the Proposed Plan would not cause wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation. (*Less than Significant*)

Development facilitated by the Proposed Plan would involve the use of energy during construction and operation. Energy use during construction would be primarily in the form of fuel consumption to operate heavy equipment, light-duty vehicles, machinery, and generators for lighting. Temporary grid power may also be provided to construction trailers or electric construction equipment. Long-term operation of development projects would require permanent grid connections for electricity and natural gas service to power internal and exterior building lighting, and heating and cooling systems. In addition, the increase in vehicle trips and operation of the regional transportation system associated with potential development could increase fuel consumption.

Construction

Construction and maintenance of future land use development envisioned under the Proposed Plan would result in short-term consumption of energy resulting from the use of construction equipment and processes. CalGreen includes specific requirements related to recycling, construction materials, and energy efficiency standards that would apply to construction of future development envisioned by the Proposed Plan and would minimize wasteful, inefficient, and

unnecessary energy consumption. Construction and operation of projects facilitated by the Proposed Plan would be required to comply with relevant provisions of CalGreen and Title 24 of the California Energy Code, as well as the City’s Water Efficiency Landscaping and Construction and Demolition Debris Recycling Ordinances, which would further avoid wasteful, inefficient, and unnecessary energy consumption.

Operation

Operation of the development facilitated by the Proposed Plan would consume natural gas and electricity for building heating and power, lighting, and water conveyance, among other operational requirements. Additionally, the increase in vehicle trips associated with potential development and daily operation of the regional transportation system would use energy in the form of fuel consumed by propulsion of passenger vehicles, including automobiles, vans and trucks, and transit vehicles, including buses and trains. Increases in motor vehicle trips are primarily a combined function of population and employment growth.

Energy consumption under the Proposed Plan is based on the net increase in energy consumption. Electricity and natural gas would be consumed by residences and commercial buildings. Gasoline and diesel would be consumed by vehicles traveling to and from the Proposed Plan’s land uses and are based on an annual vehicle miles traveled (VMT) of 297,321,398.³⁹

The net increase in consumption is based on energy consumption associated with future development under the Proposed Plan and pipeline projects minus energy consumption related to the existing industrial land uses to be removed as part of the Proposed Plan’s implementation, as shown in Table 3.5-5. Existing land uses within the Planning Area that are to remain were not evaluated. This assumption is consistent with the air quality, GHG, and transportation analyses.

Table 3.5-5: Energy Consumption from Proposed Plan Development (Pipeline Projects + New Development)

<i>Energy Source</i>	<i>Annual Consumption¹</i>	<i>Million BTU per Year</i>
Electricity (GWh)		
Proposed Plan	120.22	410,207
Existing Industrial Land Uses to Be Removed	4.31	14,706
Proposed Plan Net Total	115.91	395,501
Natural Gas (MMcf)		
Proposed Plan	108.31	112,317
Existing Industrial Land Uses to Be Removed	11.95	12,392
Proposed Plan Net Total	96.36	99,925
Transportation Fuels (gallons)²		
Gasoline	9,275,304	1,134,963
Diesel	2,637,157	365,220
Proposed Plan Net Total	-	860,646

³⁹ Annual VMT based on daily VMT of 856,834 and 347 days of operation per year. Information provided by Fehr and Peers.

Total Energy Consumption	-	1,356,073
Per Capita Energy Consumption³	-	91.47
Per Service Population Energy Consumption⁴	-	41.60

Notes:

1. Provided in GWh, MMcf, and gallons, respectively.
2. The gasoline and diesel values represent the Proposed Plan’s fuel consumption. These values account for fuel use associated with existing industrial land uses to be removed.
3. Based on a Planning Area buildout population of 14,400 residents.
4. Based on a Planning Area buildout population of 14,400 residents and 18,200 employees.

GWh = gigawatt-hour
MMcf = million cubic feet

Source: ICF, 2021.

As shown in Table 3.5-5, operation of development associated with implementation of the Proposed Plan would increase the consumption of electricity, natural gas, and transportation fuels. Electricity consumption would increase by 395,501 million BTU per year in 2040, while natural gas consumption would increase by 99,925 million BTU per year. Direct transportation energy demand would also increase by 860,646 BTU per year through the consumption of gasoline and diesel fueled vehicles. Total energy consumption in the Planning Area would increase by 1,356,073 million BTU per year in 2040, which represents an increase of 91.47 million BTU per capita and 41.6 million BTU per service population. Given that the City intends for the Planning Area to have a significant number of employment uses, the per service population metric is most applicable.

The Proposed Plan contains multiple goals and policies that would help minimize the occurrence of inefficient, wasteful, and unnecessary energy consumption during operation of development facilitated by the General Plan. Several Proposed Plan policies support water efficiency and conservation and waste reduction, which would reduce energy consumed via water delivery and waste management (policies P-PF-7, P-PF-8, P-PF-9, P-PF-10, P-PF-12, P-PF-13, P-PF-19, P-PF-20). Multiple policies in the Proposed Plan Mobility Chapter would improve the availability of alternative transportation modes by coordinating with regional transit providers, improving pedestrian and bicycle infrastructure, and promoting Transportation Demand Management measures, therefore helping to reduce congestion and overall demand for transportation fuels (goals G-M-1, G-M-2, G-M-3, G-M-4, G-M-7, policies P-M-12, P-M-13, P-M-14, P-M-20, P-M-27, P-M-28). Additionally, policy P-M-21 would require new developments in the Planning Area to provide electric vehicle charging stations consistent with the California Green Building Standards Code.

The Proposed Plan also identifies infill development and creative reuse and redevelopment of existing sites as the primary means for accommodating future growth. By placing services and amenities close to where people live and work, the land use scenario envisioned by the Proposed Plan would minimize the need to drive and reduce per capita energy consumption and greenhouse gases. Additionally, while development under the Proposed Plan would increase energy consumption in the Planning Area, this concentrated level of development is consistent with the goals of Plan Bay Area’s designation of the Planning Area as a Priority Development Area.

Implementation of the Proposed Plan policies listed above, as well as other policies and implementation programs contained in the 2040 General Plan that would result in indirect energy conservation, such as the promotion of alternative transportation, water conservation, and waste reduction, would promote greater energy efficiency in municipal and community operations and development. Furthermore, the Proposed Plan contains a land-use strategy that actively promotes infill mixed-use and transit-oriented development, which would result greater energy efficiency overall for Planning Area residents, businesses, and operations. Therefore, while energy consumption in the Planning Area would increase with the operation of development under the Proposed Plan and pipeline projects, the Proposed Plan would not result in wasteful, inefficient, or unnecessary consumption of energy. Therefore, this impact would be less than significant.

Mitigation Measures

None required.

Impact 3.5-4 Implementation of the Proposed Plan 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 Plan 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 Union City 2040 General Plan also includes goals and policies that relate to energy use and reduction.

As discussed under Impact 3.5-3, implementation of the Proposed Plan would increase energy consumption relative to existing conditions. However, the Proposed Plan includes multiple policies that support sustainability through water conservation, waste reduction, promotion of alternative transportation, and installation of electric vehicle charging stations in new development. Future development under the Proposed Project would be subject to increasingly robust regulations to meet the State's renewable energy mandates and would be required to comply with Title 24 standards and CALGreen requirements.

Development under the Proposed Plan would 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 Plan, 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. Therefore, buildout of the Proposed Plan would not conflict with or obstruct State or local plans for renewable energy or energy efficiency and this impact would be less than significant.

Mitigation Measures

None required.

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3.6 Geology, Soils, and Seismicity

This section describes the environmental and regulatory setting for geology, soils, and seismicity, including those related to geologic and seismic hazards and soil stability. It also describes impacts related to for geology, soils, and seismicity that would result from implementation of the Proposed Plan and mitigation for significant impacts where feasible and appropriate.

No responses to the Notice of Preparation (NOP) were received regarding geologic or soils issues.

Environmental Setting

PHYSICAL SETTING

Geology and Soils

Regional Geology

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.¹ 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.

Planning Area Geology

The Planning Area is located west of the northwest-trending Hayward fault.² The Hayward fault divides the low-lying, gently sloping, and nearly level alluvial and estuarine landforms that surround San Francisco Bay from the strongly sloping and steep 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.

¹ California Geological Survey (CGS). 2002. California Geomorphic Provinces. (Note 36.)

Available; <https://www.conservation.ca.gov/cgs/Documents/Publications/CGS-Notes/CGS-Note-36.pdf>. Accessed: May 3, 2021.

² City of Union City. 2001. Environmental Impact Report, City of Union City General Plan.

Available: <https://www.unioncity.org/356/General-Plan>. Accessed: May 3, 2021.

The Planning Area is generally flat and mostly lies approximately 25 feet above sea level.³ East of the Planning Area on the other side of the Hayward fault, the East Bay Hills rise steeply above the low-lying flatlands of the Planning Area. Slopes range from 0 percent throughout most of the Planning Area to up to nine percent in the eastern portion of the Planning Area along 7th Street and near Drigon Dog Park.

Soil Properties

Soil is generally defined as the unconsolidated mixture of mineral grains and organic material that mantles the land surfaces of the earth. The characteristics of soil reflect the five major influences on their development: topography, climate, biological activity, parent (source) material, and time.

Figure 3.6-1 shows the surface soil types in the Planning Area that have been mapped by the Natural Resources Conservation Service (NRCS). As shown in Table 3.6-1, Rincon clay loam, Clear Lake clay, and Yolo silt loam are the predominant soil units within the Planning Area. In addition, the Clear Lake, Danville, and Rincon clay and clay loam soils are moderately to highly expansive. Expansive soils can shrink and swell in response to the presence of water, causing foundation and wall cracks, heaving sidewalks, and creating flaws in paved areas. Expansive soils underly the majority of the Station East, The Core, and Civic Center subareas, and the northern portion of The Marketplace subarea. Generally, projects in areas with expansive soils may require special building foundations or grade preparation, such as the removal of expansive soils and replacement with engineered soils.

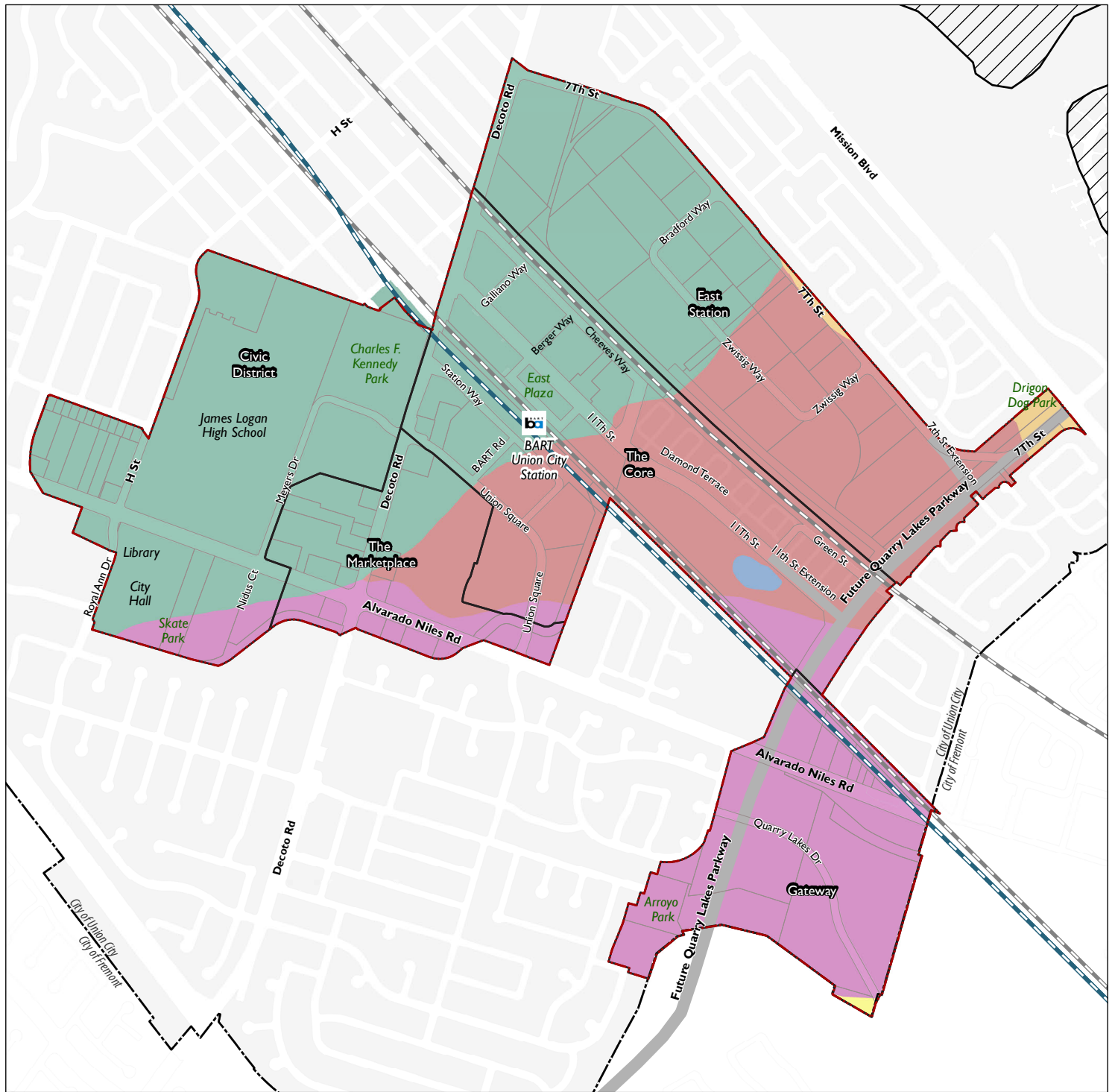
Table 3.6-1: Soil Types in the Planning Area

<i>Soil Unit</i>	<i>Slope Percentage</i>	<i>Approximate Percentage of the Planning Area</i>	<i>Portions of Planning Area</i>
Clear Lake clay, drained	0-2%	27%	Central and eastern portion
Danville silty clay loam	2-9%	1%	Eastern portion
Pits, gravel	n/a	<1%	Southwestern portion
Rincon clay loam	0-2%	51%	Northern portion
Yolo silt loam	0-3%	21%	Central western and southwestern portion
Water	N/a	<1%	Central portion

Sources: Natural Conservation Service 2019.

³ Maplogs.com. 2021. Elevation of Union City, CA, USA. Available: http://elevation.maplogs.com/poi/union_city_ca_usa.125624.html. Accessed: May 3, 2021.

3.6-1 Soils and Erosion-Induced Landslide Hazards in the Vicinity of the Planning Area



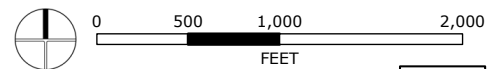
- Union City Station District
- Union City City Limit

Soil Types

- Clear Lake clay, drained, 0 to 2 percent slopes
- Danville silty clay loam, 2 to 9 percent slopes
- Pits, gravel
- Rincon clay loam, 0 to 2 percent slopes
- Water
- Yolo silt loam, 0 to 3 percent slopes, dry

Landslide Hazards

- Few Landslides
- Planning Area Subarea Boundary
- Station District Parcels
- Union City BART Station
- BART
- Railroad



Source: City of Union City, 2019; Alameda County GIS, 2019.

Seismicity

Regional Faults

Generally, earthquakes occur when tectonic plates of the Earth's crust collide or slide past one another along their boundaries or faults, and accumulated stress is released, resulting in seismic slippage. California is particularly susceptible to such plate movements, notably, the largely horizontal or "strike-slip" movement of the Pacific Plate as it impinges on and slides past the west margin of the North American Plate. The performance of man-made structures during a major seismic event varies widely due to a number of factors: location with respect to active fault traces or areas prone to liquefaction or seismic-induced landslides; the type of building construction (i.e., wood frame, unreinforced masonry, non-ductile concrete frame); the proximity and magnitude of the seismic event; and many other factors. In general, evidence from past earthquakes shows that wood frame structures tend to perform well, especially when their foundations are properly designed and anchored. Older, unreinforced masonry structures, on the other hand, do not perform as well, especially if they have not undergone appropriate seismic retrofitting. Applicable building code requirements include seismic requirements that are designed to ensure the satisfactory performance of building materials under seismic conditions.

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 found by the California Geological Survey (CGS) in the Bay Area considered under the Alquist-Priolo Earthquake Fault Zoning Act to be active (i.e., to have evidence of 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 U.S. Geological Survey's (USGS) Working Group on California Earthquake Probabilities estimates that there is a 72 percent chance that a 6.7 or greater magnitude earthquake will occur in the San Francisco Bay Area between 2014 and 2043.⁴ The probability of a 6.7 magnitude or

⁴ Field, E.H., Biasi, G.P., Bird, P., Dawson, T.E., Felzer, K.R. Jackson, D.D., Johnson, K.M., Jordan, T.H., Madden, C. Michael, A.J., Milner, K.R., Page, M.T., Parsons, T., Powers, P.M., Shaw, B.E., Thatcher, W.R., Weldon, R.J. II, and Zeng, Y. 2015. Long-term, time-dependent probabilities for the third uniform California earthquake rupture forecast (UCERF3). Bulletin of the Seismological Society of America. Available: <https://pubs.er.usgs.gov/publication/70147094>. Accessed: May 3, 2021.

greater earthquake occurring along individual faults was estimated to be 6 percent along the San Andreas Fault, 14 percent along the Hayward-Rodgers Creek Fault⁵, and 7 percent along the Calaveras Fault.

Planning Area-Specific Seismicity

A complex interaction of tectonic forces, geologic materials, soils, topography, and groundwater conditions affect the nature of seismic hazards at any site. No mapped active faults cross the Planning Area. However, eleven active faults have been identified within 25 miles of the Planning Area, seven of which are zoned under the Alquist-Priolo Earthquake Fault Zoning Act.^{6, 7}

Figure 3.6-2 shows the seismic hazards within the Planning Area. At its closest point, the Hayward Fault trace is approximately 680 feet northeast of the Planning Area, near Veneto Avenue.⁸ The Hayward Fault Zone, the Alquist-Priolo designated zone which surrounds the fault trace, is approximately 150 feet northeast of the Planning Area at its closest point. However, the Planning Area's proximity to the fault trace and the designated zone is limited to a small portion of the Planning Area (specifically, the Drigon Dog Park) which extends northeast and where no development is proposed. The majority of the Planning Area, including the portion south of 7th Street, is located 1,000 feet or more away from both the fault traces and the zone. The largest earthquake on the Hayward fault occurred in 1868 with an epicenter south of San José, California.⁹ Surface fault rupture occurred along the Hayward fault 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.

⁵ The Hayward and Rodgers Creek faults are connected at the surface beneath San Pablo Bay, and the connection has significant implications for earthquake dynamics; therefore, modeling refers to the connected faults as the "Hayward-Rodgers Creek Fault."

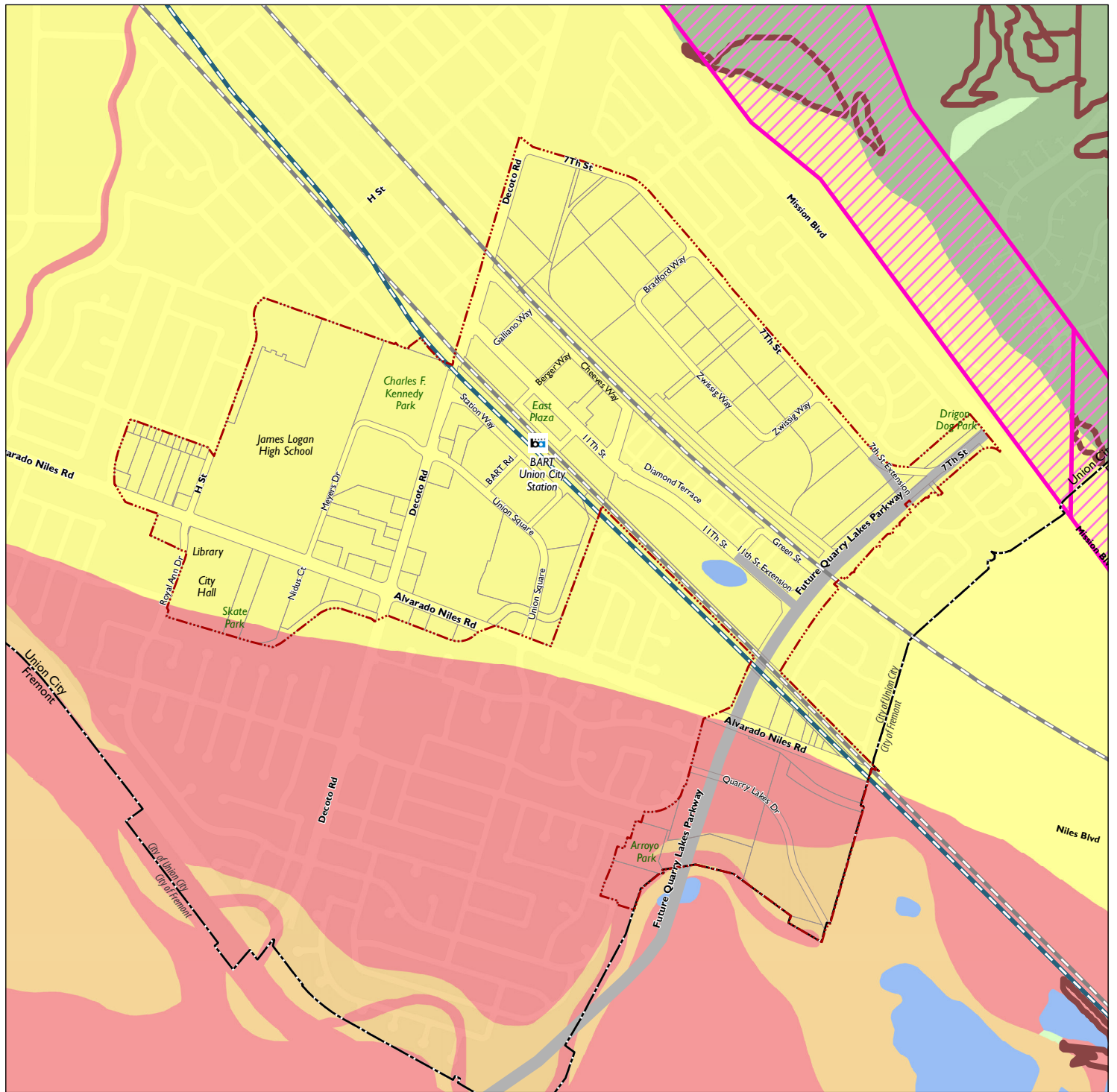
⁶ California Geological Survey (CGS). 2021. Earthquake Zones of Required Investigation (website). Available online at: <https://maps.conservation.ca.gov/cgs/EQZApp/app/>. Accessed: June 2, 2021.

⁷ U.S. Geological Survey (USGS). 2021. Quaternary fault and fold database for the United States. Available: https://www.usgs.gov/natural-hazards/earthquake-hazards/faults?qt-science_support_page_related_con=4#qt-science_support_page_related_con. Accessed: May 4, 2021.

⁸ U.S. Geological Survey (USGS). 2022. Detailed Mapping of the Hayward Fault. Available: <https://earthquake.usgs.gov/earthquakes/events/1868calif/virtualtour/fault.php>. Accessed: January 11, 2022.

⁹ U.S. Geological Survey (USGS). 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: May 4, 2021.

Figure 3.6-2 Seismic Hazards in the Vicinity of Planning Area



Union City Station District

Union City City Limit

Seismically Induced Liquefaction Hazard Levels

Very Low

Low

Medium

High

Very High

Water

Alquist-Priolo Zoned Fault (Hayward Fault)

Seismically Induced Landslide Hazard

Station District Parcels

Union City BART Station

BART

Railroad



0 625 1,250 2,500
FEET

5 ACRE
1.25 ACRE

Source: City of Union City, 2019; Alameda County GIS, 2019.

After the Hayward fault, the next nearest Alquist-Priolo hazard zones are associated with the Calaveras Fault, approximately 6.3 miles to the east of the project site, and the Greenville Fault, approximately 15.3 miles to the northeast.^{10, 11} Two earthquakes occurred on the Greenville Fault in 1980 that exhibited surface fault rupture and creep at the surface. On January 24, 1980 an earthquake of Richter Magnitude 5.5 (M5.5) occurred about 20 miles northeast of the Planning Area. On January 26, 1980 a second quake, M5.8, occurred in the vicinity of Frick Lake. The earthquakes caused injuries and property damage. The damage included shattered windows, merchandise shaken from store shelves, mobile homes knocked off their foundations, swayed and cracked buildings, and snapped gas lines.

Seismic and Geological Hazards

Seismic 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.¹² As shown in Figure 3.6-3, an earthquake matching this scenario is estimated to be capable of generating very strong (MM-VIII) to violent (MM-IX) seismic shaking within the Planning Area.

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 or potentially active fault trace. Because the Hayward fault is within 150 feet of the Planning Area and the Hayward fault has a history of both surface fault rupture in the 1868 earthquake and creep there is a risk of surface fault rupture.¹³ However, the Planning Area is outside the fault zone, so the risk is not great.

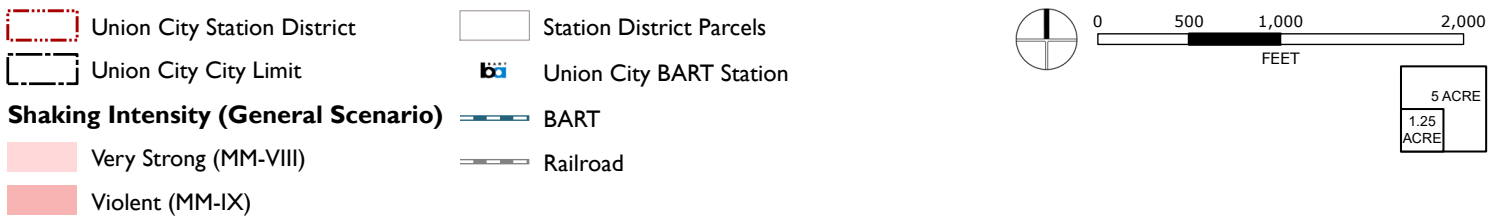
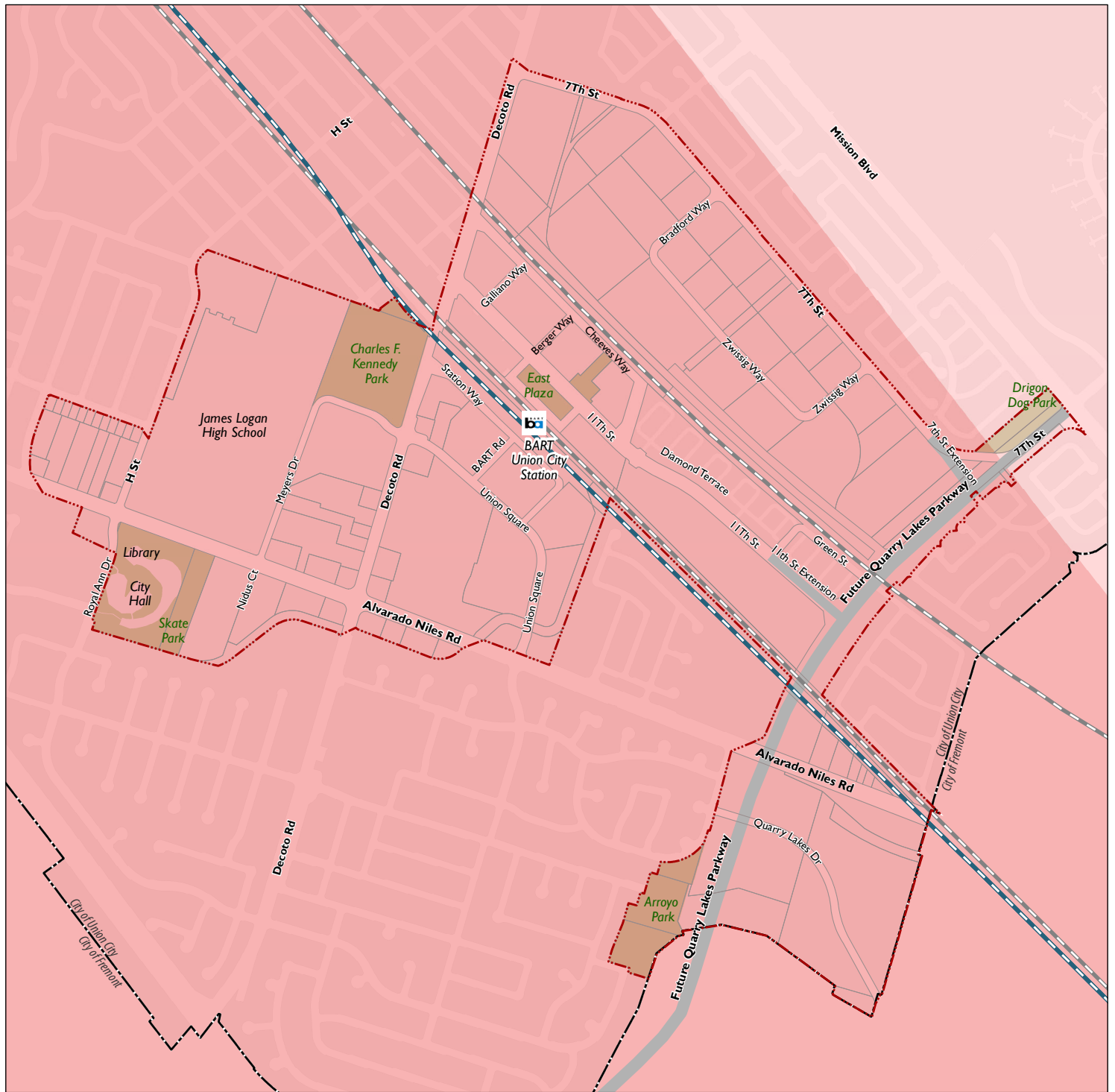
¹⁰ CGS, 2021.

¹¹ USGS, 2021.

¹² Watt, J., Ponce, D., Parsons, T., and Hart, P. 2016. Missing Link Between the Hayward and Rodgers Creek Faults. *Science Advances* (Volume 2, no. 10). Available: <https://advances.sciencemag.org/content/2/10/e1601441.full>

¹³ USGS, 2018.

Figure 3.6-3 Projected Seismic Ground Shaking Intensity in the Vicinity of Planning Area



Source: City of Union City, 2019; Alameda County GIS, 2019.

Liquefaction

Liquefaction is the temporary transformation of loose, saturated, granular sediments from a solid state to a liquefied state as a result of seismic ground shaking. In the process, the soil undergoes a temporary loss of strength, which can cause ground displacement or ground failure. Since saturated soils are a necessary condition for liquefaction, soil layers in areas where the groundwater table is near the surface have higher liquefaction potential than those in which the water table is located at greater depths. Regional liquefaction hazard mapping from Association of Bay Area Governments indicates that the Planning Area includes areas of moderate and very high liquefaction susceptibility. While most of the Planning Area has a moderate susceptibility, the area near Skate Park in the westernmost extent of the Planning Area and the Gateway subarea in the southeasternmost extent have a very high susceptibility, as shown in Figure 3.6-2. Regional mapping is only a general analysis; site specific analysis would identify specific liquefaction risk, which is influenced by the depth to groundwater and soil type.

Lateral Spreading

Lateral spreading refers to a type of landslide that forms on gentle slopes and has rapid fluid-like movement. Factors determining the potential for liquefaction and lateral spreading are soil type, the level and duration of seismic ground motions, the type and consistency of soils, and the depth to groundwater. Locations within the Planning Area that have high liquefaction susceptibility, as shown on Figure 3.6-2, have the highest risk of lateral spreading if they occur adjacent to an open face or slope.

Landslides

The strong ground motions that occur during earthquakes are capable of inducing landslides, generally where unstable slope conditions already exist. A landslide is the downhill movement of masses of earth material under the force of gravity. The primary factors influencing the stability of a slope include the nature of the underlying soil or bedrock, the geometry of the slope (height and steepness), rainfall, and the presence of previous landslide deposits. Two types of landslides are near the Planning Area: seismically induced landslide (see Figure 3.6-2) and precipitation- or water-induced landslide (see Figure 3.6-1). Both types of landslides occur in the steep hills approximately 2 miles east of the Planning Area. However, the Planning Area itself is relatively flat and therefore is not susceptible to landslides.

Soil Erosion

Soil erosion is the process by which soil materials are worn away and transported to another area, either by wind or water. Not accounting for slope and groundcover factors, soils high in clay have low susceptibility to erosion because they are resistant to detachment. Coarse textured soils, such as sandy soils, also have low erosion potential despite their easy detachment, because of low

runoff. Medium textured soils, such as the silt loam soils, are moderately susceptible to erosion, while soils with a high silt content are the most susceptible.¹⁴

The soils in Union City with the highest susceptibility to water erosion exist in the upland landforms of the East Bay hills, in the easternmost portion of the city. The Planning Area is located on the alluvial landforms west of the Hayward fault zone, where the soils are generally very deep, well-to-somewhat-poorly-drained loams, silt loams, and silty clay loams which have low erosion hazard. However, the Yolo silt loam underlying the Gateway subarea and the southern portion of the Civic Center and The Marketplace subareas is susceptible to erosion.

Expansive Soils

Expansive soils have shrink-swell capacity, meaning they may swell when wetted and shrink when dried. Expansive soils can be hazardous to built structures, and may cause cracks in building foundations, distortion of structural elements, and warping of doors and windows. The higher the clay content of a soil, the higher its shrink-swell potential.

The U.S. Department of Agriculture National Resource Conservation Service (NRCS) analyzes the shrink-swell potential of each soil type based on its linear extensibility and clay content and categorizes it as “low,” “moderate,” “high,” or “very high.” Where the shrink-swell classification is moderate to very high, shrinking and swelling can cause damage to buildings, utilities, roads, and other structures and the gradual cracking, settling, and weakening of older buildings could create potential safety concerns and financial loss. As shown in Figure 3.6-1 and described in Table 3.6-1 under *Soil Properties*, the majority of the Planning Area is underlain with the Clear Lake, Danville, and Rincon clay and clay loams which are moderately to highly expansive.¹⁵

Subsidence

Subsidence occurs when a large portion of land is displaced vertically. This typically is due to the withdrawal of groundwater, oil, or natural gas. While subsidence is a significant concern in other parts of the state, particularly the San Joaquin Valley and Central Valley, Alameda County has not yet experienced land sinking due to low ground water levels.¹⁶ The USGS California Water Science Center maps of historical and current recorded subsidence does not identify Union City as an area that has experienced subsidence; however, the alluvial soils west of the Hayward fault zone where the Planning Area is located are considered susceptible to subsidence.^{17, 18} In addition, recent studies suggest that land subsidence will increase the impact of sea level rise in Union City;

¹⁴ Institute of Water Research (IWR). 2002. K Factor. Available: <http://www.iwr.msu.edu/rusle/kfactor.htm> Accessed: May 25, 2021.

¹⁵ United States Department of Agriculture. (2018). Natural Resources Conservation Service Web Soil Survey. Retrieved June 1, 2018, from <https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>

¹⁶ Tetra Tech. 2017. *Union City/Newark Multi-Jurisdiction Hazard Mitigation Plan*. April. Available here: <https://www.newark.org/departments/community-development/specific-plans-master-plans/hazard-mitigation-plan>. Accessed: May 18, 2021.

¹⁷ USGS, 2021.

¹⁸ City of Union City. 2002. 2002 General Plan Policy Document, Health and Safety Element. February. Available: <https://www.unioncity.org/356/General-Plan>. Accessed: May 25, 2021.

however, this is projected mostly in the far western portion of the city and not in the Planning Area.¹⁹ Nevertheless, due to the composition of the soils underlying the Planning Area, there is a moderate potential for subsidence to occur.

Paleontological Resources

Paleontological resources are the fossil remains or traces of past life forms, including vertebrate and invertebrate species as well as plants. Paleontological resources are considered *significant* if they are identifiable vertebrate fossils; uncommon invertebrate, plant, and trace fossils; or other data that provide information important to the scientific record. Paleontological resources are older than the middle Holocene (i.e., older than approximately 5,000 years).

The City is located in the valley of the East Bay of the San Francisco Bay Area, which forms part of the northern portion of the Coast Ranges Geomorphic Province of California.²⁰ The province is bounded by the Pacific Ocean to the west and the Great Valley Geomorphic Province to the east.

Geologic units in the eastern portion of the valley (i.e., not on the Bay margin) are primarily Quaternary alluvial sediments of varying ages overlying Franciscan Formation. The Planning Area is underlain with older Quaternary alluvium of Pleistocene age.^{21, 22} This geologic unit consists of dissected alluvial deposits.²³

According to a records search of the University of California Museum of Paleontology specimen search, 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).²⁴ Therefore, paleontological resources could be discovered in the Planning Area during ground disturbance.

¹⁹ New York Times. 2018. "More of the Bay Area Could Be Underwater in 2100 Than Previously Expected." March 7. Available here: <https://www.nytimes.com/interactive/2018/03/07/climate/san-francisco-sinking-land-flooding-climate-change.html>. Accessed: May 25, 2021.

²⁰ California Geological Survey (CGS). 2002. California Geomorphic Provinces. (Note 36.) Available; <https://www.conservation.ca.gov/cgs/Documents/Publications/CGS-Notes/CGS-Note-36.pdf>. Accessed: May 3, 2021.

²¹ 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: https://www.conservation.ca.gov/cgs/Documents/Publications/Regional-Geologic-Maps/RGM_005A/RGM_005A_SanFrancisco-SanJose_1991_Sheet1of5.pdf. Accessed: June 4, 2021.

²² Wagner, D.L., Bortugno, E.J., and McJunkin, R.D. 1991. Geologic Map Explanation of the San Francisco-San Jose Quadrangle, California, 1991. Available: https://www.conservation.ca.gov/cgs/Documents/Publications/Regional-Geologic-Maps/RGM_005A/RGM_005A_SanFrancisco-SanJose_1991_Sheet2of5.pdf. Accessed: June 4, 2021.

²³ Ibid.

²⁴ University of California Museum of Paleontology. 2020. *Advanced Specimen Search, Alameda County*. Available: https://ucmpdb.berkeley.edu/cgi/ucmp_query2. Accessed: June 4, 2021.

REGULATORY SETTING

Federal Regulations

Earthquake Hazards 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 Plan are summarized below.

U.S. Geological Survey Landslide Hazard Program

The USGS created the Landslide Hazard Program in the mid-1970s; the primary objective of the program is to reduce long-term losses from landslide hazards by improving our understanding of the causes of ground failure and suggesting mitigation strategies. The federal government takes the lead role in funding and conducting this research, whereas the reduction of losses due to geologic hazards is primarily a state and local responsibility.

Disaster Mitigation Act of 2000

The Disaster Mitigation Act of 2000 (DMA2K) (Public Law 106-390) amended the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988 to establish a Pre-Disaster Mitigation (PDM) program and new requirements for the federal post-disaster Hazard Mitigation Grant Program (HMGP). DMA2K encourages and rewards local and state pre-disaster planning. It promotes sustainability and seeks to integrate state and local planning with an overall goal of strengthening statewide hazard mitigation. This enhanced planning approach enables local, tribal, and state governments to identify specific strategies for reducing probable impacts of natural hazards such as floods, fire, and earthquakes. In order to be eligible for hazard mitigation funding after November 1, 2004, local governments are required to develop a Hazard Mitigation Plan (HMP) that incorporates specific program elements of the DMA2K law. The City of Union City participated in the Union City/Newark Multi-Jurisdiction HMP, as described under Local Regulations, below.

State Regulations

California Multi-Hazard Mitigation Plan

The State of California Multi-Hazard Mitigation Plan, also known as the State Hazard Mitigation Plan (SHMP), was approved by FEMA in 2013. The SHMP outlines present and planned activities to address natural hazards. The adoption of the SHMP qualifies the State of California for federal funds in the event of a disaster. The State is required under the Disaster Mitigation Act of 2000, described above, to review and update its SHMP and resubmit for FEMA approval at least once every 5 years to ensure the continued eligibility for federal funding. The SHMP provides goals and strategies which address minimization of risks associated with natural hazards and response to

disaster situations. The SHMP notes that the primary sources of losses in the state of California are fire and flooding.

California Building Standards Code

The California Building Code (CBC) is Part 2 of Title 24 of the California Code of Regulations. The CBC incorporates the International Building Code, a model building code adopted across the United States. The CBC is updated every three years, and the current 2019 version took effect January 1, 2020. With the exception of certain additions, deletions, and amendments, the City adopted the CBC by reference pursuant to Title 15, Section 15.81.010 of the Union City Municipal Code. Through the CBC, the State provides a minimum standard for building design and construction. Of particular relevance, Chapter 16 of the CBC contains specific requirements for structural (building) design, including seismic loads. Chapter 18 of the CBC includes requirements for soil testing, excavation and grading, and foundation design.

The 2019 CBC (based on the 2018 International Building Code) has been amended and adopted as the Building Code of the City of Union City, regulating the erection, installation, alteration, repair, relocation replacement, addition to, use or maintenance of buildings within the City.

California Alquist–Priolo Earthquake Fault Zoning Act

The Alquist–Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures used for human occupancy. The main purpose of the law is to prevent the construction of buildings used for human occupancy on top of active faults. The law only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards, such as ground shaking or landslides.

The law requires the State Geologist to establish regulatory zones (known as Earthquake Fault Zones or Alquist–Priolo Zones) around the surface traces of active faults, and to issue appropriate maps. The maps are then distributed to all affected cities, counties and state agencies for their use in planning and controlling new or renewed construction. Generally, construction within 50 feet of an active fault zone is prohibited as discussed above under *Environmental Setting*, the Hayward Fault, zoned under the Alquist-Priolo Earthquake Fault Zoning Act, is approximately 150 feet northeast of the Planning Area.

Seismic Hazards Mapping Act, California Public Resources Code Sections 2690–2699.6

The Seismic Hazards Mapping Act was developed to protect the public from the effects of strong ground shaking, liquefaction, landslides, or other ground failure, and from other hazards caused by earthquakes. This act requires the State Geologist to delineate various seismic hazard zones and requires cities, counties, and other local permitting agencies to regulate certain development projects within these zones. Before a development permit is granted for a site within a Seismic Hazard Zone, a geotechnical investigation of the site must be conducted, and appropriate mitigation measures incorporated into the project design. Geotechnical investigations conducted within Seismic Hazard Zones must incorporate standards specified by the CGS Special Publication 117, Guidelines for Evaluating and Mitigating Seismic Hazards. There are no Seismic Hazard Zones within the Planning Area.

California Department of Transportation (Caltrans)

Jurisdiction of the California Department of Transportation (Caltrans) includes State and interstate routes within California. Any work within the right-of-way of a federal or State transportation corridor is subject to Caltrans regulations governing allowable actions and modifications to the right-of-way. Caltrans standards incorporate the CBC, and contain numerous rules and regulations to protect the public from seismic hazards such as surface fault rupture and ground shaking. In addition, Caltrans standards require that projects be constructed to minimize potential hazards associated with cut and fill operations, grading, slope instability, and expansive or corrosive soils, as described in the Caltrans Highway Design Manual (HDM).

Caltrans and local project sponsors, as part of the project development and delivery process, are obligated to conduct paleontological studies in response to federal, state, and local laws, regulations, and ordinances. For example, Section 305 of the Federal Aid Highway Act of 1956 (20 USC 78, 78a) gives authority to use federal funds to salvage archaeological and paleontological sites affected by highway projects.

National Pollution Discharge Elimination System Permits

In California, the State Water Resources Control Board (SWRCB) and its Regional Water Quality Control Board (RWQCB) administer the National Pollution Discharge Elimination System (NPDES) program. The NPDES permit system was established as part of the Federal Clean Water Act to regulate both point source discharges and non-point source discharges to surface water of the United States, including the discharge of soils eroded from construction sites.

The NPDES program consists of characterizing receiving water quality, identifying harmful constituents (including siltation), targeting potential sources of pollutants (including excavation and grading operations), and implementing a comprehensive stormwater management program. Construction and industrial activities typically are regulated under statewide general permits that are issued by the SWRCB. Additionally, the SWRCB issues Water Discharge Requirements that also serve as NPDES permits under the authority delegated to the RWQCBs, under the Clean Water Act. See Section 3.9: *Hydrology and Water Quality*, for more information about the NPDES.

California Public Resources Code

Sections 5097–5097.6 of the California Public Resources Code outline the requirements for cultural resource analysis prior to the commencement of any construction project on state lands. The state agency proposing the project may conduct the cultural resource analysis or they may contract with the State Department of Parks and Recreation. In addition, this section stipulates that the unauthorized disturbance or removal of archaeological, historical, or paleontological resources located on public lands is a misdemeanor. It prohibits the knowing destruction of objects of antiquity without a permit (expressed permission) on public lands and provides for criminal sanctions. As used in this section, "public lands" means lands owned by, or under the jurisdiction of, the state, or any city, county, district, authority, or public corporation, or any agency thereof.

Local Regulations

Union City General Plan (UC 2040)

The Union City General Plan (UC 2040) includes the following goals and policies associated with geology, soils, and seismicity:

Safety

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 including those related to flooding, fire, earthquake, and other geologic hazards.

Policy S-1.2: Adequately Mitigate Natural Hazards. The City shall ensure that development mitigates potential risks from natural hazards to acceptable levels.

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, 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 staff 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-3.2: Soils and Geologic Engineering Reports for Lands East of Mission Boulevard. The City shall require soils and geologic engineering reports for sites within the Special Seismic Studies Zone (i.e., Alquist-Priolo Zone) and lands east of Mission Boulevard that address risks related to primary effects of ground rupture along fault traces and secondary seismic effects of slope instability and erosion control consistent with Building Code requirements and the Alquist-Priolo Act (see Figure S-3.1). 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.

Policy S-3.4: Seismic Retrofit of Existing Structures. When feasible, the City shall require the upgrading of the structural integrity of older, unreinforced residential and commercial buildings. The City shall not permit major alterations of unreinforced masonry structures without evaluation by a registered structural engineer of the adequacy of seismic resistance of the building in relation to the proposed use.

Policy S-3.5: Structural Seismic Analysis of City Facilities. The City shall continue to conduct structural seismic analysis of City facilities, particularly those critical for response to an earthquake, such as fire stations, communication centers, and community centers, and, where needed, make structural changes so that the facility will remain functional after an earthquake.

Resource Conservation

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.

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.

Union City/Newark Multi-Jurisdiction Hazard Mitigation Plan

In 2016, the City teamed with the City of Newark to prepare an updated multi-jurisdiction hazard mitigation plan to suit the local needs and capabilities of the two cities and local special districts. The *Union City/Newark Multi-Jurisdiction Hazard Mitigation Plan* (Hazard Mitigation Plan).²⁵ The Hazard Mitigation Plan identified earthquake and landslides as hazards of concern identifies resources, information, and strategies for reducing risks associated with these hazards.

Union City Municipal Code

Title 15: Building and Construction

Title 15 of the City of Union City Municipal Code adopt the 2019 CBC in its entirety excepting certain additions, deletions, and amendments. As discussed above, the CBC regulates seismic design, the excavation of foundations and retaining walls, analysis of slope instability, requirements for drainage and grading, and other aspects of building design and construction that relate to geology, soils, and seismicity.

Chapter 15.85 Grading and Erosion Control

Chapter 15.85 establishes administrative procedures, minimum standards of review, and implementation and enforcement procedures for controlling erosion, sedimentation, and other pollutant runoffs. It also requires applicants to submit an erosion control plan as part of the grading plan set, and a geotechnical report prepared by a registered soils or geotechnical engineer.

Title 17: Subdivision Ordinance of the City

The Subdivision Ordinance requires that a detailed soil and geological investigation report be prepared by civil and geological engineers registered in the State, specializing and recognized in soil mechanics and geological engineering, be submitted to the City by the subdivider at the time of filing of the tentative map for every subdivision.

Impact Analysis

SIGNIFICANCE CRITERIA

For the purposes of this EIR, a significant impact would occur if the Proposed Plan would:

- Criterion 1: Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:**
- i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map or based on other substantial evidence of a known fault (refer to Division of Mines and Geology Special Publication 42),**

²⁵ Tetra Tech, 2017.

- ii. **Strong seismic ground shaking,**
- iii. **Seismically related ground failure, including liquefaction, or**
- iv. **Landslides;**

Criterion 2: Result in substantial soil erosion or the loss of topsoil;

Criterion 3: Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse;

Criterion 4: Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property;

Criterion 5: Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water; or

Criterion 6: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

METHODOLOGY AND ASSUMPTIONS

Geology, Soils, and Seismicity

This evaluation of geologic, soils, and seismic hazard conditions was completed using published geologic, soils, and seismic maps and studies from USGS, CGS, and ABAG. In order to reduce or mitigate potential hazards from earthquakes or other local geologic hazards, implementation of the Proposed Plan would be governed by existing regulations at the federal, state, and local levels, including existing Union City General Plan (UC2040) policies and provisions. These regulations require that a proposed project design reduce potential adverse soils, geological, and seismicity effects to the extent feasible. Compliance with these regulations is required, not optional. These provisions ensure that development will continue to be completed in compliance with local and State regulations.

Paleontological Resources

The evaluation of impacts on paleontological resources was completed using published geologic maps from CGS (Wagner, Bortugno, & McJunkin, 1991) and database query at the University of California Museum of Paleontology (University of California Museum of Paleontology, 2021), following procedures outlined in the Standard Guidelines provided by the Impact Mitigation Guidelines Revisions Committee of the Society of Vertebrate Paleontology (SVP) (Society of Vertebrate Paleontology, 2010).^{26, 27, 28}

²⁶ Wagner, Bortugno, & McJunkin, 1991.

²⁷ University of California Museum of Paleontology, 2021.

The Standard Guidelines 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, the Standard Guidelines prescribe the following steps:²⁹

- 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.

The paleontological sensitivity of the geologic units identified in the study area is classified according to four categories: SVP defines the level of potential as one of four sensitivity categories for sedimentary rocks: High, Undetermined, Low, and No Potential.³⁰

- **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.”

²⁸ Society of Vertebrate Paleontology. 2010. *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources*. Available: https://vertpaleo.org/wp-content/uploads/2021/01/SVP_Impact_Mitigation_Guidelines.pdf. Accessed: June 4, 2021.

²⁹ Ibid.

³⁰ Ibid.

- **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.
- **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.

Geologic units at the project site were identified through California Geological Survey regional maps.³¹ 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.³²

For the implementation phase, the Standard Guidelines states that evaluation must identify impacts on significant paleontological resources and formulate and implement measures to mitigate potential impacts relative to the paleontological sensitivity of the geologic units that would be disturbed.³³

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;
 - 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.

³¹ Wagner, Bortugno, & McJunkin, 1991.

³² University of California Museum of Paleontology, 2021.

³³ Society of Vertebrate Paleontology, 2010.

IMPACTS

Impact 3.6-1 Implementation of the Proposed Plan would not expose residents, visitors and employees, as well as public and private structures, to substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault; strong seismic ground shaking; seismically related ground failure, including liquefaction; or landslides. (*Less than Significant*)

Fault Rupture

For the Proposed Plan, a significant impact due to fault rupture could occur if new structures were constructed within a designated Alquist-Priolo Earthquake Fault Zone, or within an active or potentially active known fault. As discussed above under *Planning Area-Specific Seismicity*, there are no mapped active faults inside the Planning Area. While a small extending portion of the Planning Area is within approximately 150 feet of the Hayward Fault Zone and 680 feet of the Hayward Fault trace, no development is proposed in this area, and the majority of the Planning Area is located at a distance of 1,000 feet or more from the zone and the fault trace. 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 existing General Plan Update, 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.

Compliance with existing requirements, as well as policies and implementing actions included in the Proposed Plan, would reduce potential impacts from surface fault rupture to the maximum extent practicable. Thus, the Proposed Plan would have a *less than significant* with regards to adverse effects from surface fault rupture.

Ground Shaking

A significant impact due to ground shaking could occur if implementation of the Proposed Plan led to construction in an area that would experience ground shaking, potentially causing damage or harm to buildings or people. Generally speaking, fault activity has the potential to result in ground shaking, which can be of varying intensity depending on the magnitude of the event, the epicenter distance, the response of geologic materials, and the design and construction quality of structures. Ground shaking tends to be more severe in softer sediments such as alluvial deposits than in bedrock materials, because in alluvial deposits surface waves can be amplified causing a longer duration of ground shaking. Areas where bedrock is exposed or located at relatively shallow depth tend to experience surface waves from an earthquake as more of a sharp jolt, compared to other areas.

The Planning Area's underlying alluvial deposits and proximity to active local place the area at risk for strong ground shaking. As discussed above under *Seismic Shaking*, the Planning Area could experience very strong (MM-VIII) to violent (MM-IX) seismic shaking if a moment magnitude (MW) 7.4 earthquake were to occur along the Hayward fault.

As discussed above, the Seismic Hazards Mapping Act regulates structures intended for human habitation in order to minimize damage due to seismic ground shaking. Additionally, development occurring under the Proposed Plan would be required to conform to the current seismic design provisions of the most current version of the CBC. The CBC contains the latest seismic safety requirements to resist ground shaking through modern construction techniques, which are periodically updated to reflect the most recent seismic research. Compliance with existing requirements would reduce potential impacts from ground shaking to the maximum extent practicable. Thus, the impact is less than significant.

Liquefaction

A significant impact due to liquefaction could occur if implementation of the Proposed Plan would result in construction in areas of elevated liquefaction risk. As discussed above under *Liquefaction*, and shown in Figure 3.6-2, most of the Planning Area has a moderate susceptibility to liquefaction, with the area near Skate Park in the westernmost extent of the Planning Area and the Gateway subarea in the southeasternmost extent have a very high susceptibility to liquefaction.

Under the Proposed Plan, the area highly susceptible to liquefaction near the Skate Park would remain in civic or private institutional use. Development is proposed in the Gateway subarea, which is also highly susceptible to liquefaction.

Risks due to seismic induced liquefaction are legislated for structures intended for human habitation by the Seismic Hazards Mapping Act. Damage from earthquake-induced ground failure associated with liquefaction could be high in buildings or roadways constructed on improperly engineered fills or saturated alluvial sediments that have not received adequate compaction or treatment in accordance with current building code or Caltrans standards. Impacts from ground failure resulting from liquefaction would be addressed through site-specific geotechnical studies prepared in accordance with CBC requirements as adopted in Chapter 15.85 of the Municipal Code and standard industry practices. Chapter 18 of the CBC regulates the preparation of a preliminary soil report, engineering geologic report, geotechnical report, and supplemental ground-response report. As described in Chapter 18, Seismic Design Category C requires analysis of slope instability, liquefaction, and surface rupture attributable to faulting or lateral spreading. Categories D, E, and F require additional analyses as well as mitigation measures to be considered in structural design. In addition, General Plan Policies S-3.1 and S-3.2 would also require preparation of geotechnical and soil studies, which would identify recommendations regarding any liquefiable soils.

While seismic hazards cannot be eliminated completely, adherence to the state and local regulatory requirements would minimize potential exposure of people and new structures to seismic hazard by requiring incorporation of hazard mitigation measures into project design. Therefore, impacts due to liquefaction are less than significant.

Landslides

Implementation of the Proposed Plan could have a significant impact due to landslides if new development were to be located in areas with high landslide risk. Landslides may occur on slopes of 15 percent or less; however, the probability is greater on steeper slopes that exhibit old landslide features such as steep slopes or banks, slanted vegetation, and transverse ridges. Landslide-susceptible areas are characterized by steep slopes and downslope creep of surface materials. As discussed above under *Landslides*, seismically induced landslides and precipitation-induced landslides occur in the steep hills approximately two miles east of the Planning Area and are therefore unlikely to pose a risk to the Planning Area. The Planning Area itself is relatively flat and not susceptible to landslide; thus, there would be no impact on people and property from seismically induced landslides.

Mitigation Measures

None required.

Impact 3.6-2 Implementation of the Proposed Plan would not result in substantial soil erosion or the loss of topsoil. (*Less than Significant*)

Topsoil refers to the uppermost layer of soil, which have the highest concentration of organic matter, and where most biological soil activity occurs. Implementation of the Proposed Plan could have a significant impact due to soil erosion or loss of topsoil if associated construction and development activities could expose soils to the effects of erosion, which could hinder proper drainage and stormwater management. Erosion control, particularly during grading, is necessary to avoid downstream sedimentation and flooding. Once disturbed, through the removal of vegetation, asphalt, or an entire structure, exposed and stockpiled soils could be affected by wind and water. As discussed above under *Soil Erosion*, the Planning Area is located on the alluvial landforms west of the Hayward fault zone, where the soils have a low erosion hazard; however, the Yolo silt loam underlying the Gateway subarea and the southern portion of the Civic Center and The Marketplace subareas are susceptible to erosion.

Chapter 15.85 of the Union City Municipal Code establishes standards as well as administrative and enforcement procedures for controlling erosion. The Code requires applicants to submit an erosion control plan with their grading plan set, as well as a geotechnical report prepared by a registered soils or geotechnical engineer. The erosion control plan is required to show the locations and details of devices and methods proposed to be implemented to minimize erosion and arrest any sediment on-site that is generated during construction. Compliance with the Union City Municipal Code would minimize impacts related to erosion. In addition, construction that disturbs more than one acre would be subject to compliance with a National Pollutant Discharge Elimination System (NPDES) permit. The NPDES permit requires an erosion and sediment control plan, which includes sufficient engineering analysis to show that the proposed erosion and sediment control measures during the period when preconstruction and construction related grading activities are to occur are capable of controlling surface runoff and erosion and retaining sediment on the project site. Construction activity subject to NPDES permitting requirements also must include a post-construction erosion and sediment control plan. Once

construction is complete and exposed areas are re-vegetated or covered by buildings, asphalt, or concrete, the erosion hazard is substantially eliminated or reduced. General Plan Policies RC-3.3 and RC-3.4 strengthen this by requiring an erosion control plan for all new construction, along with City review and inspection to make sure the erosion control plan is being implemented, and by requiring all new development to comply with the most recent version of the San Francisco Bay Regional Municipal Stormwater Permit.

Compliance with applicable codes, regulations, and General Plan policies would reduce the risk of substantial soil erosion or topsoil loss resulting from implementation of the Proposed Plan to a less than significant level.

Mitigation Measures

None required.

Impact 3.6-3 Implementation of the Proposed Plan would not locate structures on expansive soils or on a geologic unit or soil that is unstable, or that would become unstable as a result of new development under the Proposed Plan, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse, or create substantial risks to life or property. (*Less than Significant*)

The Proposed Plan would have a significant impact if related development were located on an unstable geologic unit or soil, or a geologic unit or soil that would become unstable as a result of such development, and potentially result in on- or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse. Liquefaction and landslide hazards associated with implementation of the Proposed Plan are examined under Impact 3.6-1 and are not revisited in detail.

Development associated with implementation of the Proposed Plan could be located on geologic units or soils that are unstable, including expansive soils. As discussed above under *Soil Properties*, expansive soils underly the majority of the Station East, The Core, and Civic Center subareas, and the northern portion of The Marketplace subarea. If these underlying soils are exposed to varying moisture content over time, the result could be damage to foundations, walls, or other improvements.

Development associated with the implementation of the Proposed Plan could be located on a geologic unit or soils that are susceptible to lateral spreading. As discussed above under *Lateral Spreading*, the factors determining the potential for lateral spreading are liquefiable soils and the proximity to an open face or slope. As shown in Figure 3.6-2, the southern portion of the Civic Center and the Gateway subarea are both underlain by liquefiable soils. The Civic Center subarea is bordered by a stream which provides an open face. The Gateway subarea is located close to the Quarry Lake Regional Recreation Area, where lakes may provide an open face. However, these open faces are located some distance from the subareas and therefore, while both these areas pose some risk of lateral spreading, it is not expected to be a great risk.

Development associated with the implementation of the Proposed Plan could be located on soils that pose a low risk of subsidence. As discussed above under *Subsidence*, the withdrawal of groundwater, oil, or natural gas can cause land to displace vertically. However, the USGS California Water Science Center does not identify the city as an area that has experienced subsidence, and none of the projects which could be constructed under the Proposed Plan would withdraw groundwater, oil, or natural gas in a quantity great enough to result in subsidence. Therefore, subsidence is unlikely to result from construction created under the Proposed Plan.

The City Municipal Code requires that a detailed soil and geological investigation report be submitted to the City at the filing of a tentative map for every subdivision. In addition, General Plan Policies S-3.1 and S-3.2 also require preparation of site-specific geotechnical and soil studies, which would identify any expansive soils or soils susceptible to lateral spreading and provide recommendations. Proposed Plan Policy P-EQ-01 would also support this, by ensuring construction resulting from the Proposed Plan would be in compliance with City standards and procedures for minimizing risks associated with geology and soils, including through integration of required geotechnical investigations into the planning and design of projects constructed as a result of the Proposed Plan. Where potential impacts are identified, these reports must include mitigation, such as over-excavating expansive soils and replacing them with suitable materials. Therefore, potential impacts related to expansive soils are less than significant.

Development in areas with expansive soils would require compliance with State and local building codes. Chapter 18 of the CBC regulates the excavation of foundations and retaining walls. This chapter regulates the preparation of a preliminary soil report, engineering geologic report, geotechnical report, and supplemental ground-response report. Chapter 18 also regulates analysis of expansive soils and the determination of the depth to groundwater table. Appendix Chapter J of the CBC regulates grading activities, including drainage and erosion control and construction on unstable soils, such as expansive soils and areas subject to liquefaction. Chapter 15.85 of the Union City Municipal Code establishes administrative procedures, minimum standards of review, and implementation and enforcement procedures for ensuring stable soil conditions.

Compliance with existing regulations would ensure that any impact is reduced to a less than significant level.

Mitigation Measures

None required.

Impact 3.6-4 Implementation of the Proposed Plan 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)

A significant impact could occur if new development under the Proposed Plan would locate structures in areas without connection to Union City's sanitary sewer system and on soils incapable of adequately supporting the use of septic tanks. Wastewater services are supplied to the Planning Area by Union Sanitary District (USD). The USD owns, operates, and maintains a wastewater collection system that includes approximately 830 miles of underground pipeline and

approximately 115,900 connections that direct wastewater to the Alvarado Basin Treatment Plant located at Benson Road in Union City. Development resulting from the Proposed Plan would occur in areas that already have suitable infrastructure, including wastewater treatment. Therefore, development resulting from the Proposed Plan would not use a septic or alternative water disposal system and would have no impact.

Mitigation Measures

None required.

Impact 3.6-5 Implementation of the Proposed Plan would not 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 in the Planning Area (older Quaternary alluvium [Qo]) is known to have yielded scientifically important fossils. Based on SVP methods described under *Methodology and Assumptions* 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 (General Plan Policy RC-4.8). 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 enabled by the Proposed Plan would involve ground-disturbing activities that would extend into the paleontologically sensitive geologic unit. Therefore, construction enabled by the Proposed Plan would disturb a geologic unit with high paleontological sensitivity and accordingly has potential to destroy unique paleontological resources. In addition, any operations or maintenance activities that would involve ground disturbance also has potential to destroy unique paleontological resources.

However, any project enabled by the Proposed Plan would be subject to requirements of General Plan Policy RC-4.8, Protection of Paleontological Resources. This policy requires avoidance and/or mitigation of potential impact to paleontological resources for any development in Union City that occurs within high sensitivity geologic units, including Pleistocene age alluvium, which includes older Quaternary alluvium. General Plan Policy RC-4.8 requires preparation of a PMMP, which includes measures for a pre-construction survey to identify likelihood of discovering significant fossils, training for construction personnel to enable them to recognize significant fossils, paleontological monitoring by a Qualified Paleontologist, and fossil salvage, curation, and final reporting to capture scientific information that the fossil find would yield. In addition, a project applicant pursuing construction under the Proposed Plan would be required to adhere to **Mitigation Measures GEO-1 and GEO-2**, which requires training to construction staff regarding paleontological resources and provides instructions and guidance to follow in the event of the discovery of an unidentified paleontological resource, respectively. Through conformance with General Plan Policy RC-4.8 and adherence to **Mitigation Measures GEO-1 and GEO-2**, the impact would be less than significant.

Mitigation Measures

MM GEO-1: Worker Awareness Training.

Prior to commencing construction, and ongoing throughout ground-disturbing activities (e.g., excavation, utility installation, the applicants proposing development of projects within the Planning Area and/or their designee shall ensure that all project construction workers are trained on the contents of a paleontological resources alert sheet, as provided by the department. The paleontological resources alert sheet shall be prominently displayed at the construction site during ground-disturbing activities for reference regarding potential paleontological resources. In addition, the project applicant shall inform the contractor and construction personnel of the immediate stop work procedures and other procedures to be followed if bones or other potential fossils are unearthed at the project site. Should new workers that will be involved in ground-disturbing construction activities begin employment after the initial training has occurred, the construction supervisor shall ensure that they receive the worker awareness training as described above.

The applicant shall complete a standard form/affidavit confirming the timing of the worker awareness training to the City. The affidavit shall confirm the project's location, the date of training, the location of the informational handout display, and the number of participants. The affidavit shall be transmitted to the City within five business days of conducting the training.

MM GEO-2: Halt Construction Activity in Case of Finding Paleontological Resources, Evaluate Find, and Excavate Find.

In the event that previously unidentified paleontological resources are uncovered during site preparation, excavation, or other construction activity, applicants proposing development of projects within the Planning Area shall cease all such activity within 25 feet of the discovery or ensure that all such activity within 25 feet of the discovery ceases until the resources have been evaluated by a qualified professional 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. If the qualified paleontologist determines the find is potentially significant, the project applicant shall ensure a qualified paleontologist shall excavate the find in compliance with state law, document the find, and arrange for curation at a depository, keeping project delays to a minimum. If the qualified paleontologist determines the find is not significant, then the project will continue without delay.

Significance after mitigation: Less than significant

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3.7 Hazards and Hazardous Materials

This section assesses potential environmental impacts from future development under the Proposed Plan related to hazards and hazardous materials, including those associated with the transport, use, or disposal of hazardous materials; hazardous materials use in the vicinity of a school; upset conditions involving established hazardous materials sites; airport hazards; and emergency planning. This section provides context regarding hazardous materials, airport hazards, and emergency management in the Planning Area as well as relevant federal, state, and local regulations and programs.

There were two responses to the Notice of Preparation (NOP) regarding topics covered in this section. The City of Fremont recommended an Environmental Site Assessment for the site to the east of the BART station, which was formally occupied by Pacific States Steel Corporation mill. The Alameda County Water District (ACWD) requested that the Draft EIR address potential dewatering impacts, acknowledge that ACWD is allowed to provide technical oversight for the Site Cleanup Program (SCP) sites; and identify Leaking Underground Fuel Tank (LUFT) and SCP sites within the Planning Area. Both responses are addressed in this section and incorporated into the following analysis.

Environmental Setting

PHYSICAL SETTING

Hazardous Materials

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. Hazardous materials are often released as a result of motor vehicle or equipment accidents, underground or aboveground storage tank failure or because of chemical accidents during industrial use. Hazardous substances released into the environment have the potential to leach into soils, surface water, and groundwater. Hazardous materials are commonly used in commercial, agricultural and industrial applications.

Due to the nature of their use, residential and office uses typically do not pose significant hazardous material impacts. Hazardous materials are not typically handled in significant amounts and materials typically used for such activities as cleaning and maintenance typically do not present a risk to the community. Industrial and commercial land uses have a higher likelihood of hazardous materials impacts.

Industrial land use can encompass a wide range of business operations that have the potential to create hazardous materials impacts. Industrial facilities store hazardous materials in underground storage tanks (USTs) and/or aboveground storage tanks, and in designated storage locations. Age and improper maintenance of storage tanks are common causes of soil and groundwater contamination. Improper handling and storage of hazardous material containers can lead to hazardous material emergency incidents.

Commercial locations can include vehicle repair sites, gasoline fueling stations, and dry-cleaning facilities. Like industrial facilities, some commercial sites store hazardous materials in storage tanks and in designated areas within the facility. Hazardous materials spills and leaks in vehicle repair and fueling locations can lead to hydrocarbon-impacted soil and groundwater. Improper storage and use of hazardous materials in dry cleaning facilities can lead to volatile organic solvent-contaminated soil and groundwater.

Hazardous Materials Transport

Within the Planning Area, hazardous materials may be transported by vehicle along roadways or through transmission lines such as pipelines. Major transportation routes include Highway 238 (Mission Boulevard) and surface streets such as Decoto and Alvarado-Niles Roads. According to the US Department of Transportation's (US DOT) National Pipeline Mapping System, natural gas pipelines bisect portions of the Planning Area along Decoto Road and Alvarado-Niles Road.¹

Additionally, hazardous materials may be transported via rail in the Planning Area, resulting in potential for hazardous materials release from accidents involving train derailments. Hazardous materials may be transported by rail along the Union Pacific Railroad (UPRR) tracks which are the primary freight lines within the Planning Area. The Niles Subdivision UPRR tracks cross Decoto Road just east of Cheeves Way. The Oakland Subdivision UPRR tracks cross Decoto Road west of 11th Street and just east of the elevated BART tracks.

¹ US Department of Transportation. National Pipeline Mapping System. Available: <https://pvnpm.phmsa.dot.gov/PublicViewer/>

Hazardous Materials Sites

Sites where hazardous chemical compounds have been released into the environment can pose threats to human and ecologic systems' health. Both historic and current activities may result in the release, leak, or disposal of toxic substances on or below the ground surface, where they can then contaminate soil and ground water. Disturbance of the ground through grading or excavation can result in exposure of these chemicals to the public. Improper handling of contaminated sites may result in further exposure via airborne dust, surface water runoff, or vapors.

The Union City Environmental Programs Division, a part of the Economic and Community Development Department, is the Certified Unified Program Agency (CUPA)² that implements hazardous materials and hazardous wastes regulations in the city through six programs: Hazardous Materials Business Plans (HMBP), Hazardous Waste Generator (HW), On-site Hazardous Waste Treatment (Tiered Permitting), Underground Storage Tank (UST), California Accidental Release Prevention (CalARP), and Aboveground Petroleum Storage.

State agencies document and regulate potentially hazardous sites. The provisions in Government Code Section 659.62.5, enacted in 1985, are commonly referred to as the Cortese List.³ A site's presence on the list has bearing on the local permitting process as well as on compliance with the California Environmental Quality Act. One site listed in Table 3.7-1: Contaminated Sites within the Planning Area is considered a Cortese List site.

Those requesting a copy of the Cortese list are now referred directly to the appropriate information resources contained on the Internet web sites of the boards or departments that are referenced in the statute, including the State Water Resources Control Board (SWRCB), Department of Toxic Substances Control (DTSC), and State Department of Health Services (DHS).

The San Francisco Bay Regional Water Quality Control Board regulates cleanup activities at Leaking Underground Storage Tank (LUST) sites. In Union City, the San Francisco Bay Regional Water Quality Control Board has delegated authority for most LUST cleanup oversight to the Alameda County Water District (ACWD). LUST sites are those undergoing cleanup due to an unauthorized release from an underground storage tank (UST) system. A UST System is a tank and any underground piping connected to the tank that has at least 10 percent of its combined volume underground. UST regulations apply to underground tanks and piping storing any type of hazardous substance, with some exemptions.

² City of Union City. CUPA. Available: <https://www.unioncity.org/240/Environmental-Programs-CUPA>

³ The following resources include facilities meeting "Cortese List" requirements:

- List of Hazardous Waste and Substances sites from DTSC's EnviroStor database
- List of Leaking Underground Storage Tank Sites from SWRCB's GeoTracker database
- List of solid waste disposal sites identified by SWRCB with waste constituents above hazardous waste levels.
- List of "active" Cease and Desist Orders and Cleanup and Abatement Orders from SWRCB.
- List of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code, identified by DTSC.

As part of Government Code Section 65962.5 requirements, the SWRCB also tracks the following types of sites:

- Solid waste disposal facilities from which there is a migration of hazardous waste and for which a California regional water quality control board has notified the DTSC.
- Cease and desist orders issued after January 1, 1986 and all cleanup or abatement orders issued after January 1, 1986 that concern the discharge of wastes that are hazardous materials.

The DTSC regulates hazardous waste generation and treatment, oversees cleanup of existing contamination, and promotes ways to reduce the amount hazardous waste generated. DTSC regulates hazardous waste in California primarily under the authority of the federal Resource Conservation and Recovery Act of 1976 the California Health and Safety Code and the California Code of Regulations. Hazardous waste requirements cover handling, storage, transportation, disposal, treatment, source reduction, cleanup, and emergency planning.

The Planning Area includes several contaminated sites (under oversight of the SFBRCB, ACWD and the DTSC), as shown in Figure 3.7-1 and detailed in Table 3.7-1. Cortese List sites are also shown in Figure 3.7-1 and listed in Table 3.7-1. Some of the sites listed have received closure by the applicable oversight agency and may not represent substantial hazardous materials exposure risks, while some may represent threats to groundwater and/or constraints to development. Sites listed in Table 3.7-1 are listed with their site name and address, along with the database it was identified in and a summary of the site status. There are no Superfund sites within the Planning Area. The information found in Table 3.7-1 is dynamic and with time a site's status can change, new sites can appear, etc. The listed sites were sites found within the Planning Area at the time this document was prepared.

Figure 3.7-1: Contaminated Sites in the Vicinity of Planning Area



- Union City Station District
- Union City City Limit

Waterways

— Stream/River/Canal/Ditch/Creek

Lake/Pond

Parks

Union City BART Station

BART

Railroad

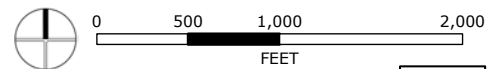
Contaminated Sites

● LUST Cleanup Site

■ Cleanup Program Site

▲ EnviroStor State Response Site

◆ Other Hazardous Materials Site



Source: Geotracker, State Water Resources Control Board, 2020; Envirostor, Department of Toxic Substances Control, 2020; ICF, 2020; City of Union City, 2020; Alameda County GIS, 2020.

Table 3.7-1. Contaminated Sites within the Planning Area

<i>Site Number in Figure 3.7-1</i>	<i>Site Name</i>	<i>Address</i>	<i>Type</i>	<i>Description and Site Status</i>
1	McKesson Chemical Facility	33950 7th Street	Cleanup Program Site	Open – Remediation as of 8/28/19. Potential media affected is other groundwater (uses other than drinking water). Contaminants include volatile organic compounds (VOCs). Listed with land use restrictions.
2	Liquid Air Corporation	700 Decoto Road	Cleanup Program Site	Open – Remediation as of 06/1/91. Potential contaminant of concern is gasoline. Potential media affected is other groundwater (uses other than drinking water) and soil.
3	Cascade Steel Company	34200 7th Street	LUST Cleanup Site	Completed - Case Closed. Contaminant of concern listed as gasoline. Impacted media included soil.
4	PG&E Decoto Pipe Yard Facility Closure	1100 Decoto Road	Cleanup Program Site	Completed - Case Closed. Listed with land use restrictions.
5	Ambo Engineering Contractors	34151 Zwissig Way	LUST Cleanup Site	Completed - Case Closed. Contaminant of concern included gasoline. Media affected was listed as other groundwater (uses other than drinking water).
6	PG&E Transmission Right of Way	1 Zwissig Way	Cleanup Program Site	Completed - Case Closed. Contaminants of concern listed as arsenic, lead, nickel, and other metal. Impacted media not disclosed.
7	PG&E Decoto Pipe Yard	1100 Decoto Road	LUST Cleanup Site	Completed – Case Closed. Contaminant of concern is gasoline. Potential media affected is other groundwater (uses other than drinking water).
8	PG&E Pipe Yard	1100 Decoto Road	Cleanup Program Site	Listed as Open – Inactive as of 07/15/16. Contaminants include PCBs in soil.
9	Pengo Corporation	710 Zwissig Way	Cleanup Program Site	Completed - Case Closed. Impacted media and contaminant of concern not disclosed.
10	Unocal 5174	34000 Alvarado Niles Road	LUST Cleanup Site	Completed - Case Closed. Contaminant of concern listed as gasoline. Impacted media not disclosed.

Table 3.7-1. Contaminated Sites within the Planning Area

Site Number in Figure 3.7- 1	Site Name	Address	Type	Description and Site Status
11	El Mercado Dry Cleaning	34300 Alvarado Niles Road	Cleanup Program Site	Completed – Case Closed. Contaminant of concern included tetrachloroethylene (PCE).
12	Avalonbay at Union Square	14-44 Union Square	Cleanup Program Site	Completed - Case Closed. Contaminant of concern listed as petroleum (other). Media affected listed as soil.
13	Chevron No. 1166	1990 Decoto Road	LUST Cleanup Site	Completed - Case Closed. Contaminants of concern included waste oil/motor/hydraulic/lubricating. Potential media affected was listed as other groundwater (uses other than drinking water).
14	Shell Station	2001 Decoto Road	LUST Cleanup Site	Completed - Case Closed. Contaminant of concern included gasoline.
15	Pacific States Steel - Phase III	35124 Alvarado Niles Road	EnviroStor	State Response. Certified / Operation & Maintenance as of 9/22/06. Contaminants include metals, petroleum, and polychlorinated biphenyls (PCBs).
16	Union City Property	Bradford Way & Zwissig Way, a portion of 33955 7th Street and Railroad Parcel	Other Hazardous Materials Site	Active as of 1/12/16. Voluntary Cleanup site. Contaminants of concern include 1,1,1,2-tetrachloroethane. Potential media affected is soil and soil vapor.
17	PG&E - Decoto Pipeyard	1100 Decoto Road	Other Hazardous Materials Site	Certified. Voluntary Cleanup site certified by DTSC as having been remediated satisfactorily. Contaminants of concern included metals, dieldrin, PCBs and diesel. Potential media affected is soil.
18	Phibro-Tech, Inc.	34400 Zwissig Way	Other Hazardous Materials Site	No Action Required. Corrective Action site. No action required as of April 2009. Contaminants of concern include copper and nickel. Affected media not disclosed.
19	Shell Oil	34400 Zwissig Way	LUST Cleanup Site	Completed – Case Closed. Contaminant of concern and media affected not disclosed.

Table 3.7-1. Contaminated Sites within the Planning Area

Site Number in Figure 3.7-1	Site Name	Address	Type	Description and Site Status
20	Union Square Center	14-44 Union Square	Other Hazardous Materials Site	No Further Action. Voluntary Cleanup site granted NFA by DTSC in 2006. Contaminants of concern and media affected not disclosed.
21	General Electric Company	34863 Mission Blvd	Other Hazardous Materials Site	Site is undergoing corrective action and was transferred from DTSC's Hazardous Waste Management Program to DTSC's Site Mitigation and Brownfield Reuse Program (SMBRP) for cleanup and/or closure. Contaminants of concern include PCBs. Impacted media includes soil. The address is located outside the Planning Area, however, the listing is noted as being part of 35124 Alvarado Niles Road.

Aerially Deposited Lead

Aerially deposited lead is a common hazardous materials issue in urban areas. Soils adjacent to major roadways often contain elevated concentrations of lead. The lead deposition is the result of airborne particulates and surface water runoff associated with automobile tailpipe emissions prior to the time lead was phased out of vehicle fuels and from lead wheel weights. The DTSC *Statewide Agreement For Caltrans for Reuse of Aerially Deposited Lead-Contaminated Soils* suggest that lead is generally found within 30 feet of the edge of the pavement and within the top six inches of the soil. In some cases, the lead is as deep as two to three feet below the surface.⁴

Properties located adjacent to major roadways such as Alvarado-Niles Road and Decoto Road may contain elevated concentrations of lead in exposed surface soils, which could pose a health hazard to construction workers and users of the properties. Exposure of construction workers or future site occupants to lead in soil could result in adverse health effects, depending on the duration and extent of exposure.

Hazardous Materials in Building Materials

Hazardous materials, such as lead and asbestos, may be found in building materials and disturbed during demolition and renovation activities associated with development or redevelopment. Lead compounds were commonly used in interior and exterior paints until they were banned in 1978.

⁴ Department of Toxic Substances Control (DTSC). 2017. *Statewide Agreement for Caltrans for Reuse of Aerially Deposited Lead-Contaminated Soils*. Available: https://dtsc.ca.gov/wp-content/uploads/sites/31/2017/11/CaltransStatewide_FS_ADLAgreement_0316.pdf

Prior to the 1980s, building materials often contained asbestos fibers, which were used to provide strength and fire resistance until they were banned. In addition, other common items present in buildings, such as electrical transformers, fluorescent lighting, electrical switches, heating/cooling equipment, caulking, and thermostats can contain hazardous materials, which may pose a health risk if not handled and disposed of properly.

Demolition of buildings has the potential to release lead particles, asbestos fibers, PCBs, and/or other hazardous materials to the ground or air where they may be inhaled or ingested by construction workers and the general public. Federal and State regulations govern the demolition of structures where lead or material containing lead is present. During demolition, lead-based paint that is securely adhering to wood or metal may be disposed of as demolition debris, which is a non-hazardous waste. Loose and peeling paint must be disposed of as a California and/or federal hazardous waste if the concentration of lead exceeds applicable waste thresholds. State and federal construction worker health and safety regulations require air monitoring and other protective measures during demolition activities where lead-based paint is present.

Federal, State, and local requirements also govern the removal of asbestos or suspected asbestos-containing materials (ACMs), including the demolition of structures where asbestos is present. The Bay Area Air Quality Management District (BAAQMD) requires that demolition projects obtain BAAQMD approval prior to issuance of local building permits for renovation and demolition projects. The Union City Building Division enforces this requirement, which is intended to minimize the release of asbestos during demolition activities. Workers conducting asbestos abatement must be trained in accordance with State and federal Occupational Safety and Health Administration (OSHA) regulations.

Union City Municipal Code Section 13.42, Management of PCBs During Building Demolition Projects, outlines the City's process for minimizing PCB exposure and disposal during construction. Applicable projects must conduct a PCB screening assessment prior to issuance of a building demolition permit.

Fluorescent lighting tubes and ballasts, computer displays, and several other common items containing hazardous materials are regulated as "universal wastes" by the State of California. Universal waste regulations allow common, low-hazard wastes to be managed under less stringent requirements than other hazardous wastes. Management of some other special hazardous wastes is governed under the DTSC hazardous waste rules.

Schools

The James Logan High School is located within the Planning Area. It is located at 1800 H Street within the Civic Center subarea.

Airport Hazards

Risks associated with airport operations include those to people and property located in the vicinity of the airport in the event of an accident, and those to the safety of persons aboard an aircraft. Union City does not have an airport and no public-use airports or private airstrips are present within the Planning Area. The nearest airport is the Hayward Executive Airport, located

approximately 6.3 miles northwest of the Planning Area. Other airports in the vicinity include the San Carlos Airport located 13.2 miles to the west-southwest and the Palo Alto Airport located approximately 9.5 miles to the southwest. The Planning Area does not fall within any of the Airport Influence Areas of these airports.

Emergency Management and Response

Union City contracts the Alameda County Fire Department (ACFD) to provide fire and emergency response services. In addition, the Alameda County Sheriff's Department provides Union 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. In addition, Union City has prepared a Comprehensive Emergency Management Plan for use by all employees in the event of a major disaster or other emergency event. The plan provides for a strategic response by all employees and assigns specific responsibilities in the event that the plan is activated.

REGULATORY SETTING

Hazardous materials and hazardous wastes are extensively regulated by federal, State, regional and local regulations, with the major objective of protecting public health and the environment. In general, these regulations provide definitions of hazardous substances; identify responsible parties; establish reporting requirements; set guidelines for handling, storage, transport, remediation, and disposal of hazardous materials and wastes; and require health and safety provisions for both workers and the public, such as emergency response and worker training programs. Sites which are subject to these regulations are identified on periodically updated published lists at the federal, state, and local levels; the regulated sites include underground storage tank (UST) locations. The major regulations relevant to the Proposed Plan are summarized in the following subsections.

Federal Regulations

Federal Toxic Substances Control Act/Resource Conservation and Recovery Act/Hazardous and Solid Waste Act

The federal Toxic Substances Control Act (1976) and the RCRA established a U.S. EPA-administered program to regulate 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

CERCLA, commonly known as "Superfund," was enacted by Congress on December 11, 1980. This law (42 United States Code 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 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. This plan (Title 40, 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 National Contingency Plan also established the National Priorities List. CERCLA was amended by the Superfund Amendments and Reauthorization Act on October 17, 1986.

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 29 CFR 1910.

Department of Transportation Hazardous Materials Regulations (49 CFR 100–185)

U.S. Department of Transportation Hazardous Materials regulations cover all aspects of hazardous materials packaging, handling, and transport. Some of the topics covered 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).

Emergency Planning and Community Right-To-Know Act

The Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986 was included under SARA law and is commonly referred to as SARA Title III. EPCRA was passed in response to concerns regarding the environmental and safety hazards proposed by the storage and handling of toxic chemicals. EPCRA establishes requirements for federal, state, and local governments, tribes, and industry regarding emergency planning and Community Right-to-Know reporting on hazardous and toxic chemicals. SARA Title III requires states and local emergency planning groups to develop community emergency response plans for protection from a list of Extremely Hazardous Substances (40 CFR Appendix B). The Community Right-to-Know provisions help increase the public's knowledge of and access to information on chemicals at individual facilities, their uses, and their release into the environment. In Union City, the Environmental Programs Division/CUPA collects EPCRA Tier II data.

Hazardous Materials Transportation Act

The Hazardous Materials Transportation Act (HMTA) of 1975 was created to provide adequate protection from the risks to life and property related to the transportation of hazardous materials in commerce by improving regulatory enforcement authority of the Secretary of Transportation.

State Regulations

California Environmental Protection Agency (CalEPA)

The California Environmental Protection Agency (CalEPA) was created in 1991. It unified California's environmental authority in a single cabinet-level agency and brought the California Air Resources Board, SWRCB, RWQCB, CalRecycle, DTSC, Office of Environmental Health Hazard Assessment, and Department of Pesticide Regulation under one agency. These agencies were placed under the Cal/EPA "umbrella" for the protection of human health and the environment to 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. CalEPA also manages the Unified Program and has certified the Union City Environmental Programs Division as the Certified Unified Program Agency (CUPA) to implement state hazardous materials requirements within the jurisdiction.

Accidental Release Prevention Law/California Accidental Release Prevention Program (CalARP)

SB 1889 established the merging of federal and State of California programs governing the accidental airborne release of chemicals listed under Section 112 of the Clean Air Act. Effective January 1, 1997, CalARP replaced the previous California Risk Management and Prevention Program (RMPP) and incorporated the mandatory federal requirements. CalARP addresses facilities containing specified hazardous materials that, if involved in an accidental release, could result in adverse off-site consequences. CalARP defines regulated substances as chemicals that pose a threat to public health and safety or the environment because they are highly toxic, flammable, or explosive. The Union City Environmental Programs Division/CUPA administers the CalARP program.

Hazardous Materials Worker Safety Requirements

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 (Cal OSHA) and the federal OSHA are the agencies responsible for ensuring worker safety in the workplace. Cal OSHA assumes primary responsibility for developing and enforcing standards for safe workplaces and work practices. In California, Cal OSHA assumes primary responsibility for developing and enforcing workplace safety regulations; Cal OSHA standards are generally more stringent than federal regulations.

California Labor Code (Division 5, Parts 1, 6, 7, and 7.5)

The California Labor Code is a collection of regulations that include regulation of the workplace to ensure appropriate training on the use and handling of hazardous materials and operation of equipment and machines that use hazardous materials. Division 5, Part 1, Chapter 2.5, ensures that employees who are in charge of handling hazardous materials are appropriately trained and informed with respect to 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.

Department of Toxic Substances Control and Cortese List

DTSC, a department of Cal/EPA, is the primary 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 that affect hazardous waste are specific to handling, storage, transport, disposal, treatment, reduction, cleanup, and emergency planning.

California Government Code 65962.5 (commonly referred to as the Cortese List) includes DTSC-listed hazardous waste facilities and sites, Department of Health Services lists of contaminated drinking water wells, sites listed by 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.

State of California Emergency Plan, 2017

California has developed an emergency response plan to coordinate emergency services provided by federal, State, and local governments and private agencies. Response to hazardous material incidents is one part of this plan. The plan is managed by the California Emergency Management Agency, which coordinates the responses of other agencies, including CalEPA, the California Highway Patrol, California Department of Fish and Wildlife (CDFW), and RWQCB.

Office of Environmental Health Hazard Assessment

The State of California Office of Environmental Health Hazard Assessment (OEHHA) is the lead state agency for the assessment of health risks posed by environmental contaminants. The OEHHA implements provisions of the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65). Proposition 65 requires the governor to publish, at least annually, a list of chemicals known to the state to cause cancer or reproductive toxicity. The proposition protects California citizens and the state's drinking water sources from chemicals known to cause cancer, birth defects, or other reproductive harm and informs the public about potential exposures to such chemicals.

California Department of Transportation

The California Department of Transportation (Caltrans) manages more than 50,000 miles of California's highway and freeway lanes, provides inter-city rail services, permits more than 400 public-use airports and special-use hospital heliports, and works with local agencies. Caltrans is also the first responder for hazardous material spills and releases that occur on highway and freeway lanes and inter-city rail services.

State Water Resources Control Board

The Porter-Cologne Water Quality Control Act of 1969 established the SWRCB and divided the state into nine regional basins, each with a RWQCB. The SWRCB is the primary state agency responsible for protecting the quality of the state's surface and groundwater supplies, while the

regional boards are responsible for developing and enforcing water quality objectives and implementation plans. The Planning Area is within the jurisdiction of the San Francisco Bay Regional Water Quality Control Board.

The act authorizes the SWRCB to enact state policies regarding water quality in accordance with the U.S. EPA Clean Water Act (CWA) section 303. The SWRCB regulates the handling, storage, and disposal of hazardous substances in construction projects. Permits and/or other action by the SWRCB may be required if contamination of water or soils occurs during the construction associated with the Proposed Plan. In addition, the act authorizes the SWRCB to issue Waste Discharge Requirements (WDRs) for projects that would discharge to State waters.

California Public Resources Code Section 2115.4

Public Resources Code Section 21151.4 regulates hazardous materials near schools. Public Resources Code Section 21151.4 prohibits the certification of a Draft Environmental Impact Report (EIR) for a project involving the construction or alteration of a facility that might reasonably be anticipated to emit hazardous air emissions or handle extremely hazardous air emissions in a quantity greater than a certain threshold, within one-quarter mile of a school.

Local Regulations

CalEPA's Unified Program (CUPA)

In 1993, Senate Bill 1082 gave CalEPA the authority and responsibility to establish a unified hazardous waste and hazardous materials management and regulatory program, commonly referred to as the Unified Program. The purpose of this program is to consolidate and coordinate six different hazardous materials and hazardous waste programs, and to ensure that they are consistently implemented throughout the state. CalEPA oversees the Unified Program with support from the DTSC, SWRCB, the CalOES, and the Office of the State Fire Marshal.

State law requires counties, and allows local agencies, to implement the Unified Program. The agency in charge of implementing the program is called the Certified Unified Program Agency or CUPA. The City's Environmental Programs Division of the Economic and Community Development Department is the designated CUPA for Union City. As the Certified Unified Program Agency, the Environmental Programs Division administers the following Unified Programs:

- Hazardous Materials Release Response Plans and Inventory (Business Plan) Program
- California Accidental Release Prevention Program
- Underground Storage Tank Program
- Hazardous Waste Generator Program
- Hazardous Waste On-Site Treatment Programs
- Aboveground Petroleum Storage Act Program

Alameda County Fire Department Emergency Operations Plan (EOP)

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 property and the environment. ACFD would provide the fire and emergency response within the Planning Area and implement the EOP.

Union City Comprehensive Emergency Management Plan (CEMP)

Union City has prepared a CEMP for use by all employees in the event of a major disaster or other emergency event. The plan provides for a strategic response by all employees and assigns specific responsibilities in the event that the plan is activated. The Chief of Police or designee shall review the CEMP at least once every two years to ensure that it conforms to any revisions made by the National Incident Management System (NIMS) and the Standardized Emergency Management System (SEMS) and should appropriately address any needed revisions.

Union City/Newark Multi-Jurisdiction Hazard Mitigation Plan (HMP)

The Cities of Union City and Newark have developed and maintained an (HMP) to reduce risks from natural disasters that complies with federal requirements for hazard mitigation planning. During this planning project, local leaders, special districts, and the community have worked in tandem to identify risks, assess capabilities, and formulate a strategy to reduce disaster vulnerability. The HMP details the use of these policies, programs, projects, and other activities to alleviate the death, injury, and property damage that can result from a disaster.

Alameda County Water District's Groundwater Protection Program

The Alameda County Water District's Groundwater Protection Program is designed to protect and preserve the community's drinking water resources. As part of the Groundwater Protection Program, ACWD has entered into Cooperative Agreements with both the San Francisco Bay Regional Water Quality Control Board and the City of Union City. These agreements allow 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.

Union City General Plan (UC 2040)

The Union City General Plan (UC 2040) 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.

Impact Analysis

SIGNIFICANCE CRITERIA

For the purposes of this EIR, a significant impact would occur if the Proposed Plan would:

- Criterion 1:** Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- Criterion 2:** 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;
- Criterion 3:** Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- Criterion 4:** Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment;
- Criterion 5:** Be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public uses airport, and would result in a safety hazard or excessive noise for people residing or working in the project area;
- Criterion 6:** Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or
- Criterion 7:** Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

METHODOLOGY AND ASSUMPTIONS

This analysis considers the range and nature of foreseeable hazardous materials use, storage, and disposal resulting from implementation of the Proposed Plan, and identifies the primary ways that these hazardous materials could expose individuals or the environment to health and safety risks. The analysis included a qualitative evaluation of impacts associated with the potential presence of hazardous materials or hazards in the Planning Area, and an evaluation of the extent to which land use changes suggested within the Proposed Plan could enable the development of industrial uses that commonly employ or generate hazardous materials or waste in their production processes, as well as development in or around Very High Fire Hazard Severity Zones. This analysis is based on a review of materials ranging from the Envirostor and Geotracker databases, hazard mapping, and relevant plans and regulations at the federal, State, and local levels.

RELEVANT PROPOSED GOALS AND POLICIES

The following policy of the Proposed Plan is generally relevant to potential hazardous and hazardous material impacts.

P-PF-19: Water Reduction and Recycling. Require all new development to participate in all recycling and hazardous waste reduction and solid waste diversion programs in effect at the time of issuance of building permits.

IMPACTS

Impact 3.7-1 Implementation of the Proposed Plan 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 activities arising from implementation of the Proposed Plan would involve routine transport, use, and disposal of hazardous materials such as solvents, paints, oils and greases, and materials that are typically used in construction projects. Such transport, use, and disposal would be compliant with applicable regulations such as those described under the *Regulatory Setting*, which include regulations from RCRA, Cal OSHA, the U.S. Department of Transportation, and others. The regulations mentioned cover hazardous materials–related topics such as proper personal protective equipment, transport, handling, recordkeeping, and disposal, among others.

Although solvents, paints, oils, greases, fuels, and other materials would be transported, used, and disposed of during construction, these materials are typically used in construction projects and would not represent any undue hazard. Releases involving common construction hazardous materials would be small and localized and spills that may occur would be contained and cleaned according to the Safety Data Sheet⁵ (SDS) in the appropriate manner.⁶ A hazardous material SDS would include accidental release clean up measures such as appropriate techniques for neutralization, decontamination, cleaning or vacuuming, and adsorbent materials, etc. Contractors and staff would be covered by Cal OSHA and CUPA training standards that require documented employee training and equipment for emergency response.

Moreover, any project requiring greater than 1 acre of soil disturbance would be required to obtain National Pollutant Discharge Elimination System (NPDES) coverage under the NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit), Order No. 2009-0009-DWQ (in addition to the regulations previously mentioned). The Construction General Permit would require the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP), which includes Best

⁵ SDS include information such as the properties of a chemical; the physical, health, and environmental health hazards; protective measures; and safety precautions for handling, storing, and transporting the chemical. In addition, OSHA requires that SDS preparers provide specific minimum information as detailed in Appendix D of 29 CFR 1910.1200.

⁶ Occupational Safety and Health Administration (OSHA). 2012. Hazard Communication Standard: Safety Data Sheets. Last revised: February 2012. Available: <https://www.osha.gov/Publications/OSHA3514.html>. Accessed: March 2020.

Management Practices (BMPs) to regulate and prevent contamination of stormwater runoff. Construction BMPs can include the following:

- Maintenance activities, maintenance schedules, and long-term inspection procedures to minimize release of fluids, oils and fuels from construction equipment.
- Controls for reducing or eliminating the discharge of pollutants
- Procedures for the proper disposal of waste⁷

Current as well as future land uses under the Proposed Plan involve or could involve the transport, use, storage, generation, and disposal of hazardous materials, including lead and asbestos from building materials and chemicals from commercial and industrial uses. As described in the *Environmental Setting*, there are several sites within the Planning Area that currently use hazardous materials and generate hazardous wastes, which require regulatory oversight to protect human health and the environment. This includes current and former hazardous materials use sites and would also include future sites (as part of the Proposed Plan) which handle hazardous materials in reportable (to the local CUPA) quantities. These uses are regulated by the Union City Environmental Programs Division of the Economic & Community Development Department under State and Federal laws and regulation. The City also works closely with DTSC, which regulates the generation, treatment, and disposal of hazardous waste, and the SWRCB and regional water boards, which enforces the Clean Water Act and Porter-Cologne Water Quality Control Act, and protects the quality of ground and surface waters.

Routine transport of hazardous materials on major arterials and highways within and surrounding the Planning Area are regulated and monitored by USDOT, Caltrans, and the California Highway Patrol. Any hazardous material transport via railroad through the Planning Area would be regulated and monitored by USDOT.

Although the use, storage and transport of hazardous materials releases cannot feasibly be eliminated, the requirements of existing regulatory programs would reduce potential program-level impacts of routine transport, use, or disposal of hazardous materials and reasonably foreseeable upset or accident conditions to a less-than-significant level.

Mitigation Measures

None required.

⁷ U.S. Environmental Protection Agency (U.S. EPA). 2018. Stormwater Phase II Final Rule: Pollution Prevention/Good Housekeeping Minimum Control Measure. Available: https://www.epa.gov/sites/production/files/2018-12/documents/epa_stormwater_phase_ii_final_rule_factsheet_2.8_pollution_prevention_12-04-18.pdf. Accessed June 2020.

Impact 3.7-2 Implementation of the Proposed Plan would not 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 Incorporated)

Implementation of the Proposed Plan could result in future development of land uses that may involve the use, transportation, disposal, and storage of hazardous materials within the Planning Area. Thus, personal injury, property damage, environmental degradation, or death could potentially result from the release of hazardous materials caused by upset or accident conditions. However, as noted in the discussion of Impact 3.7-1, adherence to requirements of existing regulatory programs would reduce potential impacts associated with the handling of hazardous materials (during both construction and operation) and reasonably foreseeable upset or accident conditions involving the aforementioned hazardous materials handling to a less-than-significant level.

Hazardous materials sites with a potential for contaminated onsite soil and/or groundwater exist within the Planning Area. A summary of the hazardous materials sites located within the Planning Area are included in the *Environmental Setting*. As future projects can occur anywhere within the Planning Area, it is possible that they could be constructed within or immediately adjacent to a hazardous materials site, including those shown on Figure 3.7-1. Depending on the contaminant characteristics and extent of contamination, excavation activities conducted during construction could encounter contaminated groundwater and/or contaminated soil. These established contaminated sites would be remediated/addressed in coordination with and under oversight of the applicable federal, state, and/or local agency (e.g., U.S. EPA, San Francisco Bay Regional Water Quality Control Board, ACWD, DTSC, CUPA, or local environmental health department). Agencies that provide guidance and oversight on sites with a history of releases can include:

- San Francisco Bay Regional Water Quality Control Board: In case of a perceived threat to surface water or groundwater quality, RWQCB, may be contacted.
- Department of Toxic Substance Control (DTSC): DTSC may become involved if there is a higher perceived risk to public health or public safety, and/or if environmental justice concerns are involved.
- U.S. EPA: If a site is determined to be under federal jurisdiction (e.g., federal or military uses, chemical[s] released are subject to the Toxic Substances Control Act, chemical release is at a level that meets or exceeds federal reportable quantities).

The type and extent of the contamination will dictate the appropriate response and remediation for the site and the agencies to be notified. Although these regulatory requirements would be followed, the potential for foreseeable upset and accident conditions involving the release of hazardous materials into the environment from the construction of future Proposed Plan projects could create a significant hazard to the public or the environment. Implementation of a project-level hazardous materials site assessment (as part of **Mitigation Measure HAZ-1**) prior to construction would reduce the potential risks associated with potential releases of contaminated media into the surrounding environment.

Additionally, buildings and structures scheduled to be demolished that have PCBs, lead or asbestos-containing materials would require proper abatement procedures prior to construction activities to reduce potential impacts. Any structures built prior to 1980 (the use of asbestos in buildings and structures was common prior to 1980) and planned for demolition would require an asbestos and lead-based paint survey (as part of **Mitigation Measure HAZ-1**).

Adherence to existing regulations and programs and implementation of **Mitigation Measure HAZ-1** would reduce impacts associated with the release of hazardous materials into the environment due to foreseeable upset and accident conditions to less than significant.

Mitigation Measures

MM-HAZ-1: Project-Level Hazardous Materials Assessment for Construction. The City shall require that applicants proposing development of projects involving ground disturbance within the Planning Area, and where the environmental status of a project site is unknown to the applicant, shall either retain a professional hazardous materials specialist specializing in hazardous materials impact assessment or themselves conduct a project-level environmental database screening to verify the presence or absence of hazardous materials conditions (including Cortese List sites) on the project site or immediately adjacent to the project site. The environmental database screening will consist of a search for environment-related information present in publicly accessible online databases such as the SWRCB's Geotracker, Department of Toxic Substances Control's Envirostor and CalEPA's Cortese List Data Resources. The results of the environmental database screening will be reviewed to determine if the project site or immediately adjacent properties are listed in the aforementioned databases to assess if there is potential for existing hazardous materials conditions to affect construction activities. If neither the project site or immediately adjacent properties are listed in the aforementioned databases or if they are listed in a database but do not have an *active* hazardous materials release, then no further action is required.

If the project site or immediately adjacent properties are listed in the aforementioned databases with an *active* hazardous materials release, the applicant shall retain a professional hazardous materials specialist to determine the potential risk to construction workers, the public, or the environment from construction activities. The determination of risk will consider, among other factors, regulatory status, the type of project, type of contaminated property, distance and direction to the project, and appropriate measures. If the professional hazardous materials specialist concludes that the project will not 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, then no further action is required.

If the professional hazardous materials specialist concludes that the project will 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, the implementing agency will determine the applicability of General Plan Policy S-7.3 (discussed under *Regulatory Setting*) and implement measures to reduce exposure risk including one or more of the following:

- Implementation of engineering controls and Best Management Practices (BMPs) during construction to minimize human exposure to potentially contaminated soils during construction. Engineering controls and construction BMPs could include, but are not limited to, the following:
 - Contractor employees working onsite handling potentially contaminated media will be certified in the Occupational Health and Safety Administration's 40-hour Hazardous Waste Operations and Emergency Response training.
 - Contractors will water or mist soil as it is being excavated and stockpiled or loaded onto transportation trucks.
 - Contractors will place any stockpiled soil in areas shielded from prevailing winds or cover stockpiles with staked and/or anchored sheeting.
- Conducting a soil and/or groundwater sampling program to determine the type and extent of contaminants. The sampling program could include:
 - A scope of work for preparation of a Health and Safety Plan that specifies pre-field activity marking of boring locations and obtaining utility clearance, and field activities, such as identifying appropriate sampling procedures, health and safety measures, chemical testing methods, and quality assurance /quality control procedures
 - Necessary permits for well installation and/or boring advancement (as necessary)
 - A Soil Sampling and Analysis Plan in accordance with the scope of work
 - Laboratory analyses conducted by a state-certified laboratory
 - Disposal processes, including transport by a state-certified hazardous material hauler to a state-certified disposal or recycling facility licensed to accept and treat hazardous waste
- Implementation of a Soil Management Plan. The purpose of a Soil Management Plan is to provide administrative, procedural, and analytical guidance to expedite and clarify decisions and actions if contaminated soils are encountered. Typically, procedures and protocols are included to ensure that contaminated soil is excavated properly and efficiently, and that unacceptable risks are not posed to human health or the environment from contaminated soils. Additionally, the Soil Management Plan would contain procedures for handling, stockpiling, screening, and disposing of the excavated soil. The Soil Management Plan is a site-specific technical plan that could be required depending on other screening activities conducted (listed above) and is not

included as part of this EIR. Appropriate agencies will review the Soil Management Plan.

- If dewatering would be necessary in areas where contaminated groundwater exists, then dewatering procedures could be subject to permit requirements of the NPDES and ACWD as well as other requirements. Wastewater would require proper profile sampling prior to disposal.
- Any structures built prior to 1980 (the use of asbestos in buildings and structures was common prior to 1980) and planned for demolition as part of subsequent projects would require an asbestos and lead-based paint survey. An asbestos survey would be conducted in accordance with the Bay Area Air Quality Management District requirements, Cal OSHA (CCR, Title 8, Section 1529), and the National Emission Standards for Hazardous Air Pollutants for Asbestos Surveys (40 CFR Part 61, Subpart M). CCR, Title 8, Section 1532.1, “Lead,” and Cal OSHA requirements should be followed when handling materials containing lead.

Significance after mitigation: Less than significant.

Impact 3.7-3 Implementation of the Proposed Plan would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. (Less than Significant)

James Logan High School is located within the Planning Area (1800 H Street, within the Civic Center subarea). The Civic Center subarea’s existing mix of land uses is envisioned to largely remain in place with development as part of the Proposed Plan centering around opportunities to improve connections, open space, civic facilities, and community programming in the Civic Center subarea. Facility and programming improvements could include improved pedestrian and bicycle connections along the creek trail to the Intermodal Station and the Alameda Creek Trail, intersection improvements linking to The Marketplace and other destinations, community programming, and civic facility upgrades. Such smaller projects would require less ground disturbance (lessening the potential risk of exposure) during construction and any hazardous materials use would still be subject to applicable requirements as mentioned under Impact 3.7-1. Furthermore, there are no open and active hazardous materials sites within or adjacent to the school campus.

Adherence to the requirements of existing regulatory programs would reduce potential impacts associated with handling hazardous materials near a school to a less-than-significant level.

Mitigation Measures

None required.

Impact 3.7-4 Implementation of the Proposed Plan would not result in development located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment. (Less than Significant with Mitigation Incorporated)

Hazardous materials sites, including LUST sites (which meet Cortese List requirements), exist within the Planning Area, as shown on Figure 3.7-1. As future projects can occur anywhere in the Planning Area, it is possible that they could be constructed within or immediately adjacent to a site that is on the Cortese List, Government Code Section 65962.5. If this is the case, it is possible that excavation activities conducted during construction could encounter contaminated groundwater and/or contaminated soil. Similar to the analysis in Impact 3.7-2, implementation of **Mitigation Measure HAZ-1** prior to construction would reduce the potential risks associated with releases of contaminated media as a result of Proposed Plan implementation within or adjacent to a site meeting Cortese List criterion.

Mitigation Measures

MM-HAZ-1: Project-Level Hazardous Materials Sites Assessment (see above).

Significance after mitigation: Less than significant.

Impact 3.7-5 Implementation of the Proposed Plan would not result in development located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public uses airport, and would result in a safety hazard or excessive noise for people residing or working in the Planning Area. (No Impact)

The Planning Area does not include land within an airport land use compatibility plan. Furthermore, no public airports or public use airports are located within two miles of the Planning Area. The nearest airport is the Hayward Executive Airport, located approximately 6.3 miles northwest of the Planning Area. Other airports in the vicinity include the San Carlos Airport (13.2 miles away, across San Francisco Bay) and the Palo Alto Airport (9.5 miles away, also across San Francisco Bay). The Planning Area does not fall within any of the Airport Influence Areas of these airports, thus, implementation of the Proposed Plan would have no impact on safety hazards or excessive noise due to aviation operations.

Mitigation Measures

None required.

Impact 3.7-6 Implementation of the Proposed Plan would not impair implementation of or physically interfere with an adopted

**emergency response plan or emergency evacuation plan.
(Less than Significant)**

Development associated with the Proposed Plan would not allow any construction vehicles or equipment to park or remain stationary within a roadway. Furthermore, larger construction vehicles entering and exiting a site would be guided by personnel using signs and flags to direct traffic. Moreover, the development associated with the Proposed Plan 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 Planning Area.

Therefore, the Proposed Plan would not affect implementation of any local emergency response plan, such as the Union City Comprehensive Emergency Management Plan or the Union City/Newark Multi-Jurisdiction Hazard Mitigation Plan. The City would require any development proposed as part of the Proposed Plan to comply with existing General Plan Policy S-2.1, which states that the City will not permit construction in areas where emergency access cannot be adequately ensured. Consequently, construction associated with the Proposed Plan is expected to alter travel through the Planning Area, however, adherence to General Plan Policy S-2.1 would ensure that local emergency facilities (such as Alameda County Fire Station 33 located at 33942 7th Street and the Union City Police Department on 34009 Alvarado-Niles Road) are provided adequate emergency access. Therefore, the Proposed Plan would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, making impacts less than significant.

Mitigation Measures

None required.

Impact 3.7-7 Implementation of the Proposed Plan would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires. (No Impact)

According to CAL FIRE's Fire and Resource Assessment Program's Fire Hazard Severity Zones in SRA (State Responsibility Area) Alameda County, the Planning Area is not located within a moderate, high or very high fire hazard severity zone.⁸ The Proposed Plan is located within a mostly developed area of Alameda County, with no wildland areas nearby. Therefore, it is expected that construction associated with the Proposed Plan would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. No impact would occur.

Mitigation Measures

None required.

⁸ CAL FIRE, 2007.

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3.8 Hydrology and Water Quality

This section assesses potential environmental impacts from future development under the Union City Station District Specific Plan (Proposed Plan) related to hydrology and water quality. Issues addressed include water quality standards, groundwater resources, drainage, and flood hazards related to rivers, sea level rise, dam failure, seiches, tsunamis, and mudflows. The section describes existing surface water and groundwater hydrology, water quality, and flood hazards in the Planning Area, , as well as relevant federal, state, and local regulations and programs.

There was one response to the Notice of Preparation (NOP) regarding topics covered in this section. The Alameda County Water District (ACWD) requested that the Draft EIR consider potential for impacts related to groundwater well protection and destruction; temporary and permanent dewatering activities; release of contaminated runoff; and surface water quality that recharges groundwater on which local supply relies. Additionally, ACWD requested that the Draft EIR reflect that permits are required for the installation and destruction of dewatering wells and for subsurface drilling activities for wells, exploratory holes, and other excavation. These comments are addressed in this section and incorporated into the following analysis.

Environmental Setting

PHYSICAL SETTING

Groundwater

The Planning Area 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 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.¹ Seawater intrusion is common in the basin and

¹ 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.

has moved landward and into deeper aquifers since first recorded in the 1920s. The Alameda County Water District began treating brackish groundwater in 2003 to allow previously unused groundwater to be used as potable water.²

Surface Water Resources

The Planning Area 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, and Alameda Creek, with its waters finally 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 known as the Alameda Flood Control Channel, south of the Planning Area. The Quarry Lakes, including Rainbow Lake, Horseshoe Lake, and Lago Los Osos, are east of the Planning Area.

Storm Drain Facilities

The Planning Area features gently sloping topography, with elevations ranging from about 70 to 100 feet above sea level. Impervious surfaces within the Planning Area include major and minor roadways, residential and commercial development, schools, and recreation complexes with paved areas (e.g., basketball courts). Streets in the Planning Area include storm drainage facilities, including a number of underground culverts/storm drains and engineered channels.

Water Quality

The *Water Quality Control Plan for the San Francisco Bay Basin* (Basin Plan), as administered by the San Francisco Bay Regional Water Quality Control Board, 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 fishing and sport fishing, cold freshwater habitat, fish migration, and fish spawning.³

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

² Department of Water Resources 2019. *SGMA Basin Prioritization Dashboard*. Available: <https://gis.water.ca.gov/app/bp-dashboard/final/>. Accessed: March 4, 2020.

³ 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.

information is not available for making an appropriate recommendation; therefore, the Quarry Ponds are not 303(d) listed as impaired.⁴

Groundwater resources in the vicinity of the Planning Area are located within the Santa Clara Valley – Niles Cone basin (Basin No. 2-009), as defined in the Basin Plan. Beneficial uses of the Santa Clara Valley – Niles Cone groundwater basin include municipal, domestic, industrial, and agricultural uses.

Flooding

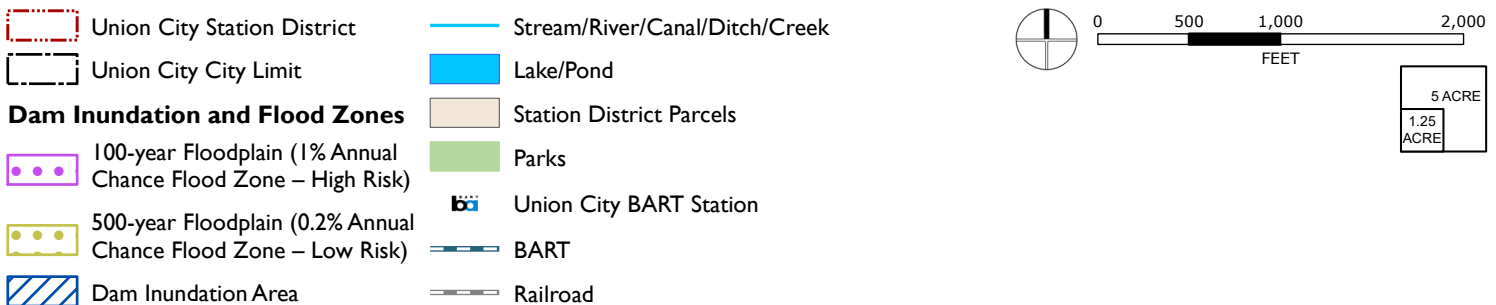
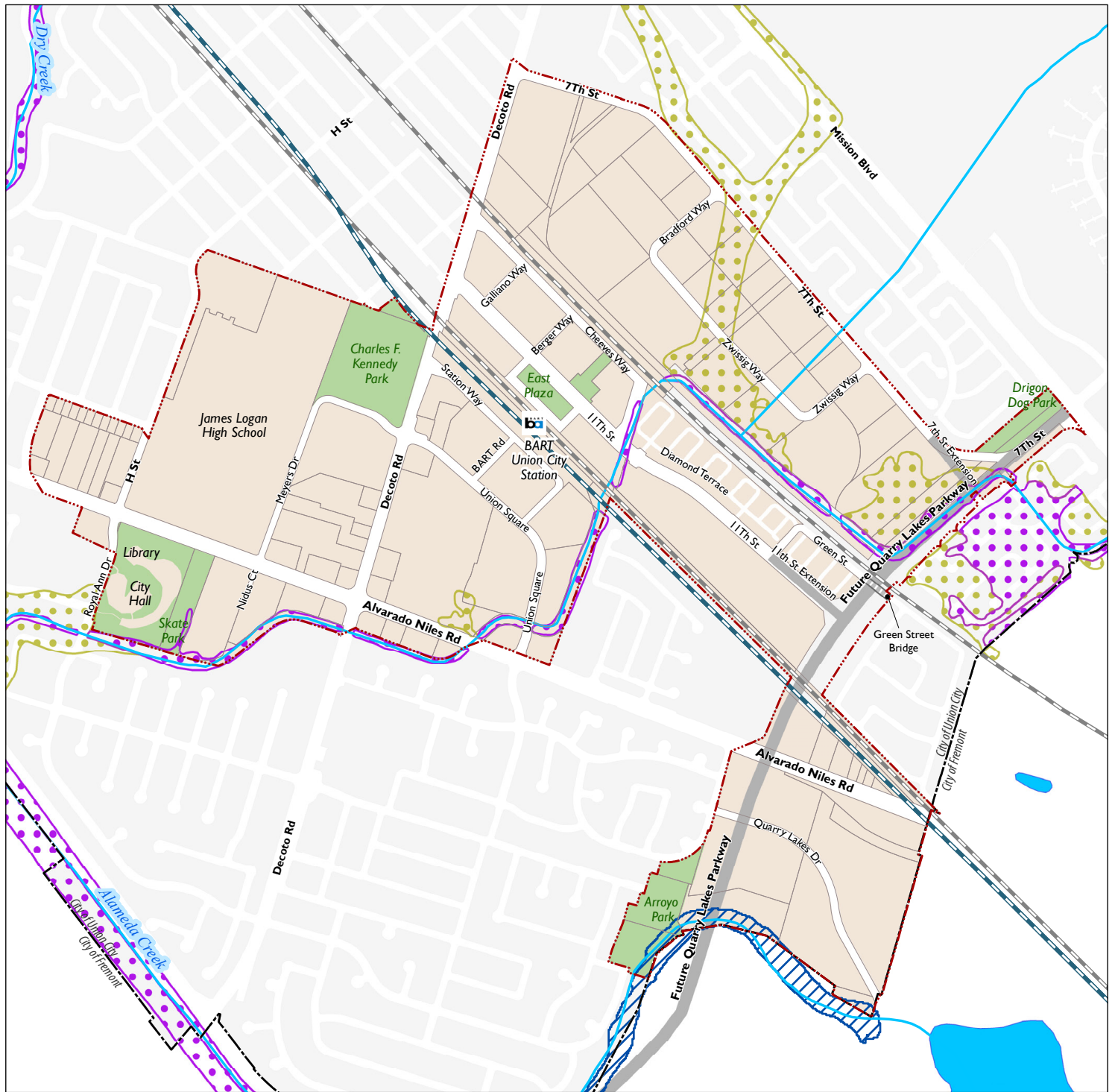
Figure 3.8-1 shows the 100-year and 500-year floodplains within the Planning Area based on the Federal Emergency Management Agency (FEMA) mapping. The Planning Area includes approximately 11 acres of areas designated as 100-year floodplains, which means that such areas are expected to flood once every 100 years. These areas primarily comprised of lands along the Alameda County Flood Control Line M Channel. In addition, there are smaller areas, including an unnamed ditch bisecting the Planning Area, within the 100-year floodplain. Outside of the Planning Area, the nearest 100-year floodplains include Alameda Creek, Dry Creek, and the portion of the Line M Channel located in the area near Shilom Drive.

The Planning Area also includes approximately 21 acres of 500-year floodplains (areas where flooding is expected once every 500 years. Such areas include the land between 7th Street, Bradford Way and the Union Pacific Rail-road tracks. The remainder of the Planning Area is predominantly in an area of minimal flood hazard (flooding not anticipated in the 100 year or 500-year time frames).

The City participates in the Federal Flood Insurance Program and must comply with requirements of the program. New development is prohibited within the channel of Dry Creek and the Line M Channel. Unless mitigation measures are taken to locate improvements above base flood elevations, as required by the Federal Flood Insurance Program, new development within Special Flood Hazard Areas outside of the channels is also prohibited. To minimize flood hazards, the City works with the Alameda County Flood Control and Water Conservation District to implement measures for the abatement of flooding hazards, as appropriate, such as the removal or relocation of development from flood hazard areas, construction of impoundments or channel diversions, and debris and silt removal programs.

⁴ 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. Accessed: March 4, 2020.

Figure 3.8-1 Waterways and Flood Zones in the Vicinity of Planning Area



Source: ICF, 2020; City of Union City, 2019; Alameda County GIS, 2019.

The Alameda County National Pollutant Discharge Elimination System for stormwater run-off includes appropriate source control, site design, and stormwater treatment measures for projects to address stormwater runoff pollutant discharges and prevent increases in runoff flows from new development and redevelopment projects. The San Francisco Bay Regional Water Quality Control Board also requires treatment of stormwater runoff for new developments, including flow through retention or detention basins, prior to discharge into waterways. Thus, projects will be required to consider design features for stormwater retention, detention, and/or water quality treatment.

Dam and Levee Failure Inundation Zones

Any dam poses a potential risk of failure, which would most likely be caused from seismically induced ground shaking or other seismic events, and which threatens the area below the dam with inundation. There are three dams in the vicinity of the Planning Area (Turner Dam at San Antonio Lake, Calaveras, and Del Valle) that would result in flooding a portion of the Planning Area (approximately 3 acres) in the event of a dam failure. All three dams are located east of the Planning Area. Failure of the Calaveras and Del Valle dams pose the greatest threats to the Planning Area. As shown in Figure 3.8-1, dam failure inundation would occur at the southern boundary of the Planning Area, south of Quarry Lake Drive, adjacent to an unnamed creek.

Coastal and Bay Hazards

Seiche

A seiche is a standing wave that oscillates in a body of water, due to strong winds, changes in atmospheric pressure, or seismic waves from an earthquake passing through a water body. Seiche occurs in an enclosed or partially enclosed body of water, such as a lake or reservoir. There are no large water bodies within or near enough to the Planning Area likely to result in a flood risk from a seiche.

Tsunamis

Tsunamis are long-period water waves caused by underwater seismic events, volcanic eruptions, or undersea landslides. Tsunamis affecting the San Francisco Bay region would most likely originate west of the bay, in the Pacific Ocean. Areas that are highly susceptible to tsunami inundation tend to be low-lying coastal areas, such as tidal flats, marshlands, and former bay margins that have been artificially filled. The San Francisco Bay is approximately 6.5 miles west of the Planning Area. The Planning Area ranges in elevation from approximately 65 feet above mean sea level (msl) to approximately 100 feet above msl. Based on the distance from San Francisco Bay and elevation of the Proposed Plan, the Planning Area is not susceptible to tsunami inundation.

REGULATORY SETTING

Federal Regulations

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.

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.

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 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) 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. On May 13, 2021, the Alameda County Water District's 2020-2025 Plan and the addendum to the 2015-2020 UWMP Plan were adopted. Alameda County Water District appended its 2015-2020 Plan to meet the requirements of the Delta Plan Policy WR P1, "Reduce Reliance on the Delta Through Improved Regional Water Self-Reliance" ("Reduce Reliance on the Delta"; California Code of Regulations, Title 23, section 5003). Alameda County Water District's 2020-2025 Plan also includes the Reduce Reliance on the Delta requirements and Water Shortage Contingency Plan. 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.

Municipal Stormwater Permitting Program

The San Francisco Bay Region Municipal Regional Stormwater NPDES Permit, Order No. R2-2015-0049 (MRP) issues the Waste Discharge Requirements and NPDES Permit for the discharge of stormwater runoff from the municipal separate storm sewer systems (MS4s) of over 70

municipalities, including Union City, and local agencies in five Bay Area counties. Under the MRP, permittees are prohibited from non-stormwater discharges into storm drain systems and watercourses. Permitted discharges must not cause or contribute to a violation of any applicable water quality standard for receiving waters. Upon a determination by either the MRP permittee(s) or the RWQCB that discharges are causing or contributing to an exceedance of an applicable water quality standard, the permittee(s) must notify, within no more than 30 days, and thereafter submit a report to the RWQCB. The report must describe controls or BMPs that are currently being implemented, and the current level of implementation, and additional controls or BMPs that will be implemented, and/or an increased level of implementation, to prevent or reduce the discharge of pollutants that are causing or contributing to the exceedance of water quality standards. The MRP also sets forth requirements for monitoring water quality.

Provision C.3 of the MRP establishes discharge requirements for new development and redevelopment projects. The goal of Provision C.3 is for the MRP permittees to use their planning authorities to include appropriate source control, site design, and stormwater treatment measures in new development and redevelopment projects to address stormwater runoff pollutant discharges and prevent increases in runoff flows from new development and redevelopment projects. According to the MRP, this goal is to be accomplished primarily through the implementation of low impact development (LID) techniques.

Union City General Plan (UC 2040)

The Union City General Plan (UC 2040) 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 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-4.17: 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.

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.

Title 18, Chapter 18.98, Floodplain Combining District (Floodplain Ordinance) of the Union City Municipal Code provides provisions to protect human life and health, methods of reducing flood losses, and minimize public and private losses due to flood conditions in specific areas including damage to public facilities and utilities located in areas of special flood hazard. Standards of construction in areas of special flood hazards, utilities, and subdivisions for flood hazard reduction are also provided.

Impact Analysis

SIGNIFICANCE CRITERIA

For the purposes of this EIR, a significant impact would occur if the Proposed Plan would:

- Criterion 1:** Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality;
- Criterion 2:** Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;
- Criterion 3:** Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which 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 which would result in flooding on- or offsite;
 - c. Create or contribute runoff water which 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.
- Criterion 4:** Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam, or inundation by seiche, tsunami, or mudflow; or
- Criterion 5:** Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

METHODOLOGY AND ASSUMPTIONS

All Proposed Plan elements were analyzed by comparing existing conditions, as described in the Environmental Setting section, to conditions during implementation of the Proposed Plan. The analysis focuses on issues related to surface hydrology, flood hazards, groundwater supply, and surface and groundwater quality. Because future construction associated with the Proposed Plan can occur anywhere within the Planning Area, potential hydrology and water quality impacts associated with future development as a result of the Proposed Plan implementation are analyzed qualitatively at a program level.

Surface Water Hydrology

The surface water hydrology impact analysis considers potential changes in the physical characteristics of water bodies, impervious surfaces, and drainage patterns throughout the City as a result of the Proposed Plan's implementation.

Groundwater Hydrology

Impacts on groundwater supply and recharge are assessed by comparing existing groundwater use and recharge capabilities with conditions within the Planning Area after implementation of the Proposed Plan. Recharge is determined by the ability of water to infiltrate into the soil.

Surface and Groundwater Quality

Impacts of the Proposed Plan on surface water and groundwater quality were analyzed by using information on potential existing water quality conditions. Potential Proposed Plan-related sources of water contaminants generated by residential, retail, office, commercial and industrial operational activities, such as vehicle use, building maintenance, pesticide use, trash generation, and the storage or inadvertent release of hazardous materials during construction associated with the Proposed Plan, are considered. The potential for water quality objectives to be exceeded and beneficial uses to be compromised is also considered.

Flooding

The flood risk analysis uses FEMA data and historical flood information to determine the existing flood zone and whether the Planning Area overlaps designated 100-year floodplains, whether it would affect the drainage system, and whether it was a flood risk. CEQA does not require an analysis of how existing environmental conditions will affect a project's residents or users unless the project would exacerbate an existing environmental hazard. Accordingly, hazards resulting from a project that places development in an existing or future flood hazard area are not considered impacts under CEQA unless the project would exacerbate the flood hazard. Thus, the analysis evaluates whether the Proposed Plan would exacerbate existing or future flood hazards in the City, resulting in a substantial risk of loss injury or death. If evidence indicates it would not, then the analysis will conclude by stating such. If it could exacerbate the issue, then evidence is provided to determine if the exacerbation would or would not be significant.

RELEVANT PROPOSED GOALS AND POLICIES

The following policy of the Proposed Plan is generally relevant to potential hydrology and water quality impacts.

Urban Design

P-UD-26 **Sustainability.** Ensure that development incorporates sustainable site design measures such as permeable paving, stormwater management, and water efficient landscaping.

IMPACTS

Impact 3.8-1 Implementation of the Proposed Plan would not violate any federal, state, or local water quality standards or waste discharge requirements. (*Less than Significant*)

The Proposed Plan would have a significant environmental impact if it would violate water quality standards and waste discharge requirements such as those set out in the NPDES General Permit for Construction Activities (Construction General Permit). Violation could occur if the Proposed Plan would substantially increase pollutant loading levels in the sanitary sewer system, either directly, through the introduction of pollutants generated by industrial or other land uses, or indirectly, through stormwater pollution.

Construction activities arising from implementation of the Proposed Plan such as grading, 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 Planning Area.

Construction activities must comply with the NPDES Construction General Permit, the San Francisco Bay Municipal Regional Permit (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 construction sites 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 dikes) 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.

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. As discussed in Section 3.8, *Hazards and Hazardous Materials*, a portion of the Planning Area is known to contain residual concentrations of volatile organic compounds (VOCs) in groundwater due to a groundwater plume with known contamination. Because the Planning Area contains residual VOC concentrations in groundwater, development associated with the Proposed Plan 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 Proposed Plan 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. Development associated with the Proposed Plan 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.

The Proposed Plan would be required to comply with MRP Provision C.3 because it would facilitate development collectively resulting in more than 5,000 square feet of new or replaced impervious area. 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, development associated with the Proposed Plan must consider rainwater harvesting and reuse, infiltration, and evapotranspiration as LID treatment measures.

The stormwater management measures proposed for the Proposed Plan would reduce pollutant discharges from stormwater through bio-retention. Provision C.3 states 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 existing General Plan and the Proposed Plan policies emphasize green infrastructure. Development associated with the Proposed Plan would likely include new landscaping along the perimeter of sites as well as between the planning areas. The landscape design would minimize stormwater runoff and promote surface filtration. Development associated with the Proposed Plan would be subject to the City's adopted "Green Infrastructure Plan." The Green Infrastructure 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 bio-retention on 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.

Development associated with the Proposed Plan 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, existing General Plan and Proposed Plan policies, and local plans. Stormwater runoff would be treated using LID measures, as required, such as bio-retention areas. Therefore, at the program level, development associated with the Proposed Plan 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.

Mitigation Measures

None required.

Impact 3.8-2 Implementation of the Proposed Plan would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. (Less than Significant)

The Planning Area is within the Santa Clara Valley – Niles Cone Groundwater Basin, which is classified as a medium-priority basin. 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.

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. 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.

Buildout of the Proposed Plan would result in 9,400 new residents and 15,900 new jobs over 2020 conditions in the Planning Area. A significant impact could occur if groundwater were drawn to serve the needs of new residents, employees, and visitors in a way that would interfere

substantially with groundwater recharge. However, development associated with the Proposed Plan would not draw directly from local groundwater (i.e., drill new wells) during either construction or operation.

Development associated with the Proposed Plan would be expected to increase the amount of impervious area within the Planning Area, which could indirectly influence groundwater recharge.

Open space included in development associated with the Proposed Plan would allow for groundwater infiltration and groundwater recharge. Moreover, the development associated with the Proposed Plan would include new landscaped areas, including new bio-retention areas, which would allow for a degree of groundwater recharge.

Furthermore, existing regulations and existing General Plan policies would ensure that development under the Proposed Plan would not interfere substantially with groundwater recharge. These include LID measures to capture and infiltrate stormwater runoff as well as a requirement that projects which need to conduct dewatering activities obtain a drilling permit from the ACWD prior to commencement of activities. Proposed policies would help to reduce water demand, reducing the future burden on groundwater supplies include Policy P-UD-26, which would require that development incorporate sustainable site design measures such as water efficient landscaping.

Based on the foregoing, at the program level, development under the Proposed Plan would not substantially decrease groundwater supplies and would not impede sustainable groundwater management of the basin. Therefore, this impact would be less than significant.

Mitigation Measures

None required.

Impact 3.8-3 Implementation of the Proposed Plan would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces in a manner which would result in substantial erosion, siltation, or flooding on- or off-site; substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or impede or redirect flood flows. (*Less than Significant*)

Erosion, Siltation, or Flooding

Implementation of the Proposed Plan would include new development and streetscape changes. Vacant and agricultural lands within the Planning Area, which are currently permeable would be developed with an increased amount of impervious surface area as a result of the Proposed Plan. The Planning Area is currently served by storm drainage facilities including underground

culverts/storm drains and engineered channels. Buildout of the Proposed Plan could increase runoff and alter existing drainage patterns resulting in erosion, siltation, and flooding. Additionally, construction activities could involve excavation and disturbance of existing ground surface, exposing base soil and temporarily altering surface drainage patterns.

Development projects under the Proposed Plan would be required to develop and implement a SWPPP with erosion and sediment control BMPs as required by the State's Construction General Permit and MS4 Permit regulations. Standard erosion and sediment control measures and other housekeeping BMPs, such as vehicle and equipment maintenance, material delivery and storage, and solid waste management, would be identified in the SWPPP. These measures would be identified for each individual project and implemented during construction to reduce contamination and sedimentation in waterways.

The SWPPP would also include a range of stormwater control BMPs (e.g., installing silt fences, staked straw wattles, or geofabric to prevent silt runoff to storm drains or waterways); requirements for the stockpiling, protection, and replacement of topsoil and backfill at the conclusion of construction activities; and requirements for revegetation of turf, plants, and other vegetation upon completion of construction. Projects disturbing less than an acre of ground surface during construction would not be required to prepare a SWPPP, but would be required to implement the construction site control BMPs required by the City's MS4 NPDES permit. Development associated with the Proposed Plan would be required to comply with Provision C.3, which requires adoption and implementation of LID techniques, including 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. Development would also be subject to requirements of the Construction General Permit, San Francisco Bay RWQCB Municipal Stormwater Pollution Prevention Program, and the City's grading requirements per Title 15, Chapter 15.85, Grading and Erosion Control of the Union City Municipal Code. With implementation of erosion and sediment control BMPs, construction activities would result in less than significant erosion, siltation, and flooding impact during construction activities associated with the Proposed Plan.

Compliance with applicable regulations and implementation of erosion and sediment control BMPs discussed above would ensure that impacts associated with substantial alteration of the existing drainage pattern of the Planning Area would be reduced. Therefore, at the program level, development under the Proposed Plan would not result in substantial erosion, siltation, or flooding on- or off-site and impacts would be less than significant.

Surface Runoff

The City's stormwater conveyance system is designed to capture, direct, and convey peak storm event flows away from buildings thereby protecting life and public property from flood hazards associated with events that have a less than or equal to one percent chance of occurrence (100-year flood event). Union City and the Alameda County Flood Control and Water Conservation District (ACFCWCD) has set forth guidelines to help developers and municipalities in the design of storm drain systems under peak flow rate conditions. These facilities carry runoff water within the drainage basin to nearby flood control channels which are owned and maintained by

ACFCWCD. Future drainage facilities, if required, would be designed to meet Union City Standards and would drain to the existing public storm drain system.

Further, compliance with applicable policies and actions in the existing General Plan and the Floodplain Ordinance (Municipal Code 18.98) would further reduce future flood risks. Therefore, at the program level, development under the Proposed Plan would not substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite and impacts would be less than significant.

Runoff Water

Buildout of the Proposed Plan and construction of approved pipeline projects would result in an increase in impervious surface with the development of up to 3,930 new housing units and up to 4,404,000 square feet of new non-residential uses. Impervious surfaces would include new buildings, sidewalks, pathways, parking areas and similar improvements. Runoff from these surfaces could include various pollutants, such as oils, solvents and other pollutants that could be transported through drainage channels and ultimately the San Francisco Bay. By implementing long-term changes to streetscapes and pedestrian walkways, increasing parking spaces, building new residential and mixed-use development, and otherwise introducing new impervious surfaces, implementation of the Proposed Plan could create or contribute polluted runoff. Additional runoff could also exceed the capacity of existing or planned stormwater drainage systems within the Planning Area.

The City owns and maintains the storm drainage collection system, which is comprised of reinforced concrete pipe, and discharges by permit to the San Francisco Bay. As described above, the City's stormwater conveyance system is designed to capture, direct, and convey peak storm event flows. Current stormwater requirements for construction and new development regulate both the quality and the quantity of storm runoff. Storm water quality is regulated under the MRP, of which the City of Union City is a permittee. Developments within the Planning Area must meet storm water treatment regulations (C3), hydromodification requirements (C3g), as well as trash capture regulations (C10). Guidelines for implementing these regulations are detailed in the Alameda Countywide Clean Water Program handbook and are reviewed and permitted by Union City. Furthermore, hydromodification requirements are triggered by projects that create or replace one acre or more of impervious area, unless the post-project impervious area is less than or equal to the pre-project impervious area. Future development could be exempt from hydromodification requirements if located in an area that is already highly developed (70 percent or more impervious). Required compliance with existing local regulations would reduce the amount of runoff as well as the risks of the Proposed Plan contributing significant additional polluted runoff. Any new development associated with buildout of the Proposed Plan would be required to comply with best practices for stormwater treatment, as required by the City's MS4 Permit. These stormwater treatment guidelines would require new development within the Planning Area to detain storm runoff with bioretention facilities, minimize surface flow velocities, and make use of all applicable LID techniques. New development, during both construction and operations phases, would be required to comply with the NPDES General Permit for Construction Activities, which requires the preparation of a SWPPP and implementation of BMPs to mitigate risks of polluted runoff.

With continued compliance with the existing regulations and existing General Plan policies identified above, the Proposed Plan would not substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site or generate substantial polluted runoff. Therefore, at the program level, development under the Proposed Plan would result in impacts that would be less than significant.

Impede or Redirect Floodflows

There are approximately 11 acres of 100-year and 21 acres of 500-year floodplains in the Planning Area. The City participates in the Federal Flood Insurance Program and is thus required to comply with requirements of the program. New development is prohibited within the channel of Dry Creek and the Line M Channel. Furthermore, as required by the Federal Flood Insurance Program, new development within Special Flood Hazard Areas outside of the channels is also prohibited. However, provisions for construction in Special Flood Hazard Areas include raising finished floor elevations or grading the site or building outside of base flood elevation to reduce flood impacts. To minimize flood hazards, the City works with the Alameda County Flood Control District to implement measures for the abatement of flooding hazards, as appropriate, such as the removal or relocation of development from flood hazard areas, construction of impoundments or channel diversions, and debris and silt removal programs. Therefore, at the program level, development under the Proposed Plan would not impede or redirect flood flows and impacts would be less than significant.

Mitigation Measures

None required.

Impact 3.8-4 Implementation of the Proposed Plan would not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam, or inundation by seiche, tsunami, or mudflow. (Less than Significant)

As discussed above, there are approximately 11 acres of 100-year floodplains in the Planning Area, primarily comprised of the area along the Line M Channel. Outside of the Planning Area, the nearby 100-year floodplains include Alameda Creek, Dry Creek, and the portion of the Line M Channel located the area near Shilom Drive. In addition, there are smaller areas, including an unnamed ditch bisecting the Planning Area, within the 100-year floodplain. There are approximately 21 acres of 500-year floodplains in the Planning Area, primarily comprised of the area along an underground culvert or storm drain between 7th Street, Bradford Way and the Union Pacific Railroad tracks. As shown in Figure 3.8-1, most of the Planning Area is in an area of minimal flood hazard, above the 500-year flood level. Further, new development associated with buildout of the Proposed Plan within the 100-year floodplain would be in compliance with the Floodplain Ordinance (Municipal Code 18.98).

There are three dams located east of the Planning Area that would result in flooding of portions of the City in the event of a dam failure. There are approximately 3 acres of dam inundation area within the Planning Area at the southern boundary, south of Quarry Lake Drive, adjacent to an unnamed creek. The dams are subject to the National Dam Safety Act, reauthorized in 2014,

which aims to reduce risks to life and property arising from dam failure. The US Secretary of the Army is required to maintain a database of all dams in the United States, including inspection details and jurisdiction, and the Act establishes funding and authority for safety oversight and staff safety training. The Interagency Committee on Dam Safety (ICODS) prepared and approved federal guidelines for dam safety risk management and emergency action planning, which requires federally-owned dam operators to conduct risk assessments and risk reduction measures.⁵ The Bureau of Reclamation's Security, Safety and Law Enforcement Office carries out safety and risk management for the dams under its jurisdiction, including Turner, Calaveras, and Del Valle Dams.

There are no levees within or near the Planning Area that could threaten buildout associated with the Proposed Plan with flooding. Further, the Planning Area is generally flat; any flooding that could occur from significant rainfall would be absorbed by the City's storm drainage system, and existing and proposed pervious surfaces.

Most of the Planning Area lies approximately 70 to 100 feet above sea level. Based on the distance from San Francisco Bay and elevation of the Planning Area, the Proposed Plan is not susceptible to tsunami inundation. Furthermore, there are no large water bodies within the Planning Area likely to result in a flood risk from a seiche.

Mud and debris flows are mass movements of dirt and debris that occur after intense rainfall, earthquakes, and severe wildfires. The speed of a slide depends on the amount of precipitation, steepness of the slope, and alternate freezing and thawing of the ground. Most debris flows occur during intense rainfall in areas with steep slopes. As discussed in Section 3.7, *Geology, Soils, and Seismicity*, while precipitation-induced landslides occur in the steep hills east of the Planning Area, the Planning Area is relatively flat and not susceptible to landslide. Therefore, based on existing conditions within the Planning Area, the relatively gentle topography, and with compliance with existing regulations, development associated with buildout of the Proposed Plan would not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam, or inundation by seiche, tsunami, or mudflow. Therefore, at the program level, development under the Proposed Plan would result in impacts that would be less than significant.

Mitigation Measures

None required.

Impact 3.8-5 Implementation of the Proposed Plan would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. (*Less than Significant*)

Construction and operation associated with the Proposed Plan would comply with local, State, and federal regulations, including the NPDES Construction General Permit, Basin Plan, San

⁵ FEMA. 2015. Dam Safety Risk Management. Available: https://www.fema.gov/sites/default/files/2020-08/fema_dam-safety_risk-management_P-1025.pdf.

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 associated with future development, 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 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 Proposed Plan would not obstruct implementation of a water quality control plan.

Groundwater dewatering is not anticipated during project construction; however, in the event such activities are required, projects would be required to obtain a permit from the the ACWD prior to the start of such activities. In addition, groundwater would not be used during construction activities or operation. Therefore, the Proposed Plan would not obstruct implementation of a sustainable groundwater management plan. In addition, implementing applicable existing General Plan policies would require the protection of groundwater resources, as required by a sustainable groundwater management plan. Therefore, construction and operation of the Proposed Plan would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Therefore, at the program level, development under the Proposed Plan would result in impacts that would be less than significant.

Mitigation Measures

None required.

3.9 Land Use, Population, and Housing

This section assesses potential environmental impacts from future development under the Proposed Plan, as related to land use, population, and housing, including evaluation of Proposed Plan consistency with other applicable land use plans and regulations, population growth, community division, and housing displacement. This section describes existing land uses, demographics, and housing in the Planning Area, as well as relevant federal, State, and local regulations and programs.

Environmental Setting

PHYSICAL SETTING

Existing Land Use

The 471-acre Planning Area includes a wide mix of uses – civic uses, housing, shopping centers, large clusters of industrial uses, parks and recreational spaces, as well as vacant land. The relative acreage and distribution of existing land uses throughout the Planning Area are shown in Figure 3.9-1 and Table 3.9-1.

Public/Institutional

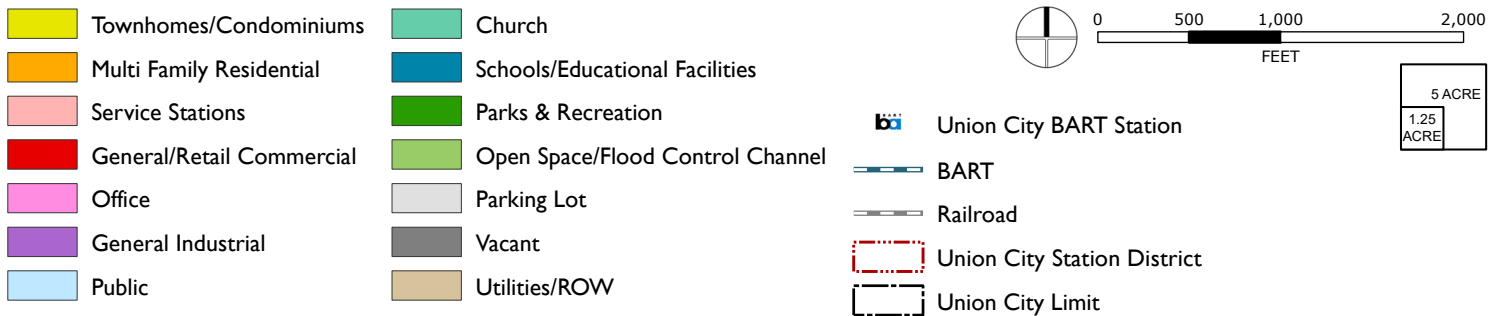
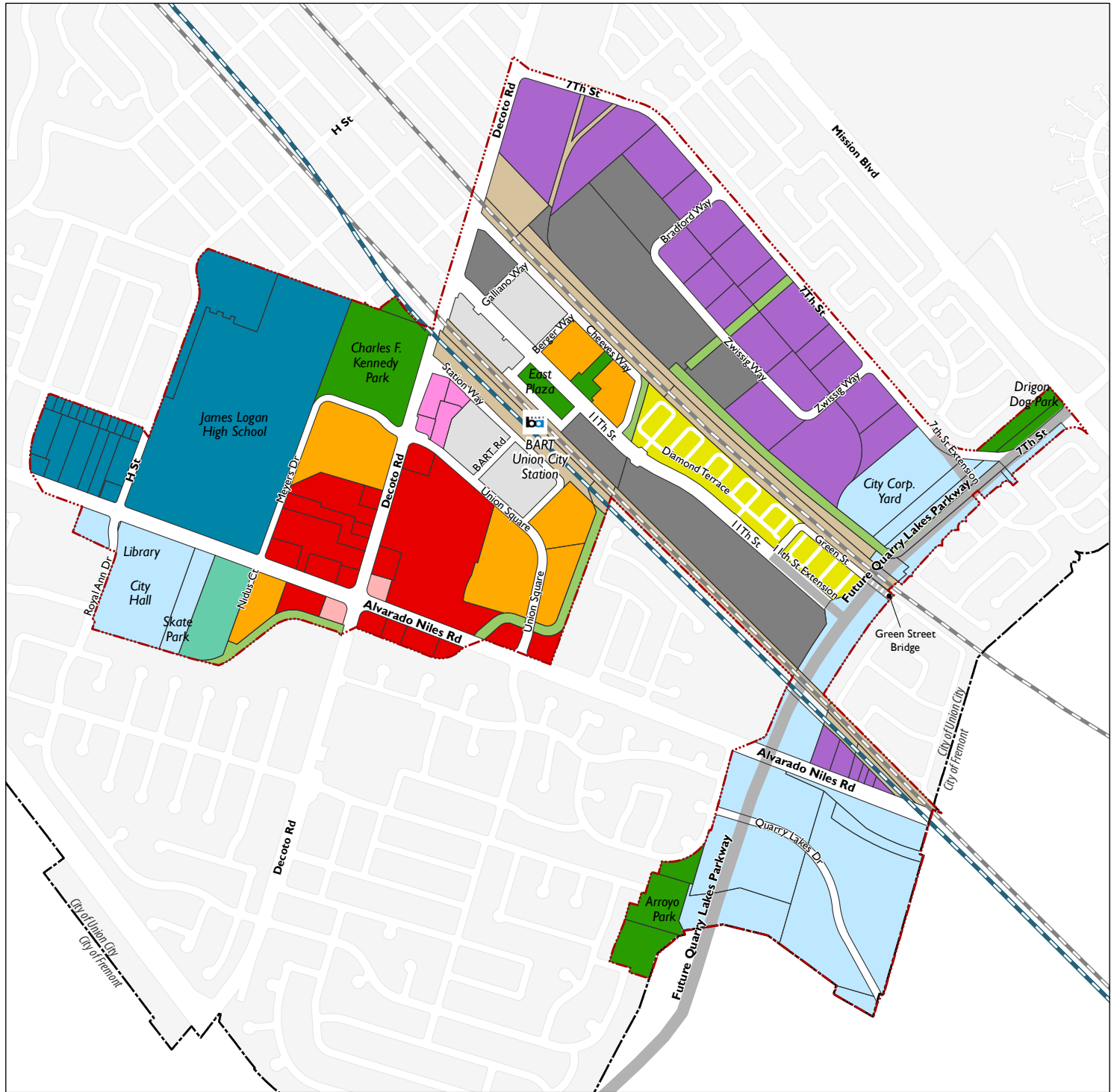
Within the Planning Area, public, institutional and civic land uses account for almost a third, or 30.8 percent of the land. This includes a variety of public facilities such as the Union City Intermodal Station, City Hall, the Union City Library, which is part of the Alameda County Library system, and the Union City Corporation Yard located in the Station East subarea. Public land uses also include several undeveloped parcels of land in the Gateway.

Union City has purchased property formerly owned by Caltrans in the Gateway subarea that is planned to accommodate the future Quarry Lakes Parkway and residential development.

Residential

Residential land uses comprise 8.6 percent, or 40.5 acres of the Planning Area, and consist of a combination of townhomes, condominiums, and multi-family dwellings. Some newer developments in the Planning Area, such as the Union Flats apartments, combine high-density residential with commercial uses such as live/work spaces.

Figure 3.9-1: Existing Land Use



Source: City of Union City, 2019; Alameda County GIS, 2019.

Commercial

Commercial uses, including retail and office uses, account for 38.6 acres, or 8.2 percent of the land in the Planning Area. These are primarily concentrated in the Marketplace subarea and include a variety of retail, restaurant and office uses, as well as auto-oriented retail stores and service stations.

Industrial

Industrial land uses represent 12 percent, or 56 acres of the Planning Area. The majority of this land is under private ownership and located within the Station East subarea near 7th Street. These areas include warehousing, distribution, manufacturing, outdoor storage yards, and offices.

Parks

Parks and recreational spaces account for another 23 acres, or 5 percent of the Planning Area and are widely distributed throughout the Planning Area. These spaces include a variety of parks and public plazas, including the Charles F. Kennedy Park, Drigon Dog Park, Arroyo Park, the Promenade, and the Station District Plaza. These public spaces include features such as playgrounds and play equipment, outdoor public seating, and open grassy fields.

Vacant

There are also 45 acres of vacant land, or 10 percent of land in the planning area, under a combination of public and private ownership. Some of these vacant parcels are the location of active development proposals or agreements for transit-oriented housing and office. One of the largest vacant parcels in the Planning Area is the 16-acre Restoration Site, owned by the City of Union City and planned for future office and residential uses previously and continued to be so under the Proposed Plan.

The remaining 63 acres or 13.3 percent of the Planning Area is occupied by public streets and roads.

Table 3.9-1: Existing Land Use Summary

<i>Land Use</i>	<i>Acres</i>	<i>Percent</i>
Townhomes/Condominiums	13.4	2.8%
Multi Family	27.1	5.8%
Service Stations	1.2	0.3%
General/Retail Commercial	34.7	7.4%
Office	2.7	0.6%
General Industrial/Warehouse	56.3	12.0%
Public	81.6	17.3%
Church	5.2	1.1%
Schools/Educational Facilities	58.2	12.4%
Parks & Recreation	22.6	4.8%
Open Space/Flood Control Channel	10.8	2.3%
Parking Lots	13.5	2.9%
Vacant	45.3	9.6%
Utilities	35.4	7.5%
Transportation/Roads/ROW	62.6	13.3%
Total	470.5	100.0%

Source: Dyett & Bhatia, 2021.

Population

In 2020, the population of the Planning Area was approximately 5,000 residents, and the population of the City was approximately 73,248. Union City's population has grown rapidly since incorporation of the Alvarado and Decoto neighborhoods in 1959, but population growth has slowed compared to recent decades. Between 2010 to 2020, the City's population increased by five percent from 69,516 residents. Between 2020 and 2040, the City's population is projected to increase by approximately 9.0 percent, growing to 79,845. Table 3.9-2 presents the anticipated population and job growth projections for the Planning Area and Union City between 2020 and 2040 based on buildout projections developed for the Proposed Plan and the recently adopted 2040 General Plan.

Table 3.9-2: Planning Area and Union City Population and Job Growth Projections, 2020–2040

	<i>2020</i>	<i>2040</i>	<i>Net Increase</i>	<i>Percent Change</i>
Population				
Planning Area	5,000	14,400	9,400	188.0
Union City	73,248	84,477	11,229	15.3
Housing Units				
Planning Area	1,720	5,650	3,930	228.5
Union City	21,839	24,813	2,974	13.6
Jobs				
Planning Area	2,300	18,200	15,900	691.3
Union City	32,200	37,333	5,133	15.9

Source: Dyett & Bhatia, 2021; Department of Finance, 2021; State of California Employment Development Department, 2021; Mintier Harnish, 2018.

Housing

In 2020, there were 1,720 housing units in the Planning Area and 21,839 housing units in the City.¹ Between 2010 and 2020, the City’s housing stock grew by only 2.7 percent from 21,258 housing units. Between 2020 and 2040, the City’s total number of housing units is projected to increase to 22,830, a net increase of 991, or approximately 4.5 percent.²

In 2019, there were 21,852 households in the City.³ 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.

In 2010 Union City had a household size of 3.38, higher than the countywide household size of 2.70 but similar to other nearby jurisdictions. In 2020, the average household size in the City was 3.51, which is higher the countywide household size of 2.81 and also higher than the household size of all other incorporated cities in Alameda County.⁴

Employment

In 2020, there were 2,300 jobs in the Planning Area and 32,200 jobs in the City. Between 2010 and 2020, the City’s employment increased by 53.4 percent from 20,990 jobs in 2010. As shown in Table 3.9-2, between 2020 and 2040 the number of jobs in the City is projected to increase by

¹ California Department of Finance. May 2021. E-1 Population Estimates for Cities, Counties, and the State – January 1, 2020 and 2021. Available: <https://dof.ca.gov/Forecasting/Demographics/Estimates/e-1/>. Accessed: July 28, 2021.

² Association of Bay Area Governments. 2019. Projections 2040. Available: <http://projections.planbayarea.org/>. Accessed: July 28, 2021.

³ United States Census. July 1, 2019. QuickFacts: Union City, California. Available: <https://www.census.gov/quickfacts/fact/table/unioncitycalifornia,US/PST045219>. Accessed: July 28, 2021.

⁴ Ibid.

approximately 15.9 percent, growing from 32,200 to 37,333. In 2020, the unemployment rate was 8.7 percent in Union City⁵ This is largely attributable to the impacts of the COVID-19 pandemic, which significantly affected employment. In comparison, the 2019 Union City unemployment rate was 2.6 percent.

Approximately four 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.⁶ This means that some employees who live in the City work elsewhere and are out-commuting. This trend is expected to change by 2040, when the City is projected to have a jobs-housing ratio of 1.50.

REGULATORY SETTING

Federal

There are no federal regulations applicable to land use, population, and housing in the Planning Area. State, regional, and local regulations are discussed below.

State

California Government Code

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.

⁵ Ibid.

⁶ 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: July 28, 2021.

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 2050

The Metropolitan Transportation Commission (MTC), and Association of Bay Area Governments (ABAG) adopted Plan Bay Area 2050 in October 2021. Plan Bay Area 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. Plan Bay Area 2050 focuses on four key issues—the economy, the environment, housing and transportation—outlining 35 strategies for growth and investment through 2050 to make the Bay Area more equitable for all residents and more resilient in the face of unexpected challenges.

One of the main goals of Plan Bay Area is to reduce GHG emissions from cars and light-duty trucks through 2050 to meet State goals for 2035 and 2050 GHG emissions reduction targets. As described above, under SB 375, MPOs such as MTC must develop an SCS as part of the RTP. Plan Bay Area 2050 functions as both the SCS and the RTP for the region.

To reduce GHG emissions, Plan Bay Area 2050 promotes compact mixed-use infill development with a variety of housing types and densities within walkable/bikeable neighborhoods that are close to public transit, jobs, schools, shopping, parks, recreation, and other amenities. As part of the Plan Bay Area process, local jurisdictions voluntarily identified Priority Development Areas (PDAs) as appropriate locations for these types of neighborhoods. PDAs are locally nominated areas that are served by public transit and have been identified for high-density compact development. There are nearly 200 PDAs identified within Plan Bay Area 2050. PDAs are eligible for capital infrastructure funds, planning grants, and technical assistance. 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 2050 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. The core Station District area was designated as a Priority Development Area (PDAs) in Plan Bay Area 2040. The City applied and successfully expanded its PDA to reflect the boundaries of the Greater Station District shown in the Special Areas Element of the General Plan, which represents the boundaries of the Planning Area.

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 Draft 2023–2031 RHNA, ABAG has preliminarily determined that Union City's fair share of regional housing need for the 2023 to 2031 period would be 2,728 units. Approximately 862 of these units would be allocated as housing affordable to very low- and low-income households.⁷ The ABAG Executive Board adopted the Final RHNA Plan in December 2021.

Bay Area Rapid Transit (BART)

BART, which is the commuter rail service provider in the region that guide site and building design on BART-owned property. Relevant policies and guidelines are summarized below.

- **Transit Oriented Development Policy**—BART adopted the BART Transit Oriented Development (TOD) Policy in June 2016 and amended it in April 2020. The policy has the goals to support complete communities, reduce GHG emissions, increase BART ridership, capture value for BART, provide sustainable transportation choices, and increase affordable housing.
- **Transit Oriented Development Performance Targets**—Following the TOD Policy adoption, BART adopted the TOD Performance Targets in December 2016 to keep track of how well BART is implementing the TOD Policy. Performance measures include producing 7,000 residential units (35 percent affordable) and 1,000,000 square feet of office/commercial space by 2025 and 20,000 residential units (35 percent affordable) and 4,500,000 square feet of office/commercial space by 2040 on BART property.
- **Assembly Bill (AB 2923) Implementation**—AB 2923, enacted in 2018, requires the adoption of development zoning standards on BART-owned properties within one-half-mile of station entrances in Alameda, Contra Costa, and San Francisco counties. The following apply to future developments on the BART-owned properties in the Planning Area:
 - No minimum vehicle parking requirement
 - Maximum of 0.5 vehicle parking spaces per residential unit
 - Maximum of 1.6 vehicle parking spaces per 1,000 square feet of office space
 - Minimum of one secure bicycle parking space per unit
 - Shared or unbundled vehicle parking
 - Implementation of TDM measures to reduce the VMT generated by a development project by at least 20 percent

⁷ Association of Bay Area Governments. May 2021. Draft Regional Housing Needs Allocation (RHNA) Plan: San Francisco Bay Area, 2023-2031. Available: https://abag.ca.gov/sites/default/files/documents/2021-05/ABAG_2023-2031_Draft_RHNA_Plan.pdf. Accessed: July 26, 2021.

Local

Union City General Plan (UC 2040)

The UC 2040 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, Resource Conservation, and Special Areas. The 2040 General Plan's vision for the Planning Area is to "create a vibrant 24-hour Station District that serves as a regional destination and focal point of the city for the arts, culture, and entertainment, while accommodating residents that live, work, and gather in the community." UC 2040 includes a number of goals, policies, design standards and new land use designations in order to achieve this vision and support development in the Planning Area and throughout Union City. The potential growth associated with the 2040 General Plan is based on development assumptions/projections for residential and non-residential development for all land within Union City through the year 2040. Implementation of the 2040 General Plan is projected to result in 11,486 new residents, 18,758 new jobs, and construction of 4,330 residential units and 8,069,113 square feet of non-residential space citywide by 2040.

Housing Element

The 2015-2023 Housing Element is a component of Union City's General Plan, and is updated on an eight-year cycle. The Housing Element Sites Inventory identifies two vacant or underutilized sites within the Planning Area to accommodate the City's RHNA requirements for residential development: Site LI-1 (Block 2), located within the Core subarea, and Site PR-4, located within the Gateway subarea. A portion of the site is planned for the Quarry Lakes Roadway project. ABAG has determined that Union City's fair share of regional housing need for the 2023 to 2031 period would be 2,728 units. To ensure that housing is available to meet the needs of future residents under the Proposed Plan, the City will be updating its Housing Element to assess its supply of housing and provide policies and programs to ensure that the community continues to meet its fair share of regional housing needs.

Union City Municipal Code

The Union City Municipal Code contains many of the ordinances for the City of Union City. The Municipal Code is organized by chapters, articles, divisions, and sections, and includes the City's Zoning Ordinance (Chapter 18 of the Union City Municipal Code). The Municipal Code is updated as new ordinances are adopted by the City Council. Detailed zoning regulations—including permitted and conditional uses, and development regulations—including provisions related to building height, bulk, and massing—are directly integrated within the Union City Zoning Ordinance.

The City's Zoning Ordinance (Title 18 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, landscaping, and design criteria.

The purpose of the 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 (depending on ownership type), and requiring proportional in-lieu fees for housing developments that are six units or less.

On April 11, 2017, the City of Union City approved an Ordinance that added Chapter 5.50 "Residential Landlord and Tenant Relations" to the City's Municipal Code. The Ordinance regulates most residential rental units in the City and requires landlords to provide a specific reason for terminating a lease and prohibits landlords from engaging in specific harassment activity.

Impact Analysis

For the purposes of this EIR, a significant impact would occur if implementation of the proposed Plan would:

- Criterion 1: Physically divide an established community;**
- Criterion 2: 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;**
- Criterion 3: 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); or**
- Criterion 4: Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.**

METHODOLOGY AND ASSUMPTIONS

Potential impacts resulting from implementation of the Proposed Plan were evaluated based on relevant information from the planning and policy documents listed in the Regulatory Setting section of this chapter and in consideration of the proposed land use designations, diagrams, and policies.

RELEVANT PROPOSED PLAN GOALS AND POLICIES

Land Use

- G-LU-1 **Variety of Land Uses.** Enhance the Station District as a mixed-use area with a variety of housing types, employment generating uses and commercial uses including retail, restaurants and services.
- G-LU-2 **Multi-family Housing.** Provide a diverse range of multi-family housing opportunities.
- G-LU-3 **Walkable Destination.** Create a compact, walkable, pedestrian oriented District with connections to transit.
- P-LU-1 **Housing for all Income Levels.** Promote new residential development to provide housing for all income levels, with emphasis on affordable housing for low, very low, and extremely low incomes.
- P-LU-2 **Implement Affordable Housing Programs.** Continue to implement affordable housing programs as outlined in the most recently adopted Housing Element including but not limited to programs related to supporting, preserving and promoting affordable housing development and rehabilitation.
- P-LU-4 **Mix of For Sale and Rental.** Encourage a mix of for sale and rental housing units in the Station District.
- P-LU-5 **Diverse Housing Types.** Promote a diverse range of housing types to accommodate a variety of household types.
- P-LU-6 **Supportive Housing Amenities.** Facilitate opportunities to incorporate innovative design and program features into affordable housing developments, such as on-site health and human services, community gardens, car-sharing, and bike facilities. Support the development of projects that serve homeless and special needs populations.

The Core

- P-LU-13 **Mix of Uses.** Allow for a mix of uses to support a healthy jobs / housing balance and provide for both a day and nighttime population within the area.
- P-LU-14 **Integrate New Development.** Ensure land use patterns and design of new development projects are compatible with recent developments, such as Union Flats and Station Center, in terms of scale and massing.
- P-LU-15 **Community Gathering Spaces.** Ensure the provision and programming of community gathering spaces.

P-LU-16 **Public Spaces.** Maintain and enhance park and plaza spaces to meet the needs of the surrounding residents and employees.

Station East

P-LU-17 **Station East 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, research and development, advanced manufacturing) and 35 percent high-density residential uses including residential mixed-use developments with ground floor commercial along the City’s major thoroughfares.

P-LU-18 **New Connections.** Work with developers to provide a robust circulation system for all users including the provision of new streets with bicycle facilities and wide sidewalks, paseos, trails, including greenways where appropriate, and a pedestrian/bicycle connection over the Niles Subdivision to help foster connections, open spaces, and direct access to the Intermodal Station.

P-LU-19 **Green Spaces.** Encourage the development of a network of new and expanded park, plaza and open spaces throughout the Station East area.

P-LU-20 **New Employment Generating Uses.** Promote significant new employment generating uses within the area generally bounded by 7th Street, Bradford Way / Zwissig Way and the Niles subdivision. Encourage the investment in office uses that contribute to the existing business mix in order to establish a diversified and expanded employment base and to increase the daytime population, that will help to support businesses in the Core and the Marketplace subareas.

- Attract leading edge industries that provide good quality jobs with potential for career advancement.
- Ensure that new industrial and commercial buildings are well-designed with respect to architecture and finishes; provide amenities for employees and visitors, include pedestrian-friendly streetscape improvements, and thoughtfully designed public spaces. Site and building design shall minimize impacts, including but limited to, noise, odors, traffic, and aesthetics, on any surrounding residential uses.
- Allow for existing, legal conforming and nonconforming industrial uses to remain consistent with applicable Zoning Ordinance provisions or recorded development agreements.

The Marketplace

P-LU-21 **Walkable Destination.** Create a vibrant, walkable destination with community-serving and specialty-retail, dining, and entertainment uses, new streets, and plazas with a complementary mix of residential, office, and other uses.

P-LU-23 **Mix of Uses.** Ensure that new development contributes to a vibrant, walkable, mixed use area, which supports the following:

- A mix of small, local commercial businesses and large anchor stores, which, in part, meet the needs of local residents;
- Development of an indoor Public Market, which supports a variety of commercial uses and provides an opportunity for smaller, artisan businesses;
- Residential and office uses occupying buildings above the ground floor;
- Parking accommodated in a more innovative way. (e.g. parking structures, smaller parking lots distributed through the area);
- Buildings designed to create a pedestrian-scale and ambiance suitable for walking.

Gateway

P-LU-25 **Mix of Housing Types.** Support a mix of housing types including an “agri-hood” concept, where housing and on-site community facilities are integrated with agricultural uses, such as community gardens, that could be public or private.

P-LU-26 **Non-residential Uses.** Allow for the area east of Alvarado-Niles Road to include mixed-use residential and commercial uses.

P-LU-27 **Open Space Amenities.** New development shall provide both passive and active recreation areas and other open space opportunities as well as enhanced facilities for bicyclists and pedestrians.

P-LU-28 **Quarry Lakes Parkway.** The City shall facilitate construction of the Quarry Lakes Parkway and associated bicycle and pedestrian trails.

Civic Center

P-LU-29 **Focus on Improved Connections.** Encourage existing civic uses to become more cohesively integrated with the greater Station District, with new pedestrian and bicycle connections.

P-LU-30 **Public Facilities.** Seek funding to enhance existing public open spaces and facilities.

Mobility

G-M-4 **Transit Service.** Ensure frequent, safe, and reliable transit service within the Station District.

P-M-12 **Bus Stops.** Coordinate with AC Transit and UC Transit to identify and improve bus stops within the Station District. Improvements may consist of:

- Relocating bus stops to improve bus operations, such as relocating stops from the near-side to the far-side of signalized intersections and/or improving pedestrian access, such as relocating bus stops closer to signal-protected crossings.
- Providing bus stop amenities, such as bus stop signs, wayfinding maps, bench and/or shelter pursuant to *AC Transit Multimodal Corridor Guidelines*.
- Requiring projects that develop or redevelop sites with existing and/or proposed bus stops along their frontage(s) to relocate and/or upgrade bus stops consistent with this policy.

P-M-13 **Bicycle Access at Intermodal Station.** Coordinate with BART to ensure adequate bicycle parking at the Intermodal Station and that the Intermodal Station provides safe and convenient pedestrian and bicycle connections that connect to the adjacent streets and paths.

P-M-14 **Mobility Hubs.** Coordinate with BART and Alameda CTC on implementing a mobility hub at the Intermodal Station, which would integrate various transportation services and amenities to offer convenient first and last-mile non-automobile connections at the Intermodal Station.

IMPACTS

Impact 3.9-1 **Development under the Proposed Plan would not physically divide an established community. (No Impact)**

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 Plan does not involve the construction of a linear feature or other barrier as described above and would not remove any means of access, but instead would increase access throughout the Planning Area, as demonstrated in the Plan objectives (listed in Chapter 2, Project Description), which support the idea of creating physical connections within the Planning Area and with the surrounding established community. The Proposed Plan includes features specifically aimed at enhancing connectivity within the Planning Area and improving linkages between subareas and the Union City Intermodal Station, including multi-modal circulation improvements and parks, open spaces, and plazas that welcome community use and encourage social connections between people and neighborhoods.

The Proposed Plan also envisions the creation of a fine-grained street grid, transportation improvements, and includes policies to promote multi-modal accessibility through the expansion of bicycle and pedestrian networks within new developments that promote connections to open space and transit (policies P-LU-5, P-LU-18, P-LU-19, P-M-12, P-M-13), all of which would enhance connectivity within the Planning Area and improve linkages with surrounding areas. Specifically, the Proposed Plan would create an east-west central spine that links the Marketplace,

Intermodal Station, the Core, and Station East, prioritizing pedestrian and bicycle connections. Additionally, the Proposed Plan would establish an interconnected network of streets, sidewalks, bicycle lanes, pathways, and multi-use trails that knit the district together and enable people to easily and directly traverse the area on foot or bicycle. By improving connectivity and land use consistency around the Union City Intermodal Station, the Proposed Plan would make it easier for residents and employees to travel within the Planning Area and beyond.

Therefore overall, because the Proposed Plan would not introduce any physical barriers to the Planning Area and would generally improve connectivity for all users, including vehicles, bicyclists, and pedestrians, it would result in no impact with respect to physically dividing an existing community.

Mitigation Measures

None required.

Impact 3.9-2 Development under the Proposed Plan 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. (No Impact)

Regional Plans

Plan Bay Area is the regional blueprint for development and conservation in the nine county San Francisco Bay Area. As discussed in the Regulatory Setting, both Plan Bay Area 2040 and its update, Plan Bay Area 2050, promote compact, mixed-use, infill development within walkable/bikeable neighborhoods close to public transit, jobs, schools, shopping, parks, recreation, and other amenities in order to reduce GHG emissions, increase housing opportunities, promote equity and diversity, focus development within the existing urban footprint, increase access to affordable housing, increase employment opportunities, and increase non-automotive mode share and the effectiveness of the transportation system. Plan Bay Area 2050 was adopted in October 2021, and continues to support the goals of Plan Bay Area 2040 while identifying a path to make the Bay Area more equitable for all residents and more resilient in the face of unexpected challenges. Plan Bay Area 2050 seeks to focus development primarily in “growth geographies” that include priority development areas (PDAs), which are areas near existing job centers and frequent transit that are locally-identified for growth; priority production areas, which are areas identified for industrial and manufacturing job growth; transit-rich areas, where at least 50 percent of the area is within an existing or planned high frequency transit source; and high-resource areas, which are well-resourced areas with access to schools, jobs, open space, and baseline transit service. The Core Station District subarea was designated as a PDA in Plan Bay Area 2040. The City applied in 2020 to expand its PDA to mirror the boundaries of the Greater Station District shown in the Special Areas Element of the General Plan, which represents the boundaries of the Planning Area. Under the Proposed Plan, the Core subarea is envisioned as a major transit hub, business center, and residential community with a high intensity of uses, well connected to the rest of the city. Proposed Plan policies specific to the Core subarea would allow for a mix of high-intensity commercial and residential uses as well as community gathering spaces which are well connected to the Union City

Intermodal Station in order to support this vision and the overall intent of a PDA (policies P-LU-13, P-LU-14, P-LU-15, P-LU-16).

Table 3.9-3 presents the Plan Bay Area 2050 strategies that are applicable to the analysis of land use, population, and housing in this chapter and how the Proposed Plan complies with each of the strategies. Consistency with Plan Bay Area 2050 strategies not listed in Table 3.9-3 are further evaluated in other chapters of this EIR. Table 3.9-3 shows that the Proposed Project generally would not disrupt or hinder implementation of any Plan Bay Area 2050 strategies. Accordingly, development under the Proposed Plan would not fundamentally conflict with Plan Bay Area 2050 and would result in a less than significant impact.

Table 3.9-3: Plan Bay Area 2050 Strategies Applicable to the Proposed Plan

<i>Strategy</i>	<i>Incorporation into Proposed Plan Policies</i>
Housing Strategies	
H3. Allow a greater mix of housing densities and types in Growth Geographies.	<p>G-LU-2 Provide a diverse range of multi-family housing opportunities.</p> <p>P-LU-1 Promote new residential development to provide housing for all income levels, with emphasis on affordable housing for low, very low, and extremely low incomes.</p> <p>P-LU-4 Encourage a mix of for sale and rental housing units in the Station District.</p> <p>P-LU-5 Promote a diverse range of housing types to accommodate a variety of household types.</p> <p>See policies under H1, as well as the following:</p> <p>G-LU-01 Enhance the Station District as a mixed-use area with a variety of housing types, employment generating uses and commercial uses including retail, restaurants and services.</p> <p>P-LU-13 The Core – Allow for a mix of uses to support a healthy jobs / housing balance and provide for both a day and nighttime population within the area.</p> <p>P-LU-25 The Gateway – Support a mix of housing types including an “agri-hood” concept, where housing and on-site community facilities are integrated with agricultural uses, such as community gardens, that could be public or private.</p>
H4. Build adequate affordable housing to ensure homes for all.	See policies under H1.
H5. Integrate affordable housing into all major housing projects.	See policies under H1.

Table 3.9-3: Plan Bay Area 2050 Strategies Applicable to the Proposed Plan

<i>Strategy</i>	<i>Incorporation into Proposed Plan Policies</i>
<p>H6. Transform aging malls and office parks into neighborhoods.</p>	<p>P-LU-13 The Core – Allow for a mix of uses to support a healthy jobs / housing balance and provide for both a day and nighttime population within the area.</p> <p>P-LU-17 Station East – 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, research and development, advanced manufacturing) and 35 percent high-density residential uses including residential mixed-use developments with ground floor commercial along the City’s major thoroughfares.</p> <p>P-LU-21 The Marketplace – Create a vibrant, walkable destination with community-serving and specialty-retail, dining, and entertainment uses, new streets, and plazas with a complementary mix of residential, office, and other uses.</p> <p>P-LU-23 The Marketplace - Ensure that new development contributes to a vibrant, walkable, mixed use area, which supports the following:</p> <ul style="list-style-type: none"> - A mix of small, local commercial businesses and large anchor stores, which, in part, meet the needs of local residents; - Development of an indoor Public Market, which supports a variety of commercial uses and provides an opportunity for smaller, artisan businesses; - Residential and office uses occupying buildings above the ground floor; - Parking accommodated in a more innovative way. (e.g. parking structures, smaller parking lots distributed through the area); - Buildings designed to create a pedestrian-scale and ambiance suitable for walking. <p>P-LU-28 The Gateway – The City shall facilitate construction of the Quarry Lakes Parkway and associated bicycle and pedestrian trails.</p>

Table 3.9-3: Plan Bay Area 2050 Strategies Applicable to the Proposed Plan

Strategy	Incorporation into Proposed Plan Policies
Economic Strategies	
<p>EC4. Allow greater commercial densities in Growth Geographies.</p>	<p>Station East - Promote significant new employment generating uses within the area generally bounded by 7th Street, Bradford Way / Zwissig Way and the Niles subdivision. Encourage the investment in office uses that contribute to the existing business mix in order to establish a diversified and expanded employment base and to increase the daytime population, that will help to support businesses in the Core and the Marketplace subareas.</p> <ul style="list-style-type: none"> - Attract leading edge industries that provide good quality jobs with potential for career advancement. - Ensure that new industrial and commercial buildings are well-designed with respect to architecture and finishes; provide amenities for employees and visitors, include pedestrian-friendly streetscape improvements and thoughtfully designed public spaces. Site and building design shall minimize impacts, including but limited to, noise, odors, traffic and aesthetics, on any surrounding residential uses. - Allow for existing, legal conforming and nonconforming industrial uses to remain consistent with applicable Zoning Ordinance provisions or recorded development agreements. <p>P-LU-23 The Marketplace - Ensure that new development contributes to a vibrant, walkable, mixed use area, which supports the following:</p> <ul style="list-style-type: none"> - A mix of small, local commercial businesses and large anchor stores, which, in part, meet the needs of local residents; - Development of an indoor Public Market, which supports a variety of commercial uses and provides an opportunity for smaller, artisan businesses; - Residential and office uses occupying buildings above the ground floor; - Parking accommodated in a more innovative way. (e.g., parking structures, smaller parking lots distributed through the area); - Buildings designed to create a pedestrian-scale and ambiance suitable for walking.
<p>EC5. Provide incentives to employers to shift jobs to housing-rich areas well served by transit.</p>	<p>See policies under EC4.</p>

Source: Plan Bay Area 2050, 2021; Dyett & Bhatia, 2021.

As shown in Table 3.9-3, the Proposed Plan would support the key objectives of Plan Bay Area throughout the Planning Area, including the goal of fostering housing and jobs in proximity to transit in order to reduce VMT and GHG emissions. Therefore, the Proposed Plan would not conflict with Plan Bay Area, and there would be no impact.

Local Plans and Regulations

Local land use plans and regulations that cover the Planning Area include the City of Union City 2040 General Plan and the Municipal Code. As the Proposed Plan is an update to existing local policies and land use designations, there are cases in which it differs from existing standards and regulations. However, the Proposed Plan's policies and designations are generally consistent with the General Plan's land use policies. Amendments to the General Plan and Municipal Code would be adopted together with the Proposed Plan to ensure consistency with the Proposed Plan. The Union City 2040 General Plan envisions the Planning Area as a world-class, transit-oriented community with new retail, public amenities, and high-density housing and job centers, all linked by bicycle and pedestrian facilities. The General Plan establishes the following goals for the Planning Area and Union City: to provide a land use framework that promotes transit-oriented development and walkable communities and reduces reliance on cars (General Plan Land Use Element Goal LU-2); 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 (General Plan Land Use Element Goal LU-2); and provide for a continuous system of open spaces for the preservation, enhancement and protection of open space land (General Plan Resource Conservation Element Goal RC-1). The Proposed Plan builds upon these goals, and includes multiple goals and policies that would support realization of the General Plan vision for the Planning Area. The Proposed Plan includes multiple policies that encourage mixed-use, compact development and pedestrian- and bicycle-friendly streets within the Planning Area. The Proposed Plan focuses on infill development and development of underutilized and vacant areas. Further, the Proposed Plan would provide for a net increase in jobs and housing units in the Planning Area in a mixed-use configuration intended to reduce reliance on automobiles. The Planning Area is served by the Union City Intermodal Station, which provides regional transit options via BART, AC Transit, the Dumbarton Express, and Union City Transit. The Proposed Plan requires the City to coordinate with local and regional transit providers to increase access to transit options (policies P-M-12, PM-13, P-M-14).

The Proposed Plan retains the overall land use framework of the General Plan, with some targeted changes to promote economic development and appropriate residential and commercial infill development. The Proposed Plan's land use designations (see Figure 2.4-1) are generally consistent with those in the General Plan, although they differ in some instances. In these limited exceptions, the Proposed Plan's designations differ from the General Plan in order to more accurately reflect either the existing zoning or current use on the property. While the Proposed Plan does include some targeted changes to land use designations, these changes are generally consistent with the General Plan vision of supporting transit-oriented residential and commercial development, encouraging new retail opportunities, and preserving open space.

Development under the Union City 2040 General Plan is projected to result in 11,486 new residents, 4,330 housing units, and 18,758 new jobs in Union City by 2040. Within the Planning Area, development under the 2040 General Plan is projected to result in approximately 3,200 new

housing units and 14,980 new jobs. Development associated with implementation of the Proposed Plan and construction of approved pipeline projects is projected to result in approximately 9,400 new residents, 3,930 new housing units, and 15,900 new jobs. Therefore, buildout of the Proposed Plan would result in a substantially similar level of growth as anticipated under the 2040 General Plan. Several new zoning districts to implement the Proposed Plan and detailed zoning regulations—including permitted and conditional uses, and development regulations—including provisions related to building height, bulk, and massing—are proposed to be directly integrated within the Union City Municipal Code, Chapter 18: Zoning. Therefore, given that the Proposed Plan is consistent with the General Plan’s goals for the planning area and includes provisions to update the General Plan and Zoning Ordinance consistent with State law in order to ensure consistency as discussed above, there would be no impact from implementation of the Proposed Plan related to conflicts with local plans and regulations.

Mitigation Measures

None required.

Impact 3.9-3 Development under the Proposed Plan would not 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). (*Less than Significant*)

Implementation of the Proposed Plan could induce substantial population growth directly if its proposed land uses and development standards would provide for significant population or employment growth above projected levels, or indirectly if infrastructure extensions would encourage significant numbers of people to move to the area.

As discussed under Impact 3.9-2, development under the Union City 2040 General Plan is projected to result in 11,486 new residents, 4,330 housing units, and 18,758 new jobs in Union City by 2040. Within the Planning Area, the 2040 General Plan is projected to result in approximately 3,200 new housing units and 14,980 new jobs. Development associated with implementation of the Proposed Plan and construction of approved pipeline projects is projected to result in approximately 9,400 new residents, 3,930 new housing units, and 15,900 new jobs. Therefore, buildout of the Proposed Plan would result in a substantially similar level of growth as anticipated under the 2040 General Plan.

Therefore, given that the Proposed Plan’s direct and indirect projected population growth is commensurate with citywide growth projections, the Proposed Plan would not induce substantial unplanned population growth in the Planning Area and the impact would be less than significant.

Mitigation Measures

None required.

Impact 3.9-4 Development under the Proposed Plan would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. (*Less than Significant*)

There are 1,720 existing housing units in the Planning Area, all of which are planned to remain. Additionally, the Proposed Plan envisions the construction of 2,520 new units in addition to 1,410 residential units associated with pipeline projects, providing additional housing options. The location of proposed new housing is shown in Figure 2.4-2 of the Proposed Plan. In total, the Proposed Plan would result in 3,930 new housing units, exceeding the amount which was projected by ABAG in its Plan Bay Area 2040 growth forecasts; the new housing will accommodate existing Union City residents and welcome new residents. All new housing is anticipated to be built on vacant land or underutilized existing commercial and industrial land. It is possible that buildout of the Proposed Plan would result in the demolition of two existing residences; however, buildout would result in a substantially higher amount of new housing of different types and price points than exists now, which would be accessible to people of all ages and backgrounds.

Indirect displacement resulting from development within the Planning Area could potentially occur through the process of neighborhood economic and demographic change in an existing area, which often results from real estate investment and increased demand from higher-income residents. The City's Housing Element and Municipal Code contain provisions to protect against the indirect displacement of housing units and people in Union City, including the Planning Area. The Housing Element's provisions for creating an even distribution of new housing at all levels of affordability, The City has adopted an Affordable Housing Ordinance which requires 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. The majority of new residential development that would occur under the Proposed Plan would be multi-family and mixed use, and would therefore be subject to the Affordable Housing Ordinance to ensure that up to 15 percent of new residential development in the Planning Area would be accessible to residents of all income levels.

Furthermore, the Proposed Plan also includes policies to reduce potential displacement and maximize affordable housing options. Goals and policies in the Proposed Plan aim to provide significant new residential development to provide a diversity of housing types for all income levels and household types, with emphasis on affordable housing for students, persons with disabilities, seniors, and low-income households (goals G-LU-01, G-LU-02; policies P-LU-01, P-LU-03, P-LU-04, P-LU-05, P-LU-19, P-LU-20). Policy P-LU-01 also promotes implementation of affordable housing programs outlined in the Housing Element and inclusion of a wide range of unit sizes to accommodate various household sizes. Implementation of these policies would ensure that development under the Proposed Plan would specifically serve existing residents at risk of gentrification and displacement's negative effects by providing affordable housing that is accessible to a variety of income levels as well as health and human services for homeless populations, elderly residents, and undocumented residents, rather than simply providing new housing that can only be accessed by individuals of a higher income level.

Adherence to existing regulations and implementation of policies and actions in the Proposed Plan would prevent the indirect displacement of substantial numbers of residents or housing units to the maximum extent practicable. Overall, the Proposed Plan would not directly or indirectly displace substantial numbers of people or housing units, and any potential indirect impacts would be addressed by existing City policies and provisions for affordable housing, as well as policies in the Proposed Plan; this impact would be less than significant.

Mitigation Measures

None required.

3.10 Noise

This section assesses potential environmental impacts related to noise from future development under the Proposed Plan, including those associated with noise standards, groundborne vibration, ambient noise levels, and airport noise. The section describes the characteristics, measurement, and physiological effects of noise and existing sources of noise in the Planning Area, as well as relevant federal, State, and local regulations and programs.

There were multiple comments on the Notice of Preparation related to noise. The local organization Save Union Hills stated that implementation of the Proposed Plan and construction of the Quarry Lakes Parkway project would create more noise in Union City. Two members of the public echoed this concern. Representatives for and members of the Purple Lotus Temple, a Buddhist temple located near the Planning Area in the City of Fremont, provided feedback that the Proposed Plan and Quarry Lakes Parkway project would cause noise pollution, affecting the operations and setting of the Temple. Impacts of the Proposed Plan on the ambient noise environment are discussed below. The Quarry Lakes Parkway project has undergone separate environmental review and impacts of the project related to noise are not applicable to the discussion found in this EIR.

Environmental Setting

PHYSICAL SETTING

Noise

Noise Characteristics and Measurement

Because of the technical nature of noise and vibration impacts, a brief overview of basic noise principals and descriptors is provided below.

Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air). Noise is generally defined as unwanted sound (i.e., loud, unexpected, or annoying sound). Acoustics is defined as the physics of sound. In acoustics, the fundamental scientific model consists of a sound (or noise) source, a receiver, and the propagation path between the two. The loudness of the noise source and obstructions or atmospheric factors affecting the propagation path to the receiver determines the sound level and characteristics of the noise perceived by the receiver. Acoustics addresses primarily the propagation and control of sound.

Sound, traveling in the form of waves from a source, exerts a sound pressure level (referred to as sound level) that is measured in decibels (dB), which is the standard unit of sound amplitude measurement. The dB scale is a logarithmic scale that describes the physical intensity of the pressure vibrations that make up any sound, with 0 dB corresponding roughly to the threshold of human hearing and 120 to 140 dB corresponding to the threshold of pain. Pressure waves traveling through air exert a force registered by the human ear as sound.

Sound pressure fluctuations can be measured in units of hertz (Hz), which correspond to the frequency of a particular sound. Typically, sound does not consist of a single frequency, but rather a broad band of frequencies varying in levels of magnitude, with audible frequencies of the sound spectrum ranging from 20 to 20,000 Hz. The typical human ear is not equally sensitive to this frequency range. As a consequence, when assessing potential noise impacts, sound is measured using an electronic filter that deemphasizes the frequencies below 1,000 Hz and above 5,000 Hz in a manner corresponding to the human ear's decreased sensitivity to these extremely low and extremely high frequencies. This method of frequency filtering or weighting is referred to as A-weighting, expressed in units of A weighted decibels (dBA), which is typically applied to community noise measurements. Some representative common outdoor and indoor noise sources and their corresponding A-weighted noise levels are shown in Table 3.10-1.

An individual's noise exposure is a measure of noise over a period of time; a noise level is a measure of noise at a given instant in time. However, noise levels rarely persist at that level over a long period of time. Rather, community noise varies continuously over a period of time with respect to the sound sources contributing to the community noise environment. Community noise is primarily the product of many distant noise sources, which together constitute a relatively stable background noise exposure, with many of the individual contributors being unidentifiable. The background noise level changes throughout a typical day, but does so gradually, corresponding to the addition and subtraction of distant noise sources, such as changes in traffic volume. What makes community noise variable throughout a day, besides the slowly changing background noise, is the addition of short-duration, single-event noise sources (e.g., aircraft flyovers, motor vehicles, sirens), which are readily identifiable to the individual.

Table 3.10-1: Typical Noise Levels in the Environment

<i>Source of Noise</i>	<i>A-Weighted Sound Pressure Level in Decibels</i>
Civil Defense Siren (100 feet in distance between source and listener)	130
Jet Takeoff (200 feet in distance between source and listener)	129
Riveting Machine	115
Rock Music Band	110
Piledriver (50 feet in distance between source and listener)	105
Ambulance Siren (100 feet in distance between source and listener)	100
Boiler Room	90
Printing Press Plant	89
Freight Cars (50 feet in distance between source and listener)	88
Garbage Disposal in the Home	85
Pneumatic Drill (50 feet in distance between source and listener)	80
Inside Sports Car: 50 mph	79
Vacuum Cleaner (10 feet in distance between source and listener)	69
Data Processing Center	65
Department Store	61
Speech (1 foot in distance between source and listener)	60
Auto Traffic near Freeway	58
Typical Minimum Daytime Levels – Residential Areas	55
Private Business Office	52
Large Transformer (200 feet in distance between source and listener)	49
Light Traffic (100 feet in distance between source and listener)	48
Average Residence	42
Typical Minimum Nighttime Levels – Residential Areas	41
Soft Whisper	30
Rustling Leaves	21
Recording Studio	20
Mosquito	10

Notes:

1. 10 decibels is the Threshold of Hearing
2. 120 decibels is the Threshold of Pain

These successive additions of sound to the community noise environment change the community noise level from instant to instant, requiring the noise exposure to be measured over periods of time to legitimately characterize an existing community noise environment. The following noise

descriptors are used to characterize environmental noise levels over time, which are applicable to the Project.

- L_{eq} : The equivalent sound level over a specified period of time, typically, one hour (L_{eq}). The L_{eq} may also be referred to as the average sound level.
- L_{max} : The maximum, instantaneous noise level experienced during a given period of time.
- L_{min} : The minimum, instantaneous noise level experienced during a given period of time.
- L_x : The noise level exceeded a percentage of a specified time period. For instance, L_{50} and L_{90} represent the noise levels that are exceeded 50 percent and 90 percent of the time, respectively.
- L_{dn} : The average A-weighted noise level during a 24-hour day, obtained after an addition of 10 dB to measured noise levels between the hours of 10:00 p.m. to 7:00 a.m. to account for nighttime noise sensitivity. The L_{dn} is also termed the day-night average noise level (DNL).
- CNEL: The Community Noise Equivalent Level (CNEL) is the average A-weighted noise level during a 24-hour day that includes an addition of 5 dB to measured noise levels between the hours of 7:00 a.m. to 10:00 p.m. and an addition of 10 dB to noise levels between the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively.

Physiological Effects of Noise

Noise is generally loud, unpleasant, unexpected, or undesired sound that is typically associated with human activity that is a nuisance or disruptive. The effects of noise on people can be placed into four general categories:

1. Subjective effects (e.g., dissatisfaction, annoyance)
2. Interference effects (e.g., communication, sleep, and learning interference)
3. Physiological effects (e.g., startle response)
4. Physical effects (e.g., hearing loss)

Although exposure to high noise levels has been demonstrated to cause physical and physiological effects, the principal human responses to typical environmental noise exposure are related to subjective effects and interference with activities. Interference effects interrupt daily activities and include interference with human communication activities, such as normal conversations, watching television, telephone conversations, and interference with sleep. Sleep interference effects can include both awakening and arousal to a lesser state of sleep (Caltrans, 2013a).

With regard to the subjective effects, the responses of individuals to similar noise events are diverse and influenced by many factors, including the type of noise, the perceived importance of the noise, the appropriateness of the noise to the setting, the duration of the noise, the time of day and the type of activity during which the noise occurs, and individual noise sensitivity. Overall, there is no completely satisfactory way to measure the subjective effects of noise, or the corresponding reactions of annoyance and dissatisfaction on people. A wide variation in individual thresholds of

annoyance exists, and different tolerances to noise tend to develop based on an individual's past experiences with noise. Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted (i.e., comparison to the ambient noise environment). In general, the more a new noise level exceeds the previously existing ambient noise level, the less acceptable the new noise level will be judged by those hearing it. With regard to increases in A-weighted noise level, the following relationships generally occur (Caltrans, 2013a):

- Except in carefully controlled laboratory experiments, a change of 1 dBA in ambient noise levels cannot be perceived;
- Outside of the laboratory, a 3 dBA change in ambient noise levels is considered to be a barely perceivable difference;
- A change in ambient noise levels of 5 dBA is considered to be a readily perceivable difference; and
- A change in ambient noise levels of 10 dBA is subjectively heard as a doubling of the perceived loudness.

These relationships occur in part because of the logarithmic nature of sound and the decibel scale. The human ear perceives sound in a non-linear fashion; therefore, the dBA scale was developed. Because the dBA scale is based on logarithms, two noise sources do not combine in a simple additive fashion, but rather logarithmically. Under the dBA scale, a doubling of sound energy corresponds to a 3 dBA increase. In other words, when two sources are each producing sound of the same loudness, the resulting sound level at a given distance would be approximately 3 dBA higher than one of the sources under the same conditions. For example, if two identical noise sources produce noise levels of 50 dBA, the combined sound level would be 53 dBA, not 100 dBA. Under the dB scale, three sources of equal loudness together produce a sound level of approximately 5 dBA louder than one source, and ten sources of equal loudness together produce a sound level of approximately 10 dBA louder than the single source (Caltrans, 2013a).

Noise Attenuation

When noise propagates over a distance, the noise level reduces with distance at a rate that depends on the type of noise source and the propagation path. Noise from a localized source (i.e., point source) propagates uniformly outward in a spherical pattern, referred to as "spherical spreading." Stationary point sources of noise, including stationary mobile sources such as idling vehicles, attenuate (i.e., reduce) at a rate between six dBA for acoustically "hard" sites and 7.5 dBA for "soft" sites for each doubling of distance from the reference measurement, as their energy is continuously spread out over a spherical surface (e.g., for hard surfaces, 80 dBA at 50 feet attenuates to 74 at 100 feet, 68 dBA at 200 feet, etc.). Hard sites are those with a reflective surface between the source and the receiver, such as asphalt or concrete surfaces or smooth bodies of water. No excess ground attenuation is assumed for hard sites and the reduction in noise levels with distance (drop-off rate) is simply the geometric spreading of the noise from the source. Soft sites have an absorptive ground surface, such as soft dirt, grass, or scattered bushes and trees, which in addition to geometric spreading, increase the ground attenuation value by 1.5 dBA (per doubling distance) (Caltrans, 2013a).

Roadways and highways consist of several localized noise sources on a defined path, and hence are treated as “line” sources, which approximate the effect of several point sources. Noise from a line source propagates over a cylindrical surface, often referred to as “cylindrical spreading.” Line sources (e.g., traffic noise from vehicles) attenuate at a rate between 3 dBA for hard sites and 4.5 dBA for soft sites for each doubling of distance from the reference measurement (Caltrans, 2013a). Therefore, noise due to a line source attenuates less with distance than that of a point source with increased distance.

Additionally, receptors located downwind from a noise source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels. Atmospheric temperature inversion (i.e., increasing temperature with elevation) can increase sound levels at long distances (e.g., more than 500 feet). Other factors such as air temperature, humidity, and turbulence can also have significant effects on noise levels (Caltrans, 2013a).

Noise-Sensitive Receptors

Many land uses are considered sensitive to noise. Noise-sensitive receptors are land uses associated with indoor and/or outdoor activities that may be subject to stress and/or significant interference from noise, such as residential dwellings, transient lodging, dormitories, hospitals, educational facilities, and libraries. Industrial and commercial land uses are generally not considered sensitive to noise. Special Status species and their habitat may also be considered noise-sensitive. Existing noise-sensitive receptors within the Planning Area include single- and multi-family residential housing, schools, parks, and libraries.

Existing Noise Conditions and Sources

The predominant source of noise in the Planning Area, as in most communities, is motor vehicles on roadways. Motor vehicle noise is of concern because it is characterized by a high number of individual events, which often create a sustained noise level, and because of its proximity to noise-sensitive uses. Roadways with the highest traffic volumes and speeds produce the highest noise levels.

Within and in the vicinity of the Planning Area, the BART system runs parallel to State Route 238 through Union City, and the Union Pacific Railroad runs through Union City in two separate north-south paths: the Niles Subdivision UPRR tracks, which cross Decoto Road just west of the Planning Area and east of Cheeves Way, and the Oakland Subdivision UPRR tracks, which cross Decoto Road west of 11th Street and east of the elevated BART tracks. Rail activity is a frequent noise source in the area 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 include 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.

The Union City BART station is served by two BART lines: Richmond- Berryessa/North San José and Daly City- Berryessa/North San José. As of August 2021, the Richmond-Berryessa/North San José line operates as described below.¹

- Every 15 minutes from 5:00 a.m. to 9:00 p.m. on weekdays
- Every 30 minutes from 9:00 p.m. to 1:00 a.m. on weekdays
- Every 30 minutes from 6:30 a.m. to 1:00 a.m. on Saturdays
- Every 30 minutes from 8:00 a.m. to 10:00 p.m. on Sundays

The Daly City- Berryessa/North San José line operates as described below.

- Every 15 minutes from 5:00 a.m. to 8:00 p.m. on weekdays
- Every 30 minutes from 6:00 a.m. to 7:40 p.m. on Saturdays
- No operation on Sundays

There are also occasional aircraft overflights consisting of both large and small aircraft heading to and from Oakland International Airport and Hayward Executive Airport. While these sources contribute to the overall noise environment within the Planning Area, they are not major noise sources when compared to noise generated by roadways because train trips occur at a lower frequency than traffic on roadways.

The Planning Area does not have major stationary sources of noise, such as large factories. While there are no industrial plants or factories that significantly affect noise levels in the Planning Area, construction, heating and cooling equipment, truck loading, and recreational activities contribute to the Planning Area's overall noise environment.

Ground Vibration

Characterization and Measurement

While sound is the transmission of energy through the air, groundborne vibration is the transmission of energy through the ground or other solid medium and is perceived by humans as motion (of the ground, floor, or building). Vibrations can also generate noise by transmitting energy through the air.

Groundborne vibration can be quantified in two main ways. One commonly used descriptor is PPV, or Peak Particle Velocity. As seismic waves travel outward from a vibration source, they cause rock and soil particles 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). This type of vibration will be discussed in more detail below under Construction Vibration.

¹ BART. BART Schedules, August 2021. <https://www.bart.gov/schedules/pdf>. Accessed November 2021.

Groundborne vibration can also be quantified by the root-mean-square (RMS) velocity amplitudes, which can be useful for assessing human annoyance. The RMS amplitude is expressed in terms of the velocity level in decibel units (VdB). The background vibration velocity level in residential areas is usually around 50 VdB or lower. The vibration velocity level threshold of perception for humans is approximately 65 VdB. Most perceptible indoor vibration is caused by sources within buildings, such as the operation of mechanical equipment, movement of people, or the slamming of doors. Typical outdoor sources of perceptible groundborne vibration are heavy construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the groundborne vibration from traffic is rarely perceptible.

Table 3.10-2 summarizes the typical groundborne vibration velocity levels and average human response to vibration that may be anticipated when a person is at rest in quiet surroundings. If the person is engaged in any type of physical activity, vibration tolerance increases considerably. The duration of the event has an effect on human response, as does its daily frequency of occurrence. Generally, as the duration and frequency of occurrence increase, the potential for adverse human response increases.

Groundborne noise is a secondary component of groundborne vibration. When a building structure vibrates, noise is radiated into the interior of the building. Typically, this is a low-frequency sound that can be perceived as a low rumble. The magnitude of the sound depends on the frequency characteristic of the vibration and the manner in which the room surfaces in the building radiate sound. Groundborne noise is quantified by the A-weighted sound level inside the building. The sound level accompanying vibration is generally 25 to 40 dBA lower than the vibration velocity level in VdB. Groundborne vibration levels of 65 VdB can result in groundborne noise levels of up to 40 dBA, which can disturb sleep. Groundborne vibration levels of 85 VdB can result in groundborne noise levels of up to 60 dBA, which can be annoying to daytime noise-sensitive land uses such as schools (Federal Transit Administration, 2006).

Construction Vibration

As described above, vibration resulting from the operation of heavy construction equipment is often reported in PPV, which is the rate or velocity, in inches per second, at which rock and soil particles oscillate as seismic waves travel outward from a vibration source.

The operation of heavy construction equipment, particularly pile driving equipment and other impact devices (e.g., pavement breakers), creates seismic waves that radiate along the surface of and downward into the ground. 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. Variations in geology and distance result in different vibration levels containing different frequencies and displacements. In all cases, vibration amplitudes decrease with increasing distance.

Table 3.10-2: Typical Levels of Groundborne Vibration

<i>Human or Structural Response</i>	<i>Vibration Velocity Level (VdB)</i>	<i>Typical Sources (50 feet from source)</i>
Threshold for minor cosmetic damage to fragile buildings	—100—	Blasting from construction project Bulldozer or heavy-tracked construction equipment
Difficulty in reading computer screen	—90—	Upper range of commuter rail
Threshold for residential annoyance for occasional events (e.g., commuter rail)	—80—	Upper range of rapid transit
Threshold for residential annoyance for frequent events (e.g., rapid transit)	—70—	Typical commuter rail Bus or truck over bump
Approximate threshold for human perception of vibration; limit for vibration-sensitive equipment	—60—	Typical rapid transit Typical bus or truck on public road
	—50—	Typical background vibration

Source: Federal Transit Administration, 2006.

Perceptible groundborne vibration is generally limited to areas within a few hundred feet of construction activities. Vibration amplitude attenuates over distance and is a complex function of how energy is imparted into the ground and the soil or rock conditions through which the vibration is traveling. The following equation is used to estimate the vibration level at a given distance for typical soil conditions (Federal Transit Administration, 2006). PPV_{ref} is the reference PPV at 25 feet (Table 3.4-46-5).

$$PPV = PPV_{ref} \times (25/Distance)^{1.5}$$

Table 3.10-3 summarizes typical vibration levels generated by construction equipment (Federal Transit Administration, 2006) at the reference distance of 25 feet and other distances as determined using the attenuation equation above.

Tables 3.10-4 and 3.10-5 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.

Table 3.10-3: Vibration Source Levels for Construction Equipment

<i>Equipment</i>	<i>PPV at 25 Feet</i>	<i>PPV at 50 Feet</i>	<i>PPV at 75 Feet</i>	<i>PPV at 100 Feet</i>	<i>PPV at 175 Feet</i>
Pile driver (impact) ^a	0.65	0.230	0.125	0.081	0.035
Pile driver (sonic/vibratory) ^a	0.65	0.230	0.125	0.081	0.035
Hoe ram or large bulldozer	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

Note:

a. The Caltrans Transportation and Construction Vibration Guidance Manual (Caltrans 2013b) is used as the source for vibration from a vibratory pile driver.

Source: Federal Transit Administration, 2006.

Table 3.10-4: Vibration Damage Potential Threshold Criteria Guidelines

<i>Structure and Condition</i>	<i>Maximum PPV (inches/second)</i>	
	<i>Transient Sources</i>	<i>Continuous/Frequent Intermittent Sources</i>
Extremely fragile historic buildings, ruins, ancient monuments	0.1	0.1
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.3
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.

PPV = peak particle velocity.

Source: California Department of Transportation 2013b.

Table 3.10-5: Vibration Annoyance Potential Criteria Guidelines

<i>Human Response</i>	<i>Maximum PPV (inches/second)</i>	
	<i>Transient Sources</i>	<i>Continuous/Frequent Intermittent Sources</i>
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.

PPV = peak particle velocity.

Source: California Department of Transportation 2013b.

Train Vibration

The Federal Transit Administration (FTA)’s Transit Noise and Vibration Impact Assessment is specifically developed for determining significant noise and vibration impacts for mass transit projects involving rail or bus facilities, and includes vibration impact criteria,

Table 3.10-6 summarizes the criteria developed by the FTA for assessing groundborne vibration from train passages. The criteria vary, depending on the frequency of events. Similar to the noise criteria, the criteria presented in Table 3.10-6 are based on type of land use. Category 1 land uses include hospitals and manufacturing facilities that have vibration-sensitive equipment. All types of residential land uses are considered Category 2. Category 3 land uses are institutional, with facilities used primarily during the day, such as schools and churches.

REGULATORY SETTING

Federal Regulations

Environmental Protection Agency

Under the authority of the Noise Control Act of 1972, the United States Environmental Protection Agency (U.S. EPA) established noise emission criteria and testing methods published in Parts 201 through 205 of Title 40 of the Code of Federal Regulations (CFR) that apply to some transportation equipment (e.g., interstate rail carriers, medium trucks, and heavy trucks) and construction equipment. In 1974, USEPA issued guidance levels for the protection of public health and welfare in residential land use areas of an outdoor L_{dn} of 55 dBA and an indoor L_{dn} of 45 dBA (U.S. EPA, 1974). These guidance levels are not considered as standards or regulations and were developed without consideration of technical or economic feasibility.

Table 3.10-6: Groundborne Vibration Impact Criteria

<i>Land Use Category</i>	<i>Groundborne Vibration Impact Level (VdB)</i>		
	<i>Frequent Events^a</i>	<i>Occasional Events^b</i>	<i>Infrequent Events^c</i>
Category 1: Buildings where vibration would interfere with interior operations (research facilities, hospitals with vibration sensitive equipment)	65 ^d	65 ^d	65 ^d
Category 2: Residences and buildings where people normally sleep	72	75	80
Category 3: Institutional land uses with primarily daytime uses (schools, churches)	75	78	83

Notes:

- a. *Frequent Events* is defined as more than 70 vibration events of the same source per day. Most rapid transit projects fall into this category.
- b. *Occasional Events* is defined as between 30 and 70 vibration events of the same source per day. Most commuter trunk lines have this number of operations.
- c. *Infrequent Events* is defined as fewer than 30 vibration events of the same kind per day. This category includes most commuter rail branch lines.
- d. This criterion limit is based on levels that are acceptable for most moderately sensitive equipment, such as optical microscopes. Vibration-sensitive manufacturing or research may require detailed evaluation to define the acceptable vibration levels. Ensuring lower vibration levels in a building often requires special design of the heating, ventilation, and air-conditioning systems and stiffened floors.

N/A = not applicable

Source: California Department of Transportation 2013b.

Occupational Safety and Health Administration

Under the Occupational Safety and Health Act of 1970 (29 United States Code [U.S.C.] Section 1919 et seq.), the Occupational Safety and Health Administration (OSHA) has adopted regulations designed to protect workers against the effects of occupational noise exposure. These regulations list permissible noise level exposure as a function of the amount of time during which the worker is exposed. The regulations further specify a hearing conservation program that involves monitoring the noise to which workers are exposed, ensuring that workers are made aware of overexposure to noise, and periodically testing the workers' hearing to detect any degradation.

Department of Housing and Urban Development

The U.S. Department of Housing and Urban Development's environmental criteria and standards are presented in 24 Code of Federal Regulations (CFR) Part 51. New construction proposed in high noise areas (exceeding 65 dBA DNL) must incorporate noise attenuation features to maintain acceptable interior noise levels. A goal of 45 dBA DNL is set forth for interior noise levels and attenuation requirements are geared toward achieving that goal. It is assumed that with standard

construction, any building will provide sufficient attenuation to achieve an interior level of 45 dBA DNL or less if the exterior level is 65 dBA DNL or less. Approvals in a "normally unacceptable noise zone" (exceeding 65 dB, but not exceeding 75 dB) require a minimum of 5dB of additional noise attenuation for buildings having noise sensitive uses if the DNL is greater than 65 dB, but does not exceed 70 dB, or a minimum of 10 dB of additional noise attenuation, if the day-night average is greater than 70 dB, but does not exceed 75 dB.

Federal Highway Administration

An assessment of noise and consideration of noise abatement per Title 23 of the CFR, Part 772, "Procedures for Abatement of Highway Traffic Noise and Construction Noise," is required for proposed federal or federal-aid highway construction projects on a new location, or the physical alteration of an existing highway that significantly changes either the horizontal or vertical alignment, or increases the number of through-traffic lanes. The FHWA considers noise abatement for sensitive receivers, such as picnic areas, recreation areas, playgrounds, active sport areas, parks, residences, motels, hotels, schools, places of worship, libraries, and hospitals when "worst-hour" noise levels approach or exceed 67 dBA Leq. The California Department of Transportation (Caltrans) has further defined "approach" as meaning to be within 1 dB of the Noise Abatement Criteria (NAC).

Federal Railroad Noise Emissions Compliance Regulation

FTA's Office of Safety is responsible for enforcing the Railroad Noise Emissions Compliance Regulation that sets maximum sound levels from railroad equipment and for regulating locomotive horns.

The FTA has issued a manual for assessing transit-related vibration and noise impacts, which was most recently updated in 2018. The *Transit Noise and Vibration Impact Assessment* contains criteria and procedures for use in analyzing the potential noise and vibration impacts of various types of high-speed fixed guideway transportation systems, including freight, passenger, and high-speed rail. The manual also contains standard vibration control and mitigation measures, to be used when impacts would be significant, based on the level and frequency of vibrations, surrounding land uses, and presence of sensitive receptors.

State Regulations

State of California Noise Standards

The State of California does not have statewide standards for environmental noise, but the Governor's Office of Planning and Research (OPR) has established general plan guidelines for evaluating the compatibility of various land uses as a function of community noise exposure. The purpose of these guidelines is to maintain acceptable noise levels in a community setting for different land use types. Noise compatibility by different land uses types is categorized into four general levels: "normally acceptable," "conditionally acceptable," "normally unacceptable," and "clearly unacceptable." For instance, a noise environment ranging from 50 dBA CNEL to 65 dBA CNEL is considered to be "normally acceptable" for multi-family residential uses, while a noise

environment of 75 dBA CNEL or above for multi-family residential uses is considered to be “clearly unacceptable.”

In addition, California Government Code Section 65302 requires each county and city in the State to prepare and adopt a comprehensive long-range general plan for its physical development, with Section 65302(f) specifically requiring a noise element to be included in the general plan. The noise element must: (1) identify and appraise noise problems in the community and analyze and quantify current and projected noise levels; (2) show noise contours for noise sources stated in CNEL; (3) use noise contours as a guide for establishing a pattern of land uses; and (4) implement measures and possible solutions that address existing and foreseeable noise problems.

The State of California has also established noise insulation standards for new multi-family residential units, hotels, and motels that would be subject to relatively high levels of transportation-related noise. These requirements are collectively known as the California Noise Insulation Standards (Title 24, California Code of Regulations). The noise insulation standards set forth an interior standard of 45 dBA CNEL in any habitable room. They require an acoustical analysis demonstrating how dwelling units have been designed to meet this interior standard where such units are proposed in areas subject to noise levels greater than 60 dBA CNEL. Title 24 standards are enforced by local jurisdictions through the building permit application process.

Local Regulations

Union City Noise Ordinance

The Community Noise Ordinance of the Union City Municipal Code (Chapter 9.40) establishes exterior noise limits for residential, commercial, industrial, and public properties. Section 9.40.042 limits the noise increase, on commercial or industrial properties, to no more than 12 dBA above the local ambient level at any point outside the property plane. Section 9.40.043 limits ambient noise on public property to no more than 15 dBA above the local ambient at a distance of 25 feet from the noise source. Section 9.40.050 allows a daytime exception to this standard, provided the noise level does not exceed 70 dBA Lmax 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. 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.

The City also regulates construction noise 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.

City of Union City 2040 General Plan Health and Safety Element

The City sets noise standards in the Health and Safety Element of the City of Union City 2040 General Plan (General Plan). 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 Union City General Plan Noise Standards are shown in Table 3.10-7.

Table 3.10-7: 2040 General Plan Exterior Noise Exposure Standards for New Development

<i>Land Use Designation</i>	<i>Normally Acceptable Community Noise Exposure (Ldn or CNEL, dB)</i>	<i>Conditionally Acceptable Community Noise Exposure (Ldn or CNEL, dB)</i>	<i>Normally Unacceptable Community Noise Exposure (Ldn or CNEL, dB)</i>	<i>Clearly Unacceptable Community Noise Exposure (Ldn or CNEL, dB)</i>
Residential – Low Density Single Family, Duplex, Mobile Homes	50 – 60	60 – 70	70 – 75	75 - 85
Residential – Townhomes, Multi-Family Apartments, Mixed Use, Condominiums	50 – 65	65 – 70	70 – 75	75 – 85
Urban Residential and Mixed-Use Infill Projects and Public Plazas within one-half mile of the Intermodal Station	50 – 70	70 – 75	N/A	75 – 85
Transient Lodging – Motels/Hotels	50 – 65	65 – 70	70 – 80	80 – 85
Schools, Libraries, Churches, Hospitals, Extended Care Facilities	50 – 60	60 – 70	70 – 80	80 - 85
Auditorium, Concert Halls, Amphitheaters	Threshold and mitigation based on site-specific study of impact on nearby sensitive land uses.			
Sports Arena, Outdoor Spectator Sports	Threshold and mitigation based on site-specific study of impact on nearby sensitive land uses.			
Playgrounds, Neighborhood Parks	50 – 70	70 – 75	NA	75 – 85

Table 3.10-7: 2040 General Plan Exterior Noise Exposure Standards for New Development

<i>Land Use Designation</i>	<i>Normally Acceptable Community Noise Exposure (Ldn or CNEL, dB)</i>	<i>Conditionally Acceptable Community Noise Exposure (Ldn or CNEL, dB)</i>	<i>Normally Unacceptable Community Noise Exposure (Ldn or CNEL, dB)</i>	<i>Clearly Unacceptable Community Noise Exposure (Ldn or CNEL, dB)</i>
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 – 70	70 – 75	80 - 85	N/A
Commercial buildings including Office Buildings	50 – 70	70 – 75	75 - 85	N/A
Industrial, Manufacturing Utilities, Agriculture	50 – 75	75 – 80	80 - 85	N/A

Notes:

1. Ldn, 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.

Source: City of Union City 2040 General Plan, 2019.

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 Ldn (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 Table 3.10-7). 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.

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.⁵
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.

Impact Analysis

SIGNIFICANCE CRITERIA

For the purposes of this EIR, a significant impact would occur if implementation of the Proposed Plan would:

- Criterion 1:** 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;
- Criterion 2:** Generate excessive groundborne vibration or groundborne noise levels; or
- Criterion 3:** 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, expose people residing or working in the project area to excessive noise levels.

METHODOLOGY AND ASSUMPTIONS

This analysis is based on noise modeling performed by Charles M. Salter Associates, informed by traffic modeling prepared by Fehr & Peers for the Proposed Plan's study network, including data on traffic volumes, as well as on land use and roadway network changes assumed as part of the Proposed Plan. For the purposes of this analysis, 2018 noise levels identified in the Station East Residential/Mixed Use Project Draft EIR are considered the baseline that is compared to noise levels associated with implementation of the Proposed Plan.

Significance Criteria

For the purposes of this EIR, a significant adverse impact would occur if implementation of the Proposed Plan would result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Planning Area in excess of standards established in the Union City 2040 General Plan Safety Element and City of Union City Municipal Code.

Thus, the following thresholds are applied to determine the significance of Plan-related noise increases:

1. Any projected noise level under the Proposed Plan that is greater than the Normally Acceptable noise level according to the Union City 2040 General Plan Safety Element for existing or planned land uses would be considered potentially significant.
2. A 3-dB increase over existing noise levels where the Proposed Plan noise environment is greater than Normally Acceptable would be considered a substantial permanent increase

in the ambient noise levels (even though it would be expected to be “barely perceptible”). This is because an increase of 3 dB in ambient noise levels would add to a noise level that already exceeds satisfactory standards for the applicable land use per the Union City 2040 General Plan Health and Safety Element.

Where noise levels would remain at or below Normally Acceptable levels, there would be no significant impact, even with an increase of 3 dBA. The 2040 General Plan Safety Element provides Normally Acceptable noise level standards for a variety of land uses. The General Plan Safety Element also provides Conditionally Acceptable noise level standards, for which the specified land use may be permitted only after a detailed analysis of the noise reduction requirements and needed noise insulation features included in the design.

Construction Noise

Construction noise from development facilitated by the Proposed Plan is estimated on the basis of noise levels for various pieces of construction equipment reported by the FTA’s Noise and Vibration Impact Assessment (2018). It is conservatively assumed that construction equipment typically operates as close as 25 feet from the nearest noise-sensitive receptors. Construction noise level estimates do not account for the presence of intervening structures or topography, which could reduce noise levels at receptor locations. New development facilitated by the Proposed Plan would have a significant impact if temporary construction noise during permitted daytime hours could expose noise-sensitive receptors to significantly adverse noise levels, or if construction would not meet one of the standards in Section 9.40.053 of the Union City Municipal Code.

On-site Operational Noise

On-site activities at new development facilitated by the Proposed Plan would have a significant impact if it would expose neighboring noise-sensitive land uses to noise levels exceeding the City’s standards in Chapter 9.40.041, 9.40.042, and 9.40.043 of the Union City Municipal Code, as described above in Regulatory Setting.

Traffic Noise

Traffic-related noise impacts are evaluated using the FHWA Highway Traffic Noise Prediction Model (FHWA RD-77-108). This model requires various parameters, including traffic volumes, vehicle mix, vehicle speed, and roadway geometry to compute typical equivalent noise levels during daytime, evening, and nighttime hours. The resultant noise levels are weighted and summed over 24-hour periods to determine the CNEL values. The traffic volumes for each roadway segment will be used along with the FHWA Traffic Noise Model to calculate Ldn at a distance of 50 feet from the roadway centerlines for local roadways. Noise standards found in the Union City 2040 General Plan Safety Element and Municipal Code are used to evaluate potential noise impacts in the Planning Area, as discussed above.

Railroad Noise

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/11th Street Traffic Analysis*

*and Decoto Road Traffic Signal Timing Study Memorandum.*² 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.

Although no Amtrak stations exist in Union City, the Capitol Corridor passes through the Planning Area at a frequency ranging every one to three hours between 7:00 a.m. to 8:00 p.m. on weekdays, and 8:00 a.m. to 8:00 p.m. on weekends and holidays (Hexagon 2018).

As described in the Existing Noise Sources section above, BART lines run from 4:00 a.m. to 1:00 a.m. every weekday, 6:00 a.m. to 1:00 a.m. on Saturdays, and 8:00 a.m. to 1:00 a.m. on Sundays.

While these sources contribute to the overall noise environment within the Planning Area, they are not considered major noise sources when compared to noise generated by roadways because train trips occur at a lower frequency than traffic on roadways.

Stationary Noise

As noted above, this analysis evaluates impacts associated with the Proposed Plan at the program level, given that specific details on future mechanical equipment or HVAC equipment and layout cannot be known at this time. Accordingly, the specific noise sources that might occur in conjunction with development of land uses allowable under the Proposed Plan also cannot be known at this time. Therefore, stationary and other noise source impacts will be discussed on a qualitative basis, considering the potential for new noise sources to exceed established standards.

Groundborne Vibration

The City has not adopted a significance threshold to assess vibration impacts during construction. The general human response to different levels of groundborne vibration velocity levels is described in Table 3.10-5. To determine vibration impacts during construction under the Proposed Plan, vibration levels were calculated at vibration-sensitive receptors using VdB and compared to the FTA guidelines set forth in the FTA Transit Noise and Vibration Assessment (2018). The following vibration thresholds are established by the FTA for the disturbance of people:

- 65 VdB for buildings where low ambient vibration is essential for interior operations, such as hospitals and recording studios
- 72 VdB for residences and buildings where people normally sleep, including hotels
- 75 VdB for institutional land uses with primary daytime use, such as churches and schools

² Kimley-Horn. 2016. Final Traffic Analysis and Timing Memorandum for Decoto Road/11th Street Traffic Analysis and Decoto Road Traffic Signal Timing Study Memorandum. June 24.

These thresholds apply to “frequent events,” which the FTA defines as vibration events occurring more than 70 times per day. The thresholds for frequent events are considered appropriate because of the scale and duration of the construction activity facilitated by the 2040 General Plan. In addition, this analysis applies the following FTA thresholds in Table 3.10-4 for potential structural damage to buildings from construction vibration.

RELEVANT PROPOSED GOALS AND POLICIES

Mobility

- P-M-2 **New signals.** As part of the new developments in the Marketplace Subarea, install new traffic signals on Decoto Road midway between Alvarado-Niles Road and Union Square and potentially on Alvarado-Niles Road midway between Decoto Road and Union Square, replacing the existing pedestrian hybrid beacon (HAWK) to improve the multi-modal access and connectivity in the area.
- P-M-6 **Improve trail crossing.** Install a Rectangular Rapid-Flashing Beacon (RRFB) at the existing trail crossing on Royal Ann Drive.
- P-M-16 **QLP truck route.** After completion, encourage trucks within the Station District to utilize Quarry Lakes Parkway (QLP) between Mission Boulevard and Alvarado-Niles Road.
- P-M-28 **Design features that reduce automobile use.** Update zoning requirements to ensure that the design of future developments include features that reduce the use of automobiles, such as on-site showers and lockers for non-residential developments, on-site childcare center for large employers, and on-site business center for residential developments.

IMPACTS

- Impact 3.10-1 Implementation of the Proposed Plan would not 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. (Less than Significant with Mitigation)**

Construction

Noise from individual construction projects carried out under the Proposed Plan would likely result in temporary increases in ambient noise levels at 25 feet and at adjacent property lines. As the precise details and timeframes for individual development projects that would be carried out under the Proposed Plan cannot be known at this time, it is not possible to determine exact noise levels, locations, or time periods for construction of such projects, or construction noise at adjacent properties. Construction of mixed-use, high-density development and redevelopment within the Planning Area could potentially expose existing sensitive noise receptors to high levels of sustained

construction noise, including from construction-related traffic, demolition, and reconstruction activities. Table 3.10-8 illustrates typical noise levels associated with construction equipment at a distance of 25 feet. At a distance of 25 feet from the construction site, noise levels similar to those shown in Table 3.10-8 would be expected to occur with individual development projects. Noise would typically drop off at a rate of about 6 dBA per doubling of distance. Therefore, construction noise levels would be about 6 dBA lower than shown in the table at 50 feet from the noise source and 12 dBA lower at a distance of 100 feet from the noise source.

Table 3.10-8: Typical Noise Levels for Construction Equipment

<i>Estimated Noise Levels at Nearest Sensitive Receptors (dBA Leq)</i>				
<i>Equipment</i>	<i>25 feet</i>	<i>50 feet</i>	<i>100 feet</i>	
Air Compressor	86	80	80	74
Backhoe	86	80	80	74
Concrete Mixer	91	85	85	79
Dozer	91	85	85	79
Grader	91	85	85	79
Jack Hammer	94	88	88	82
Loader	86	80	80	74
Paver	91	85	85	79
Pile-drive (Impact)	107	101	101	95
Pile-driver (Sonic)	101	95	95	89
Roller	91	85	85	79
Saw	82	76	76	70
Scarified	89	83	83	77
Scraper	91	85	85	79
Truck	90	84	84	78

Source: FTA, 2018.

As shown in Table 3.10-8, noise levels from construction activity could approach 107 dBA Leq 25 feet from construction equipment, specifically from the operation of pile drivers. Pile foundations are generally used under two situations: 1) when there is a layer of weak soil at the ground surface that cannot support the weight of a building; or 2) when a building has very heavy, concentrated loads, such as in a high-rise structure, bridge, or water tank. The Proposed Plan does not envision new infrastructure such as bridges and water tanks, but it may facilitate the construction of high-rise buildings up to 160 feet tall in the Planning Area. This would exceed the thresholds established in the Noise Ordinance of 83 dBA from construction equipment and could also exceed the threshold of 86 dBA at the property line. Construction noise would exceed ambient noise levels and may temporarily disturb people at neighboring properties.

The severity of construction-related noise impacts depends on the proximity of construction activities to sensitive receptors, the presence of intervening barriers, the number and types of equipment used, and the duration of the activity. While these factors cannot be known precisely for future projects under the Proposed Plan, individual projects would be required to comply with City standards. 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. Additionally, construction during the hours specified above are exempt from the noise standards contained in Article 4 of Chapter 9.40 of the Union City Municipal Code, provided that construction noise is either limited to 83 dBA at a distance of 25 feet from construction equipment or does not exceed 86 dBA outside the property plane of the project. Construction that complies with the time-of-day restrictions for construction activities or these exemptions would result in less than significant noise impacts with regard to the generation of noise in excess of thresholds.

Implementation of policies contained in the 2040 General Plan, would further reduce construction noise and associated impacts. Policy S-8.8, listed above, imposes limits on construction hours to minimize the potential noise impacts of construction activities on surrounding land uses when people are typically sleeping. Policy S-8.9 of the 2040 General Plan also contains construction noise control measures that are to be included as a standard condition of approval of new projects, such as shielding, which can provide a noise reduction ranging from 5 to 15 dBA depending on the type of equipment.

Implementation of these policies and regulations would reduce noise levels associated with most types of equipment to a level consistent with the Municipal Code standard; however, even after implementation of the policies and regulations discussed above, the use of impact and sonic pile drivers within 25 feet of existing home could result in noise levels of up to 92 dBA, which is in excess of the Municipal Code standard of 83 dBA. Therefore, implementation of the Mitigation Measure N-1 would be required to reduce noise impacts of construction projects to a less than significant level. During the clearing, earth moving, grading, and foundation/conditioning phases of construction, Mitigation Measure N-1 would require temporary sound barriers to be installed and maintained between the construction site and sensitive receptors. These sound barriers could consist of sound blankets affixed to construction fencing or temporary solid walls along all sides of the construction site boundary facing potentially sensitive receptors. This measure would apply to projects involving impact pile drivers located within 400 feet of noise sensitive receptors, projects involving sonic pile drivers located within 200 feet of noise-sensitive receptors, and projects without pile-driving that are located within 175 feet of noise-sensitive receptors. Therefore, compliance with existing regulations and implementation of Mitigation Measure N-1 as well as the applicable General Plan and Proposed Plan policies cited above would ensure that impacts related to construction noise would be less than significant.

On-Site Operational Noise

New development in commercial and industrial areas could introduce noise associated with loading activity and industrial equipment. Noise generated by on-site activities for new development would be subject to the City's maximum allowable exterior noise levels, contained in Article 4 of Title 9 of the Union City Municipal Code. Stationary noise sources at new residential and mixed-use development would include ground-level and rooftop ventilation and heating (HVAC) systems. The standards establish exterior noise limits for residential, commercial, industrial, and public properties. Per Union City Municipal Code Section 9.04.042, noise levels associated with commercial and industrial properties are limited to no 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 between 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. Additionally, Section 9.40,041 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. Operation of stationary sources, loading activity, and industrial equipment that complies with the noise increase limits or these exemptions would result in less than significant noise impacts with regard to the generation of noise in excess of thresholds. The majority of proposed uses in the Planning Area include residential and office mixed-use, therefore the potential for new development contributing to increases in on-site operational noise would be minimized. Therefore, compliance with the requirements of the Union City Municipal Code would reduce potential on-site noise impacts to a less than significant level.

Railroad Noise

The Proposed Plan would allow for the placement of new sensitive receptors in the vicinity of the Union Pacific Railroad tracks and BART station in the center of the Planning Area. The railway tracks are surrounded on either side by vacant land, parking lots, parks and open space, townhomes and condominiums, multi-family residential, office, and general industrial land uses. 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.

The 2040 General Plan has designated the surrounding land uses as Station Mixed Use Commercial, Residential (10-17 du/acre, representing existing residential uses), Civic Facility, Station East Mixed Use, and Open Space. Implementation of the Proposed Plan would also locate a new land use, Station East Mixed Use Residential, adjacent to the eastern railroad track that crosses the Planning Area, and redesignate areas adjacent to the southeast railroad and BART tracks from industrial uses to Corridor Commercial and Commercial. The impact of train noise on this land use is further evaluated in the Station East Residential/Mixed Use Project EIR and determined to have no impact, because the project would not result in increased rail-related activity. The Proposed Project also would not increase the level of rail-related activity, and therefore this analysis does not evaluate the effects of existing train and railroad noise sources on future on-site receptors.

As shown in Figure 3.10-1, future noise levels along the railway tracks would not exceed 65 dBA, and this noise level is largely attributable to traffic along major arterials, discussed below. According to the General Plan Safety Element, a noise level of up to 70 dBA Ldn is considered Normally Acceptable for urban residential and mixed-use infill projects and public plazas within one-half mile of the Union City Intermodal Station, which applies to all land uses adjacent to railway tracks in the Planning Area. Additionally, future development under the Proposed Plan would be subject to 2040 General Plan policies that require a wide range of measures to reduce the impacts of rail noise on sensitive receptors, such as forced-air ventilation systems (air conditioning), installation of noise attenuating windows, use of wall/ceiling insulation, site design and setbacks, and noise buffering measures for new uses with the potential to generate significant noise (2040 General Plan policies S-8.3, S-8.4, S-8.6, S-8.7). 2040 General Plan policies S-8.4 and S-8.5 would also require preparation of a noise impact analysis in areas where current or future exterior noise levels from

transportation sources such as rail uses exceed the “normally acceptable” noise standards for new noise sensitive land uses and disclosure of potential noise impacts. Compliance with these policies would ensure that new development near the rail line would mitigate noise impacts through attenuation where necessary in order to maintain acceptable exterior and interior noise environments. As the Proposed Plan would not alter railroad operations, there would be no impact on existing development. Thus, impacts from railroad noise would be less than significant.

Traffic Noise

Future development associated with the Proposed Plan would result in an increase in traffic in and adjacent to the Planning Area, development of new roads, and placement of new sensitive receptors within the Planning Area. Future noise conditions were projected using a reference distance of 50 feet from each roadway segment centerline for local roadways. Then, based on the average daily traffic volumes provided by the traffic consultant, traffic noise levels were quantified for the 2040 Plus Project condition. Existing (2018) traffic noise levels were obtained from the Station East Residential/Mixed Use Project Draft Environmental Impact Report. The difference in noise between these two scenarios represents the Proposed Plan’s incremental contribution to noise levels in the area. Table 3.10-9 shows the results of the noise modeling analysis and Figure 3.10-1: Projected Noise Contours (2040) shows projected noise level contours along local roadways within the Planning Area with the Proposed Plan.

Traffic noise impacts along roadways and at intersections with adjacent existing sensitive receptors were analyzed using threshold (1) discussed in the Methodology and Assumptions section on page 3.10-19. Under this threshold, a traffic noise impact is considered to be significant where the Year 2040 with-project noise environment is greater than the “Normally Acceptable” noise level and the Plan-related traffic noise increase relative to the 2040 without-project baseline is greater than 3 dB.

Table 3.10-9: Traffic Noise Analysis Summary

<i>Roadway</i>	<i>Existing (CNEL)¹</i>	<i>2040 + Project (CNEL)</i>	<i>Increase (dB)</i>	<i>Significant Impact²</i>
Decoto Road between Mission Blvd. and 11th Street	68.6	74.1	5.5	Yes
Decoto Road between 11th Street and Alvarado-Niles Road	68.6	76.1	7.5	Yes
Alvarado Niles Rd. between H Street and Decoto Road	70.0	75.4	5.4	Yes
Alvarado Niles Rd. between Decoto Road and Union Square	67.6	73.9	6.3	Yes
7th Street south of Decoto Rd	66.7	68.8	2.1	No
11th Street south of Decoto Rd	60.2	68.2	8.0	Yes
Future Quarry Lakes Parkway west of Mission Blvd.	66.7 ³	75.3	8.6 ³	Yes

Notes:

¹ Existing noise levels obtained from the Station East Residential/Mixed Use Project Draft Environmental Impact Report.

² 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.

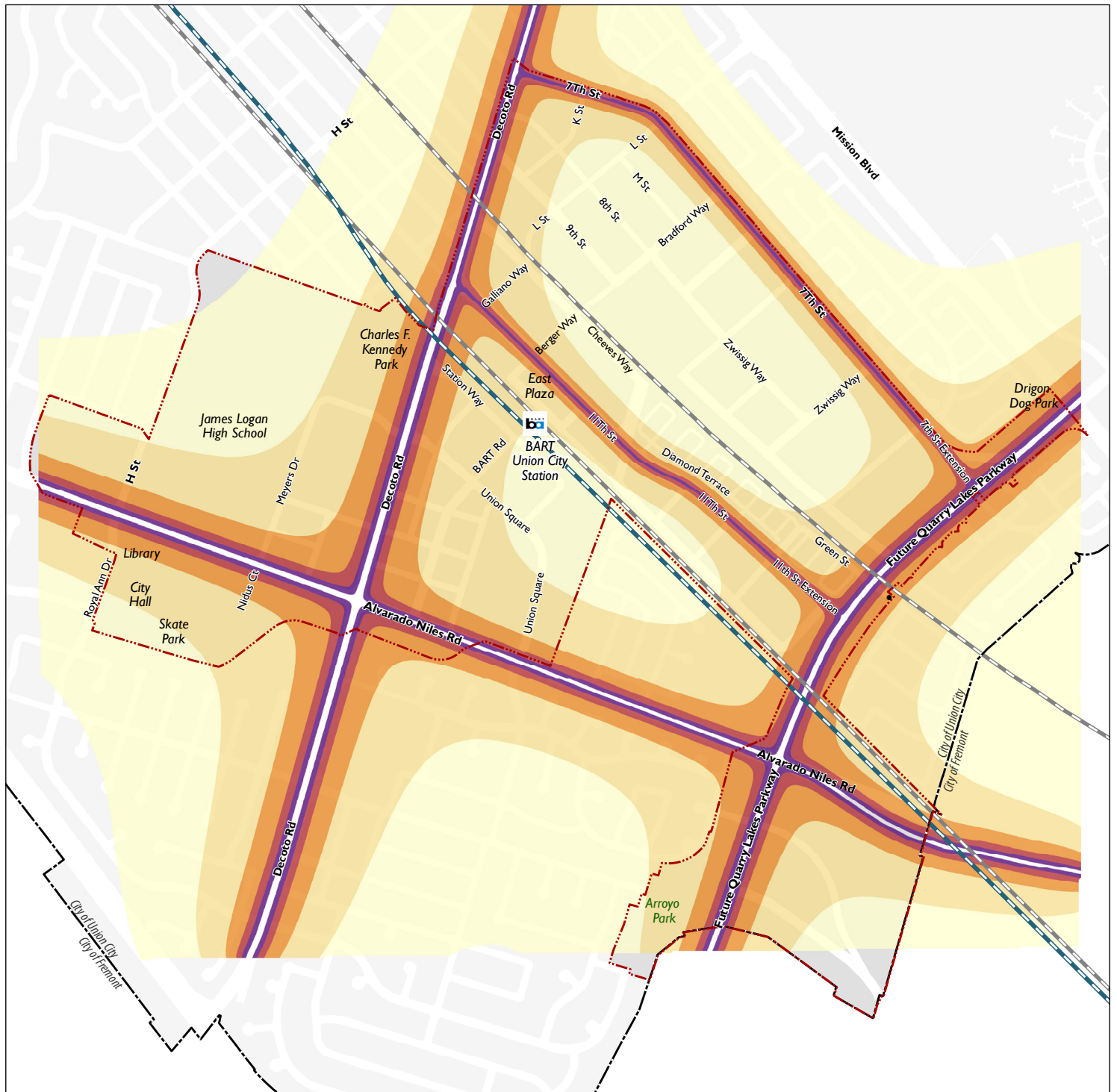
³ Existing noise conditions along 7th Street south of Decoto Road used to approximate existing noise conditions along the Future Quarry Lakes Parkway, which are not available.

Source: Salter & Associates, 2021.

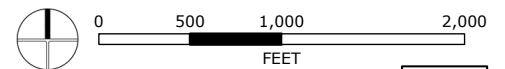
As shown in Table 3.10-9, six of the seven roadway segments studied are projected to exceed established standards in 2040 and would experience a 3 dB or more increase in noise levels under the Proposed Plan compared to existing conditions. Sensitive uses along these roadways include Residential (10-17 du/acre), Residential (17-30 du/acre), Station East Mixed Use Residential, Marketplace Mixed Use, Corridor Mixed Use, Station East Mixed Use, and Station Mixed Use Commercial land use designations. The majority of sensitive uses are urban residential and mixed-use receptors that are located within one-half mile of the Union City Intermodal Station, and would be subject to a noise standard of 70 dB per the 2040 General Plan Safety Element. Residential and mixed-use receptors outside of the one-half mile radius of the Intermodal Station located along Decoto Road between Mission Boulevard and 11th Street, Alvarado-Niles Road between H Street and Decoto Road, and the Future Quarry Lakes Parkway west of Mission Boulevard would be subject to a noise standard of 65 dB, per the 2040 General Plan Safety Element. Future noise levels along 7th Street south of Decoto Road and 11th Street south of Decoto Road would be consistent with General Plan noise standards despite increases in traffic noise levels of up to 8.0 dB. Noise levels along all other roadway segments studied would exceed noise compatibility guidelines and would increase by more than 3 dB over existing conditions, resulting in a potentially significant impact on sensitive receptors.

Furthermore, future development under the Proposed Plan would be subject to 2040 General Plan policies that require a wide range of measures to reduce noise impacts on sensitive receptors, such as forced-air ventilation systems (air conditioning), installation of noise attenuating windows, use of wall/ceiling insulation, site design and setbacks, and noise buffering measures for new uses with the potential to generate significant noise (2040 General Plan policies S-8.3, S-8.4, S-8.6, S-8.7). 2040 General Plan policies S-8.4 and S-8.5 would also require preparation of a noise impact analysis for new noise sensitive land uses and disclosure of potential noise impacts. Implementation of this comprehensive suite of Proposed Plan and 2040 General Plan policies, as well as requirements codified in Article 4 of Title 9 of the Union City Municipal Code, would therefore reduce potential noise impacts to sensitive receptors along major roadways in the Planning Area to a less than significant level despite increases in traffic noise.

Figure 3.10-1: Future Noise Contours (2040)



- CNEL 55 to 60 dB
- CNEL 60 to 65 dB
- CNEL 65 to 70 dB
- CNEL 70 to 75 dB
- CNEL > 75
- Union City Station District
- Union City Limit
- bART Union City BART Station
- BART
- Railroad



Source: City of Union City, 2019; Alameda County GIS, 2019.

Mitigation Measures

MM-N-1: Construction Noise Reduction. For projects involving impact pile-drivers that are located within 400 feet of noise-sensitive receptors, projects involving sonic piledrivers that are located within 200 feet of construction, and projects without pile-driving that are located within 175 feet from noise-sensitive receptors, the following mitigation would be required:

- **Equipment Staging Areas.** Equipment staging shall be located in areas that will create the greatest distance feasible between construction-related noise sources and noise-sensitive receptors.
- **Electrically-Powered Tools and Facilities.** Electrical power shall be used to run air compressors and similar power tools and to power any temporary structures, such as construction trailers or caretaker facilities.
- **Smart Back-up Alarms.** Mobile construction equipment shall have smart back-up alarms that automatically adjust the sound level of the alarm in response to ambient noise levels. Alternatively, back-up alarms shall be disabled and replaced with human spotters to ensure safety when mobile construction equipment is moving in the reverse direction.
- **Additional Noise Attenuation Techniques.** During the clearing, earth moving, grading, and foundation/conditioning phases of construction, temporary sound barriers shall be installed and maintained between the construction site and the sensitive receptors. Temporary sound barriers shall consist of sound blankets affixed to construction fencing or temporary solid walls along all sides of the construction site boundary facing potentially sensitive receptors.

Significance after mitigation: Less than significant.

Impact 3.10-2 Development under the Proposed Plan would not generate excessive groundborne vibration or groundborne noise levels. (*Less than Significant*)

Construction Vibration

Construction of individual projects facilitated by the Proposed Plan could intermittently generate groundborne vibration on and adjacent to construction sites. Buildings in the vicinity of a construction site respond to vibration with varying degrees ranging from imperceptible effects at the lowest levels, to low rumbling sounds and perceptible vibrations at minor levels, and up to minor damage at the highest vibration levels. Table 3.10-3 lists groundborne vibration levels from various types of construction equipment at various distances.

As shown in Table 3.10-3, sensitive receptors could experience the strongest vibration during the use of pile-drivers and vibratory rollers. Vibration levels from pile-drivers could approach 112 VdB at a distance of 25 feet from the source and 103 VdB at 50 feet, and vibration levels from vibratory rollers could approach 94 VdB at a distance of 25 feet and 87 VdB at 50 feet.

Policy S-8.8 of the 2040 General Plan as shown above imposes limits on construction hours to minimize the potential noise impacts of construction activities on surrounding land uses. Policy S-8.10 of the 2040 General Plan also contains construction vibration control measures as standard conditions of approval. Construction during exempt hours as stated in the Chapter 9.40 of the Union City Municipal Code would ensure that residents would not be exposed to excess vibration during normal sleeping hours. Therefore, vibration would not exceed the threshold of 72 VdB for residences and buildings when people normally sleep.

Therefore, compliance with applicable General Plan policies and regulatory requirements, such as the 2040 General Plan Policy S-8.10 and construction hour restrictions codified in the Union City Municipal Code would ensure that construction vibration associated with development under the Proposed Plan would be minimized to the maximum extent practicable and impacts would be less than significant.

Operational Vibration

Stationary Source Vibration

As development occurs, there is generally a potential for more operational vibration sources to be developed. However, implementation of the Proposed Plan would not directly result in an increase of operational sources of vibration in the Planning Area. Additionally, should mechanical equipment be installed or new sources of vibration be constructed, the potential vibration effects would be analyzed in a project-specific environmental analysis. Further, vibration from mechanical equipment is generally localized, and it is unlikely that vibration effects would occur outside the immediate vicinity of the vibration-generating mechanical equipment. Stationary source vibration impacts associated with implementation of the Proposed Plan would be less than significant.

Traffic Vibration

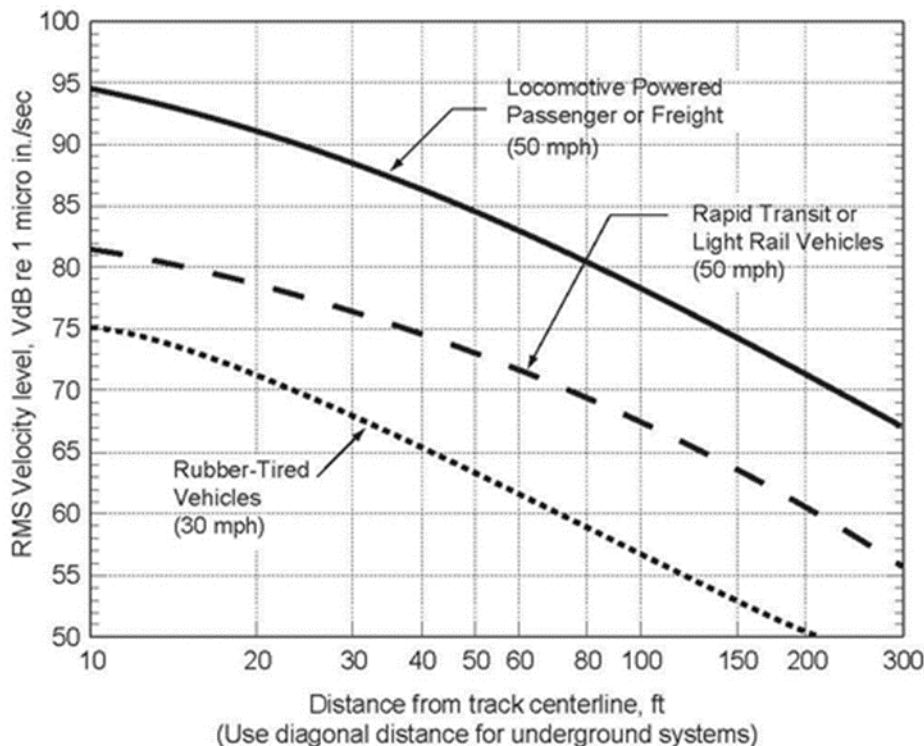
Groundborne vibration generated by traffic traveling on roadways is generally below the threshold of perception at adjacent land uses, unless there are severe discontinuities in the roadway surface. There would be an anticipated increase in traffic in the planning area associated with both the increase in density and intensity allowed under the Proposed Plan and with regional increases in traffic generally (see Section 3.13: Transportation). Vibration resulting from vehicle traffic is generated primarily by heavy truck passage over discontinuities in the pavement (such as potholes, bumps, and expansion joints). Decoto Road, Alvarado-Niles Road, and 7th Street are the designated truck routes within the Planning Area.

This analysis assumes that roadways in the Planning Area are or would be reasonably maintained, with no severe discontinuities. Additionally, policies in the Mobility chapter of the Proposed Plan address streetscape improvements that would serve to avoid traffic-related vibration impacts (policies P-M-2, P-M-6, P-M-8, P-M-10).

Rail Vibration

As discussed above, the two Union Pacific Railroad tracks and BART tracks are sources of rail vibration in the Planning Area. The Proposed Plan would not affect operations of BART and other trains; however, it would allow for future development adjacent to the rail corridor and introduce policies that would increase transit usage (policies LD-P.30, MP-P.22, MP-P.25, MP-P.30, MP-P.39, MP-P.51). Typical vibration levels generated from trains are described in Figure 3.10-2: Generalized Ground Surface Vibration Curves, excerpted from the FTA Transit Noise and Vibration Impact Assessment guidance manual (2018). The railway tracks are surrounded on either side by vacant land, parking lots, parks and open space, townhomes and condominiums, multi-family residential, office, and general industrial land uses. The 2040 General Plan has designated the surrounding land uses as Station Mixed Use Commercial, Residential (10-17 du/acre, representing existing residential uses), Civic Facility, Station East Mixed Use, and Open Space. Implementation of the Proposed Plan would also locate one new land use, Station East Mixed Use Residential, adjacent to the eastern railroad track that crosses the Planning Area. Per 2040 General Plan policy S-8.11, new development within 150 feet of the centerline of BART tracks or railroad tracks would be required to demonstrate compatibility with the FTA's vibration guidelines. As discussed above, development would also be subject to 2040 General Plan policies that require a wide range of measures to reduce the impacts of rail noise on sensitive receptors, such as forced-air ventilation systems (air conditioning), installation of noise attenuating windows, use of wall/ceiling insulation, site design and setbacks, and noise buffering measures for new uses with the potential to generate significant noise (2040 General Plan policies S-8.3, S-8.4, S-8.6, S-8.7). 2040 General Plan policies S-8.4 and S-8.5 would also require preparation of a noise impact analysis in areas where current or future exterior noise levels from transportation sources such as rail uses exceed the "normally acceptable" noise standards for new noise sensitive land uses and disclosure of potential noise impacts. Implementation of these policies could have the added benefit of reducing vibration impacts from rail. Given compliance with 2040 General plan policies, vibration levels generated from trains would be considered less than significant.

Figure 3.10-2: Generalized Ground Surface Vibration Curves



Source: FTA, 2006.

Mitigation Measures

None required.

Impact 3.10-3 The Proposed Plan would not be located within the vicinity of a private airstrip or an airport land use plan or expose people residing or working in the Planning Area to excessive noise levels. (No Impact)

The nearest aviation facilities are Hayward Executive Airport, approximately 6.3 miles northwest of the Planning Area, and Palo Alto Airport, approximately 11 miles southwest. The Planning Area is not within the Airport Influence Area of these airports, nor is the Planning Area located within the 2-mile reference distance from a private airstrip. 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. As such, implementation of the Proposed Plan would not expose people to excessive noise levels related to airport activities and there would be no impact with respect to this criterion.

Mitigation Measures

None required.

3.11 Public Services and Recreation

This section provides an evaluation of potential impacts on public facilities and services as a result of the Proposed Plan, including impacts related to fire, police, school services, and park and recreation facilities. This section describes existing public services and facilities in the planning area, as well as relevant federal, State, and local regulations and programs.

Several responses to the Notice of Preparation (NOP) regarding topics addressed in this section. Comments highlighted the need to address environmental impacts associated with the provision of adequate public safety staffing levels and new parks. These comments are addressed under Impact 3.11-1 below.

Environmental Setting

PHYSICAL SETTING

Police Protection

The Union City Police Department (UCPD) consists of 81 sworn officers, and more than 25 civilian staff members.¹ 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.

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. The California Highway Patrol provides highway and traffic safety services on State roads in the City, including Interstate 880.²

The Union City 2040 General Plan (UC 2040) 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

¹ City of Union City. No date. *Police*. Available: <https://www.unioncity.org/197/Police>. Accessed: July 15, 2021.

² 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. Accessed: July 15, 2021.

2.1 police staff members per 1,000 City residents.³ 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)^{4,5} per 1,000 residents, based on the City's 2020 population of 73,248, is therefore below this County-based standard.⁶ UC 2040 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.⁷

Fire Protection

In 2010, the City contracted with Alameda County Fire Department (ACFD) to provide emergency medical and fire protections services. The contract took effect on July 1, 2010 and stated that ACFD would maintain the then current service levels, which included, among other things, the staffing of all four fire stations. The total service area of the ACFD covers approximately 508 square miles and is supported by 28 fire stations, 475 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.^{8,9} The fire stations within the City are listed in Table 3.11-1. Fire Station 33, which serves the Planning Area, is adjacent to the Planning Area at 33942 7th Street.

In Fiscal Year 2019–2020 (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 42,363 calls throughout its service area, 5,323 of which were in the City.¹⁰ Based on the City's 2020 population of 73,248,¹¹ 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.¹²

³ Ibid.

⁴ Sworn officer service ratio = $(81 \text{ sworn officers} / 73,248 \text{ residents}) \times 1,000 = 1.1$ officers per 1,000 residents

⁵ Civilian staff service ratio = $(25 \text{ civilian staff} / 73,248 \text{ residents}) \times 1,000 = 0.3$ civilian staff per 1,000 residents

⁶ California Department of Finance. May 7, 2021. *E-1 Population Estimates for Cities, Counties, and the State – January 1, 2020 and 2021*. Available: <https://www.dof.ca.gov/forecasting/demographics/estimates/e-1/>. Accessed: July 15, 2021.

⁷ Ibid.

⁸ ACFD. 2021. *Alameda County Fire Department Organization Chart*. Available: <https://fire.acgov.org/fire-assets/docs/ACFDOrganizationChart2021.pdf>. Accessed: July 15, 2021.

⁹ ACFD. 2021. *General Information*. Available: <https://fire.acgov.org/AboutUs/aboutus.page?>. Accessed: July 15, 2021.

¹⁰ ACFD. 2021. *Response and Activity Statistics*. Available: <https://fire.acgov.org/AboutUs/stats.page?>. Accessed: July 15, 2021.

¹¹ Ibid.

¹² 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=. Accessed: July 15, 2021.

Table 3.11-1: Alameda County Fire Department Stations Serving Union City

<i>Fire Station</i>	<i>Station Services</i>
Fire Station 31 Central Union City 33555 Central Avenue Union City, CA	Three firefighters Truck 31 One reserve fire engine
Fire Station 32 Alvarado District 31600 Alvarado Boulevard Union City, CA	Three firefighters Engine 32 One reserve fire engine
Fire Station 33 Decoto District 33942 7th Street Union City, CA	Three firefighters Engine 33 Engine 333 (Type III fire engine used for wildland firefighting)

Source: ACFD, 2021. Fire Stations. Available: <https://fire.acgov.org/AboutUs/facilities.page?> Accessed: July 15, 2021.

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 Union City, six are elementary schools, two are middle schools, one is a high school, and two are adult and independent schools.¹³ The Planning Area is served by six of these schools, as shown in Table 3.11-2.

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 10,812 students in the 2020–2021 school year.¹⁴ NHUSD has not performed a recent capacity/utilization study, but has approximately 780 classrooms. Conservatively assuming 22 students per classroom, the NHUSD currently has capacity for approximately 17,160 students.¹⁵ The 2020 NHUSD Enrollment Projections Report provides student generation rates for a variety of housing types, shown below in Table 3.11-3.

¹³ New Haven Unified School District. 2021. *School Information*. Available: https://www.mynhusd.org/apps/pages/index.jsp?uREC_ID=410958&type=d&pREC_ID=897128. Accessed: July 15, 2021.

¹⁴ DataQuest. 2021. Enrollment by Grade. New Haven Unified Report (01-61242). Available: <https://dq.cde.ca.gov/dataquest/dqcensus/EnrGrdLevels.aspx?cds=0161242&aggllevel=district&year=2020-21&ro=y>. Accessed: July 27, 2021.

¹⁵ Douglas Herring & Associates. 2017. *Station District Block 7 Medical/Office Building Project Initial Study/Mitigated Negative Declaration*.

Table 3.11-2: New Haven Unified School District Schools Serving the Planning Area

School	Address	Enrollment				
		2016-2017	2017-2018	2018-2019	2019-2020	2020-2021
Searles Elementary School	33629 15th St., Union City, CA 94587	697	673	662	717	704
Guy Emanuele, Jr. Elementary School	100 Decoto Rd., Union City, CA 94587	619	586	569	549	559
César Chávez Middle School	2801 Hop Ranch Rd., Union City, CA 94587	1,255	1,252	1,210	1,110	1,010
James Logan High School	1800 H St., Union City, CA 94587	3,750	3,735	3,635	3,650	3,472
Decoto School for Independent Study	725 Whipple Road, Union City, CA 94587	138	118	121	134	471
New Haven Adult School	725 Whipple Road, Union City, CA 94587	N/A	N/A	N/A	N/A	N/A

Source: DataQuest. 2021. Enrollment by Grade. New Haven Unified Report (01-61242). Available: <https://dq.cde.ca.gov/dataquest/dqcensus/EnrGrdLevels.aspx?cds=0161242&aggllevel=district&year=2020-21&ro=y>. Accessed: July 27, 2021.

Table 3.11-3: New Haven Unified School District Student Generation Rates

Housing Type	Average Student Yield
Apartment	0.35
Condominium	0.26
Manufactured	0.28
Townhome	0.55
Single-Family	0.50
Multi-Family ¹	0.39
Overall Average Student Yield²	0.46

Notes:

1. To calculate the student potential for developments with unspecified multi-family housing, an average of the multi-family yields was calculated; this includes apartments, condominiums, and townhomes.
2. To calculate the student potential for developments where the exact housing type is unknown, the overall average student yield is used.

Source: Cooperative Strategies. 2020. New Haven Unified School District Enrollment Projections Report by Boundary of Residence.

Parks

There are 30 parks within Union City, totaling approximately 136 acres, that 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.¹⁶ 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). Currently, the City's parkland ratio is 1.8 acres of parkland per 1,000 residents. 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.

Parks and recreational spaces account for 23 acres or five percent of land use in the Planning Area and include a variety of parks and public plazas, including the Charles F. Kennedy Park, Drigon Dog Park, Arroyo Park, the Promenade, and the Station District Plaza. These public spaces include features such as sports facilities, playgrounds and play equipment, outdoor public seating, and open grassy fields.

Libraries

The Union City Library, located in the Civic Center complex within the Planning Area, is part of the Alameda County Library system. The Alameda County Library has ten branches; the Union City Library also serves the neighboring cities of Fremont, Hayward, and Newark.¹⁷ According to the Alameda County Library Master Space Plan, the Alameda County Library system has a facilities space planning target of 0.45 (the threshold level) to 0.55 sf (the target level) per capita.¹⁸ 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.^{19,20} 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.¹⁹ 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.

¹⁶ 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. Accessed: July 15, 2021.

¹⁷ Alameda County Library. n.d. *Alameda County Library Facts*. Available: <http://www.aclf2.org/library-facts>. Accessed: July 15, 2021.

¹⁸ Alameda County Library. 2017. *Alameda County Library Master Space Plan*. Available: <https://www.g4arch.com/wp-content/uploads/2020/09/acl-msp-final-2017-01-04.pdf>. Accessed: July 15, 2021.

¹⁹ Ibid.

REGULATORY SETTING

Federal Regulations

There are no federal regulations related to public services or recreation that apply to the Planning Area.

State Regulations

California Fire and Building Code

The State of California provides minimum standards for building design through the California Building Code (CBC), which is located in Part 2 of Title 24, California Building Standards Code, of the CCR. The CBC is based on the International Building Code but has been amended for California conditions. It is generally adopted on a jurisdiction-by-jurisdiction basis, subject to further modification based on local conditions. Commercial and residential buildings are plan-checked by local building officials for compliance with the CBC. Typical fire safety requirements of the CBC include: the installation of sprinklers in all high-rise buildings; the establishment of fire resistance standards for fire doors, building materials, and particular types of construction; and the clearance of debris and vegetation within a prescribed distance from occupied structures in wildfire hazard areas.

California Code of Regulations

The California Code of Regulations, Title 5 Education Code, governs all aspects of education within the State. California State Assembly Bill 2926 (AB 2926) – School Facilities Act of 1986 – was enacted by the State of California in 1986 and added to the California Government Code (Section 65995). It authorizes school districts to collect development fees, based on demonstrated need, and generate revenue for school districts for capital acquisitions and improvements. It also established that the maximum fees which may be collected under this and any other school fee authorization are \$1.50 per square foot (\$1.50/ft²) for residential development and \$0.25/ft² for commercial and industrial development.

AB 2926 was expanded and revised in 1987 through the passage of AB 1600, which added Section 66000 et seq. of the Government code. Under this statute, payment of statutory fees by developers serves as total mitigation under CEQA to satisfy the impact of development on school facilities. However, subsequent legislative actions have alternatively expanded and contracted the limits placed on school fees by AB 2926.

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.

California Commission on Peace Officer Standards and Training

The California Commission on Peace Officer Standards and Training (POST) advocates for, exchanges information with, sets selection and training standards for, and works with law enforcement and other public and private entities. POST was established by the Legislature in 1959 to identify common needs that are shared by representatives of law enforcement.

Local Regulations

Union City 2040 General Plan (UC 2040)

UC 2040 includes the following goals and policies associated with public services and recreation:

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 develop the core of the Station District surrounding the Intermodal Station as a major transit hub, business center, and residential address that is well connected with the rest of the city.

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 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.

Union City Municipal Code

Chapter 2.36 of the Union City Municipal Code requires that Union City adhere to the standards for the recruitment and training of peace officers and public safety dispatchers established by the California Commission on Peace Officer Standards and Training (POST), since Union City is qualified to receive aid from the State of California pursuant to Section 13522, Chapter 1 of Title 4, Part 4 of the California Penal Code. Pursuant to Section 13512 of said Penal Code the Commission and its representatives may take measures to ensure peace officer and public safety dispatcher personnel adhere to selection and training standards established by POST.

Chapter 17.30, Subdivisions, of the Union City Municipal Code requires any project that includes a residential subdivision to provide three acres of property (or an equivalent in-lieu fee) for every additional one thousand residents that the project will generate to be devoted to neighborhood and community parks. At the time of approval of the tentative map or parcel map, the City Council determines the land required for dedication or in-lieu fee payment. In addition, Section 18.105.310, Park facilities fee, establishes a fee to pay for municipally-owned park and recreation facilities to finance public facilities and pay for each development's fair share of the construction and acquisition costs for park improvements.

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.

Impact Analysis

SIGNIFICANCE CRITERIA

For the purposes of this EIR, a significant impact would occur if implementation of the Proposed Plan would:

- Criterion 1:** Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, 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 public services:
- a. Fire protection,
 - b. Police protection,
 - c. Schools,
 - d. Parks, or
 - e. Other public facilities;
- Criterion 2:** 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; or
- Criterion 3:** Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

METHODOLOGY AND ASSUMPTIONS

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 Union City 2040 General Plan Update Environmental Impact Report [General Plan EIR]), as well as other local planning documents, to identify the project's potential to result in impacts.

RELEVANT PROPOSED GOALS AND POLICIES

Land Use

P-LU-6 **Supportive Housing Amenities.** Facilitate opportunities to incorporate innovative design and program features into affordable housing developments, such as on-site health and human services, community gardens, car-sharing, and bike facilities. Support the development of projects that serve homeless and special needs populations.

The Core

P-LU-15 **Community Gathering Spaces.** Ensure the provision and programming of community gathering spaces.

P-LU-16 **Public Spaces.** Maintain and enhance park and plaza spaces to meet the needs of the surrounding residents and employees.

Gateway

P-LU-25 **Mix of Housing Types.** Support a mix of housing types including an “agri-hood” concept, where housing and on-site community facilities are integrated with agricultural uses, such as community gardens, that could be public or private.

P-LU-27 **Open Space Amenities,** New development shall provide both passive and active recreation areas and other open space opportunities as well as enhanced facilities for bicyclists and pedestrians.

Civic Center

P-LU-30 **Public Facilities.** Seek funding to enhance existing public open spaces and facilities.

Urban Design

G-UD-1 **Unified Streetscape.** Establish a unified streetscape image for the Station District.

G-UD-2 **Pedestrian Orientation.** Support the development of a safer and more aesthetically pleasing pedestrian realm while preserving automobile capacity and access through pedestrian-oriented design features such as wider sidewalks and bulb-outs that incorporate street trees and cleanwater features. Design streets to be pedestrian-oriented and scaled, with ample landscaping. Provide tree wells that are consistent with City standards.

P-UD-1 **Block Pattern and New Streets.** When new development occurs, provide new motorized and non-motorized connections to create smaller blocks.

- P-UD-4 **Parks and Plazas.** Distribute parks and plazas throughout the Planning Area to provide recreational benefits to residents, visitors, and employees.
- P-UD-6 **Connect Public Spaces.** Parks, plazas and paseos shall connect to the existing and planned circulation network with a consistent system of wayfinding signage, lighting, and public art to create a coherent and highly accessible network of open spaces.
- P-UD-7 **Park Requirement.** All parkland counted toward meeting the City’s parkland requirements shall either be dedicated in fee to the City or have a dedicated public easement in perpetuity as determined by the City.
- P-UD-9 **Park Design for All Ages and Abilities.** Parks shall provide for a variety of uses that allow for various experiences and activities for people of all ages and abilities and shall be designed to respond to a variety of needs, such as shade, quiet areas, play areas, or group gatherings.
- P-UD-10 **Park Design Elements.** Design community parks within the Core, the Marketplace and Station East to include public art elements and restroom facilities.
- P-UD-11 **Accessible Design.** Provide shaded seating areas, a variety of lighting options including pedestrian-scale lighting, bicycle parking, and accessible pathways consistent with the Americans with Disabilities Act in the design of open spaces.
- P-UD-15 **Orientation.** Orient plazas for high visibility to promote usage.
- P-UD-18 **Plaza Seating.** Plazas shall provide ample seating, which can be comprised of benches, seating walls, and moveable seating. A portion of seating shall have back and arm support. Provide shaded seating areas, in addition to areas with full sun access.
- P-UD-22 **Paseo Design.** Paseos shall include walkways, bicycle paths, landscaping, street furniture including accessible seating, pedestrian-scale lighting, public art and amenities such as games or exercise equipment.

Public Facilities, Services, and Infrastructure

- G-PF-1 **Schools.** Work with New Haven United School District and the Alameda County Library to ensure adequate and accessible school and library facilities for the Planning Area.
- G-PF-2 **Public Safety.** Ensure that new development adequately addresses public safety considerations in building design and site planning.
- P-PF-1 **Schools.** Work closely with the New Haven Unified School District to ensure appropriate accommodation of the future student population in the Station District.

P-PF-3 **Fire Services.** Ensure that new development provides adequate fire flow capacity and necessary improvements, such as adequate fire access roadways and fire hydrants.

IMPACTS

Impact 3.11-1 Development under the Proposed Plan would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, 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 public services: fire protection, police protection, schools, parks, or other public facilities. (*Less than Significant*)

Police Service

The Union City 2040 General Plan bases its police-to-citizen staffing ratio goals on the average staffing ratio of other cities in Alameda County. 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 UC 2040 of 2.1 (1.4 sworn officers and 0.7 civilian staff members) per 1,000 residents. Buildout of UC 2040 would result in the addition of 11,486 residents through the year 2040, including 9,400 new residents in the Planning Area under development associated with the Proposed Plan and construction of pipeline projects, reaching a total of 84,477 residents citywide. As the City currently employs 81 sworn officers, the UC 2040 EIR identifies a need to incrementally increase their police services to a total of 177 sworn officers in order to meet the police service ratio of at least 1.4 sworn officers per 1,000 residents in 2040.

New development under the Proposed Plan would likely result in a subsequent increase in police service calls to the Planning Area compared to existing conditions. Proposed Plan Goal G-PF-2 would assist in deterring crime in new development by adequately and proactively addressing public safety concerns through building design and site planning. Additionally, adherence to UC 2040 Goals PF-1 and PF-9 as well as Policies PF-1.1, 1.2, 1.3, 9.1, and 9.2 are aimed at maintaining level of service through coordinating infrastructure and public services planning efforts between the City, developers and other provider agencies. These policies allow for the City to continue to provide emergency and medical services and to ensure adequate police and fire service available under future development and associated population growth. City policies also require that adequate funding is available to maintain levels of service and infrastructure needs under the additional growth projections. PF-3 through PF 5-3 would require developers to support financing of adequate public facilities and services, including police service. Additionally, it is anticipated that the City will continue to strive to achieve its police service ratio goals in accordance with UC 2040, and potential impacts associated with development under the Proposed Plan will be offset by required developer fees. Therefore, associated impacts would be less than significant.

There is potential for the UCPD to increase staffing levels through the year 2040 to meet established standards under buildout of the 2040 General Plan including the Station District area. This could require the construction of new public service facilities that may result in environmental impacts. The specific impacts associated with the construction of such new facilities are not known at this time, and any analysis of such impacts would be speculative. In addition, any such new facilities would require separate environmental analysis and any necessary project specific mitigation prior to being considered for approval. As a result, this impact would be less than significant.

Fire Protection

ACFD continues to provide the same levels of service as were established in the 2010 contract. ACFD has established a response time standard of five minutes to provide adequate emergency response for emergency medical services and fires, and requires three personnel on each fire apparatus. The increased local population generated by the Proposed Plan would likely result in a subsequent increase in fire and emergency medical service calls to the Planning Area compared to existing conditions. The average service area for each of the existing fire stations within Union City (Fire Stations 31, 32, and 33) is approximately 3.0 square miles. According to analysis by the Center for Public Safety Management, the average service area per station is much lower than the minimum service area of 7.3 square miles required to achieve the NFPA response time standard of four minutes.²⁰ Additionally, the analysis concludes that the response time for the majority of the Planning Area is four minutes, and the entirety of the Planning Area is accessible within six minutes. Fire Station 33, immediately adjacent to the northern boundary of the Planning Area on 7th Street, currently operates three shifts with a minimum of three people per shift. According to the ACFD, if an increase in staffing is needed as a result of buildout under the Proposed Plan, Fire Station 33 can accommodate one additional engine company which would include 6 people and 1 Battalion Chief. Therefore, it is not anticipated that a new fire station facility would be required as a result of the Proposed Plan.

Consistent with Proposed Plan Policies P-PF-3 and UC 2040 Policy PF-10.2, as future buildout occurs under the Proposed Plan and UC 2040, the City will evaluate operations and deployment of services to efficiently use resources, ensure sufficient staffing to serve all new development and associated population growth in the Planning Area, and monitor the need for a new fire station and/or additional equipment. Additionally, new development under buildout of the Proposed Plan would be required to comply with all applicable federal, State, and local regulations governing the provision of fire protection services, including adequate fire access, fire flows, and number of hydrants. This includes the 2019 California Fire Code, which contains project-specific requirements such as construction standards in new structures and remodels, road widths and configurations designed to accommodate the passage of fire trucks and engines, and requirements for sprinkler systems and minimum fire flow rates for water mains. The ACFD includes a Fire Prevention Branch that reviews building, and facility plans through the City's development review and building permit processes. Fire Prevention personnel also inspect new and remodeled buildings and facilities to ensure that the structures meet State and local fire codes and standards. Additionally, the City would work with the ACFD to ensure that fire flow capacity is adequate for

²⁰ 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=. Accessed: July 15, 2021.

new development and necessary improvements are in service prior to building construction (policy P-LU-6). Compliance with these measures would reduce the risk of structure fires and would further ensure that construction of a new fire department facility would not be required to support fire services in the Planning Area. Therefore, this impact would be less than significant.

Schools

As discussed in Chapter 2, Project Description, development under the Proposed Plan and construction of pipeline projects would result in 3,930 net new units and 9,400 new residents in the Planning Area compared with existing conditions. It is reasonably foreseeable that some of these units would support families with children that may attend NHUSD facilities. To calculate student potential for new development under the Proposed Plan, the applicable student generation rates provided in the 2020 NHUSD Enrollment Projections Report (see Table 3.11-3) are applied to buildout projections in each subarea, as shown in Table 3.11-4. Specific generation rates are applied based on the allowable density of proposed residential land use designations within the Planning Area subareas.

Table 3.11-3: New Haven Unified School District Student Generation Rates

<i>Subarea</i>	<i>Proposed Residential Land Use Designations</i>	<i>Net New Residential Units</i>	<i>Applicable Student Generation Rate</i>	<i>New K-12 Student Population</i>
The Core	Station Mixed Use Commercial Residential (10-17 DU/acre)	1,110	0.35 ¹	389
Station East	Station East Mixed Use Residential Station East Mixed Use	1,290	0.39 ²	503
The Marketplace	Marketplace Mixed Use Residential (17-30 DU/acre)	1,010	0.35 ²	354
Gateway	Corridor Mixed Use Commercial Residential (10-17 DU/acre) Residential (17-30 DU/acre)	520	0.39 ¹	203
Civic Center	N/A	0	0	0
Total		3,930	-	1,449

Notes:

1. Student generation rate for apartments.
2. To calculate the student potential for developments with unspecified multi-family housing, an average of the multi-family yields was calculated; this includes apartments, condominiums, and townhomes.

Source: Dyett & Bhatia, 2021; Cooperative Strategies. 2020. New Haven Unified School District Enrollment Projections Report by Boundary of Residence.

Using the NHUSD’s student generation rates of 0.35 students per household for apartments and 0.39 students per household for unspecified multi-family housing, implementation of the Proposed Plan would result in a total of 1,449 new students within the Planning Area. NHUSD has not

performed a recent capacity/utilization study, but has approximately 780 classrooms. Conservatively assuming 22 students per classroom, the NHUSD currently has capacity for approximately 17,160 students.²¹ NHUSD enrollment in the 2019-2020 school year was 10,812 students; thus, the 1,449 new students that could be generated by development under the Proposed Plan would not exceed the district's estimated capacity and construction of new school facilities to accommodate development under the Proposed Plan would not be required.²² Furthermore, the NHUSD projects that student enrollment is projected to decrease to 9,127 students in the 2029-2030 school year, which would provide additional capacity to accommodate new students in the Planning Area. Consistent with Proposed Plan Goal G-PF-1 and Policy P-PF-1, the City would work closely with NHUSD to ensure appropriate accommodation of the future student population in the Planning Area and promote accessible school facilities. Additionally, project applicants for development under the Proposed Plan 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 impacts on NHUSD capacity and would provide funding for potential future school facility development needs associated with the Proposed Plan-related population increase. Therefore, due to available school capacity, compliance with SB 50 and implementation of Proposed Plan policies, construction or expansion of new school facilities would not be required and this impact would be less than significant.

Parks

There are 30 parks within Union City, totaling approximately 136 acres, as well as additional recreational facilities such as regional parks and school athletic fields. The citywide current (2018) parkland ratio is 1.8 acres per 1,000 residents. Consistent with the Quimby Act (California Government Code Section 66477), the UC 2040 Policy HQL-2.2 requires new residential subdivisions to dedicate parkland at the maximum allowed ratio of 3.0 acres of parkland per 1,000 new residents, or pay an equivalent in-lieu fee to offset the increase in park needs resulting from new residents. The Proposed Plan would result in an incremental increase in population in the Planning Area over the next 20 years, which would increase demand for parks and recreation facilities and therefore require construction of new or physically altered facilities.

Consistent with the approved Station East Residential/Mixed Use Project, the City allows plazas, civic spaces, and other gathering spaces that contribute to the public realm as part of contribution towards meeting parkland requirements, and recreational pathways, such as paseos, may also be considered.

The environmental impacts related to traffic, noise, and air quality and GHG emissions during construction and operation of the park facilities have been considered throughout this EIR. Detailed design of the new park facilities has not yet been completed, so site specific impacts cannot be evaluated at this time. However, construction of new parks would be subject to separate project-level CEQA review at the time the design is proposed in order to identify and mitigate project-

²¹ Douglas Herring & Associates. 2017. *Station District Block 7 Medical/Office Building Project Initial Study/Mitigated Negative Declaration.*

²² Douglas Herring & Associates. 2017. *Station District Block 7 Medical/Office Building Project Initial Study/Mitigated Negative Declaration.*

specific impacts as appropriate. As such, compliance with existing regulations would reduce impacts to a less than significant level related to the provisions of park facilities.

Other Public Facilities

The increased local population generated by implementation of the Proposed Plan 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. The City has not adopted service standards for other public facilities, but supports expansion and funding mechanisms to ensure adequate access.

As of 2016, Alameda County Library facilities provided approximately 0.42 sf per capita, which is below the recommended threshold level of 0.45 square feet per capita and target of 0.55 square feet per capita. The Union City Library has stated that the current facility of 12,000 square feet is inadequate for the existing population it serves. To address the deficiency in the library system, the Alameda County Library Master Space Plan recommended a replacement library facility in Union City of between 45,000 and 50,000 square feet. However, due to financing constraints, the Union City Library has experienced a loss in supplemental funding over the last two years that has required reductions in staff and service levels in response. Additionally, construction of a new library facility would require a City Capital Improvement Plan or other funding that is not currently available. While the Union City Library is currently adding technology infrastructure, it does not anticipate large-scale equipment installations in the current facility due to size constraints.

According to the UC 2040 EIR, construction of new library facilities, if required, would likely occur on property previously disturbed or developed, reducing the potential for substantial environmental impacts. In addition, any such new facilities would require separate environmental analysis and any necessary project specific mitigation prior to being considered for approval. The UC 2040 EIR concludes that with implementation of goals and policies that support Alameda County's efforts to provide adequate library facilities and ensure that funding is available for infrastructure to meet the needs of the proposed growth through 2040 (UC 2040 Goal PF-12 and Policies PF-12.1, PF-12.2, PF-12.3, and PF-12.4), impacts to library facilities associated with development through 2040 would be less than significant. Consistent with Proposed Plan Goal G-PF-1 and Policy P-PF-3, the City would promote adequate and accessible library facilities for the Planning Area by providing opportunities for improvements to the library facility based on an increased population. 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 implementation of the Proposed Plan, is not expected. The Proposed Plan would not result in new or different impacts than UC 2040; therefore, this impact is less than significant.

The Proposed Plan would create a diverse range of spaces at different scales and sizes throughout the Planning Area to provide outdoor recreation and opportunities for people to congregate and relax, which could serve as community facilities (goal G-UD-1, policies P-LU-6, P-LU-15, P-LU-25, P-LU-27, P-LU-30, P-UD-4, P-UD-11, P-UD-15). These include paseos, plazas, community gardens, on-site health and human services facilities in affordable housing developments,

community gathering spaces, and food truck areas for special events. In the event that a new public service or community 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 Planning Area would be located and constructed in an urbanized and developed area. However, environmental impacts related to construction emissions, vehicle miles traveled (VMT), and biological resources associated with construction of expansion of the proposed plazas and paseos are accounted for in technical modeling provided in other chapters of this EIR. Future recreational facilities will tier from this EIR to identify and mitigate site specific impacts if and when design of those parks is complete. Therefore, public service and community facilities impacts of the Proposed Plan would be less than significant.

Mitigation Measures

None required.

Impact 3.11-2 Development under the Proposed Plan would not 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 (Less than Significant)

As discussed under Impact 3.11-1, population growth associated with implementation of the Proposed Plan could increase demand for the City's existing neighborhood and regional parks and potentially require the construction of new or physically altered facilities to meet the increased demand for parkland. There are 30 parks within Union City, totaling approximately 136 acres, that are managed by the City's Community and Recreation Services Department, as well as additional recreational facilities such as regional parks, trails, and school athletic fields that are not managed by the City's Community and Recreation Services Department.²³

Construction of new parks and physical alteration of existing parks to accommodate increasing population may result in environmental impacts. However, environmental impacts related to construction emissions, vehicle miles traveled (VMT), and biological resources associated with construction of expansion of the proposed parks are accounted for in technical modeling provided in other chapters of this EIR. Future parks will tier from this EIR to identify and mitigate site specific impacts if and when design of those parks is complete. The Proposed Plan and UC 2040 include various goals and policies to ensure adequate open space is provided within the City. Compliance with Proposed Plan policies that stipulate requirements for parks and plazas and expand recreational opportunities and UC 2040 policies, including Policies HQL-2.2 and HQL-2.3 which require developers pay in-lieu fees or dedicate parkland, would help ensure that population growth associated with the Proposed Plan would not result in substantial physical deterioration of existing parks and recreation facilities. Therefore, this impact would be less than significant.

²³ 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. Accessed: July 15, 2021.

Mitigation Measures

None required.

Impact 3.11-3 Development under the Proposed Plan would not require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. (*Less than Significant*)

As discussed under Impact 3.11-1, the increased local population generated by the Proposed Plan 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, as well as regional recreational facilities, such as the East Bay Regional Park District and Bay Area Ridge Trail. The Proposed Plan would create a diverse range of spaces at different scales and sizes throughout the Planning Area to provide outdoor recreation and opportunities for people to congregate and relax, which could serve as community facilities (goal G-UD-1, policies P-LU-6, P-LU-15, P-LU-25, P-LU-27, P-LU-30, P-UD-4, P-UD-11, P-UD-15). These include parks, paseos, plazas, community gardens, on-site health and human services facilities in affordable housing developments, community gathering spaces, and food truck areas for special events. Thus, with an ample array of new facilities to serve the current and future population of the Planning Area, substantial degradation to such facilities resulting in the need for existing facility expansion or new facility construction directly related to implementation of the Proposed Plan is not expected.

Although no such facilities are directly proposed under the Proposed Plan, the expansion of existing recreational facilities or the construction of new ones would be permitted. Given that the precise location and design of such facilities cannot be known at this time, potential environmental impacts cannot be determined. However, environmental impacts related to construction emissions, vehicle miles traveled (VMT), and biological resources associated with construction or expansion of new recreational facilities are accounted for in technical modeling provided in other chapters of this EIR. Additionally, future facilities will be able to tier from this EIR to identify and mitigate site specific impacts if and when design of those facilities is complete. Therefore, overall implementation of the Proposed Plan would have a less than significant impact with respect to impacts associated with the construction or expansion of recreational facilities.

Mitigation Measures

None required.

3.12 Transportation

This section evaluates the potential impacts to transportation that could arise from implementation of the Proposed Plan. The analysis evaluates the possible impacts of the Proposed Plan on vehicle miles traveled (VMT), and determines if the Proposed Plan 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.

Travel behavior within the last year 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.

There were multiple comments on the Notice of Preparation related to transportation. Caltrans requested an evaluation of project impacts on VMT. Several organizations, including Caltrans, the Alameda County Transportation Commission (CTC), and City of Fremont requested an evaluation of pedestrian, bicycle, and transit conditions and/or inclusion of transportation demand management (TDM) measures for mitigating significant impacts on transportation. Various commentors, including the local organization Friends of Save the Union City Hills and several members of the Purple Lotus Temple, a Buddhist temple located near the Planning Area in the City of Fremont, commented regarding the construction of the Quarry Lakes Parkway project, and the increased traffic congestion caused by both the Quarry Lakes Parkway project and the Proposed Plan. Impacts of the Proposed Plan on VMT as well as bicycle, pedestrian, and transit facilities, in terms of consistency with adopted policies, plans, and programs and increased hazards are discussed below. The Proposed Plan includes TDM policies. The impacts of the Proposed Plan on traffic congestion cannot be evaluated in the EIR because State law states that “automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment.” (California Public Resources Code, § 21099(b)(2)). The Quarry Lakes Parkway project has undergone separate environmental review and impacts of the project related to transportation are not applicable to the discussion in this EIR. The Alameda County Transportation Commission certified the Final EIR for the project in 2009. In addition, the City Councils of Union City and Fremont, each acting as

Responsible Agencies under CEQA, accepted the certified Final EIR, and conditionally approved the project in the same timeframe.

Environmental Setting

PHYSICAL SETTING

Circulation Network

The City of Union City 2040 General Plan (UC2040) classifies roadways as freeways, State highways, arterials, primary collectors, industrial roadways, residential collectors, and minor residential streets. Figure 3.12-1 shows the circulation network, which is consistent with the circulation network evaluated for the UC2040's Mobility Element. Descriptions of the streets in and around the Planning Area are provided below.

Generally, the street network in the Planning Area and vicinity does not align with a north-south/east-west orientation. This analysis assumes that Decoto Road is an east-west roadway and 7th Street and Mission Boulevard are north-south roadways.

Freeways

As defined in UC2040, 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 Planning Area is listed below.

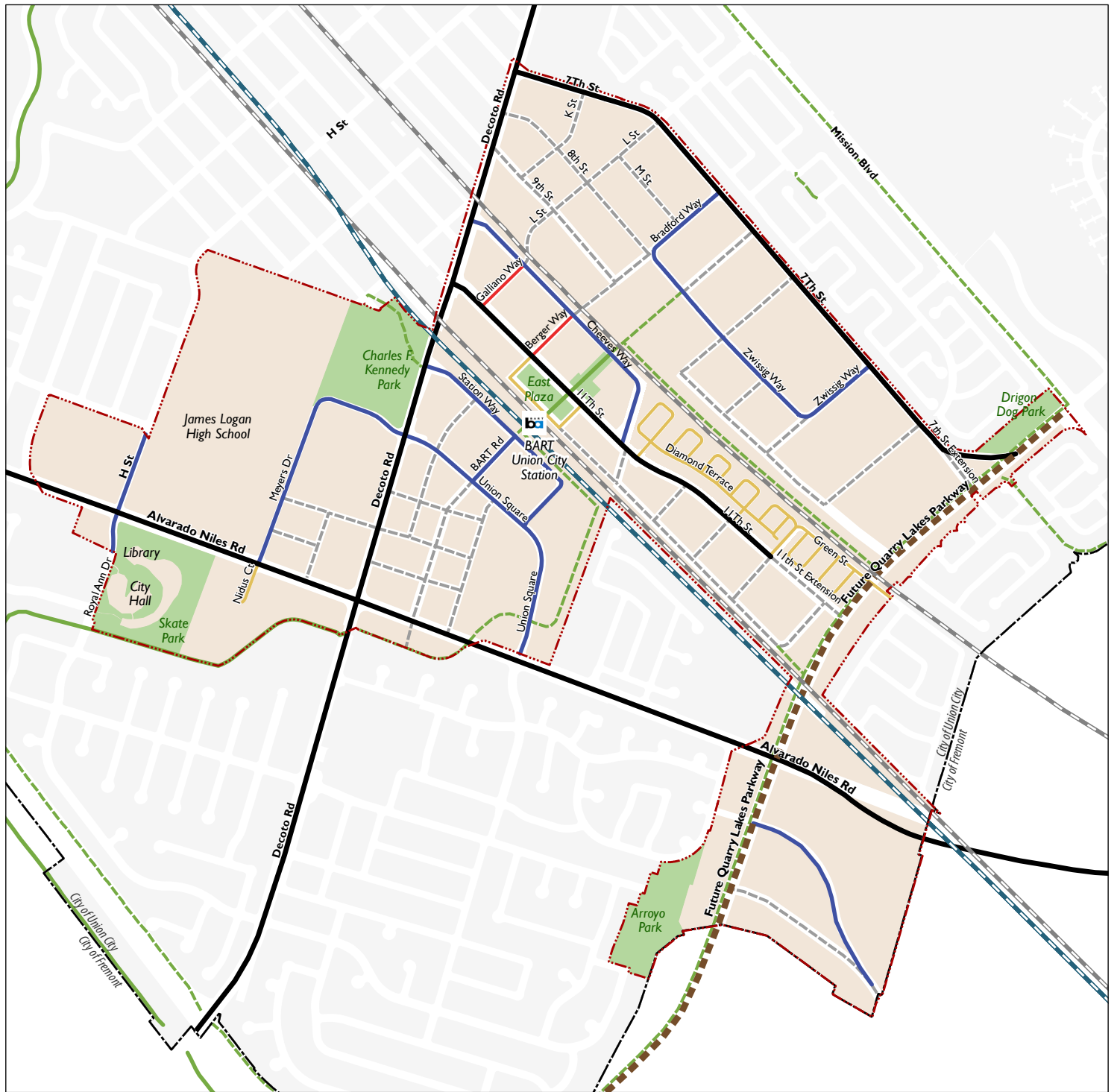
- **Interstate 880 (I-880)**—I-880 is a north-south freeway connecting the San José area to the south with downtown Oakland and the Bay Bridge to the north. The speed limit is 65 miles per hour (mph) near the Planning Area. Near the City, I-880 provides four or five lanes in each direction, including a high-occupancy/express vehicle lane. The closest access between I-880 and the Planning Area is provided from interchanges at Alvarado-Niles and Decoto Roads, which are both located more than two miles away.

State Highways

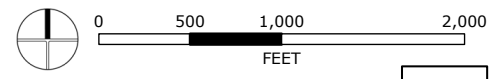
State highways are intended to have limited access and moderate to high travel speeds. Limited direct access to industrial, commercial, and high-density residential uses is permitted from State highways. The following State route serves the Planning Area.

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 bike lane is provided in each direction south of Decoto Road. Mission Boulevard is one of the primary parallel routes to I-880.

Figure 3.12-1: Existing Circulation Network



- Union City Station District
- Union City City Limit
- Existing Arterial
- Existing Primary Collector
- Existing Residential Collector
- Existing Minor Residential Street
- Existing Class I Path
- Future Quarry Lakes Parkway
- Potential New Motorized Connection
- Proposed Shared-Used Path (Class I)
- Existing Parks
- Intermodal Station
- BART
- Railroad



Source: City of Union City, 2019; Alameda County GIS, 2019.

Arterials

Arterials are moderate-speed through streets, which 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 in the Planning Area are:

- **Decoto Road** is a four-lane east-west road divided by a median with limited landscaping. The speed limit is 35 mph. Sidewalks and Class II bike lanes are provided in both directions. The UC2040 Mobility Element identifies Decoto Road as a future Complete Street Corridor to improve the non-automobile access and circulation along the corridor.
- **Alvarado-Niles Road** is a four-lane north-south road divided by a landscaped median. The speed limit is 35 mph in the Planning Area. Sidewalks and Class II bike lanes are provided in both directions, although the sidewalk is at street grade between Osprey Drive and Lotus Pond Common.
- **7th 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. A sidewalk is generally provided on both sides of the street, but there is one sidewalk gap on the east side between Daggett Avenue and the City's Corporation Yard. 7th Street does not provide any designated bicycle facilities.
- **11th Street** is a four-lane north-south road divided by a landscaped median. The speed limit is 35 mph south of Decoto Road, and 25 mph north of Decoto Road. Sidewalks and Class II bike lanes are provided in both directions of the street.

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 in the Planning Area are:

- **Bradford Way** is an undivided two-lane east-west road between 7th Street and Zwissig Way. The speed limit is 25 mph, and sidewalks are provided on both sides of the street. Bradford Way does not provide any designated bicycle facilities.
- **Cheeves Way** is a two-lane undivided north-south road that extends between Decoto Road and 11th Street. The speed limit is 25 mph. There is only one section of sidewalk on the west side of the street near the south terminus, and no bicycle facilities are provided along the road.
- **H Street** is a two-lane undivided east-west road that extends between Alvarado-Niles Road and Decoto Road. H Street continues west of Alvarado-Niles Road as Royal Ann Drive. The speed limit is 25 mph, and sidewalks are provided on both sides of the street. H Street does not provide any designated bicycle facilities.
- **Meyers Drive** is a two-lane undivided 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 sidewalks are provided on both sides of the street. Meyers Drive does not provide any designated bicycle facilities.
- **Quarry Lakes Drive/Isherwood Way** is a two-lane undivided east-west road that extends between Osprey Drive and Paseo Padre Parkway. The speed limit is 35 mph. A sidewalk is

- provided on the south side of the road between Osprey Drive and Roeding Avenue, with a small section at street grade near the intersection with Roeding Avenue, and on both sides for the remaining length. There is a Class II bike lane in each direction for most of the length of the road, except for a short segment near the intersection with Roeding Avenue.
- **Union Square** is a three-lane undivided 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 east of Alvarado-Niles Road. Sidewalks and Class II bike lanes are provided in both directions.
 - **Zwissig Way** is an undivided two-lane road that starts east-west on 7th Street and ends north-south at Bradford Way. The speed limit is 25 mph, and sidewalks are provided on both sides of the street. Zwissig Way does not provide any designated bicycle facilities.

Residential Collectors

Residential collector streets are intended to carry moderate volumes of traffic from local streets to primary collectors and arterials. There are a limited number of residential collectors in the Planning Area at this time; however, several residential collector streets, such as 8th and 9th Streets, are provided in the vicinity of the Planning Area to the north of Decoto Road.

Minor Residential Streets

Minor residential streets are low-capacity streets primarily serving low density residential uses. Minor residential streets are provided within the residential neighborhoods of the Planning Area.

Quarry Lakes Parkway Project

Quarry Lakes Parkway is a planned four-lane, multimodal local street, parallel to Decoto Road between Paseo Padre Parkway in Fremont to Mission Boulevard. The Parkway will create a new way to access the Station District Area and the east side of the Union City BART Station through a direct connection to 11th Street. Quarry Lakes Parkway will enhance and support the density and diversity of uses that are clustered in the Station District Area. Quarry Lakes Parkway will include pedestrian and bicycle facilities, including an on-street buffered bicycle lanes (Class II) and an off-street shared-use path (Class I) parallel to the street, called the Quarry Lakes Trail.

The Quarry Lakes Trail will provide a critical bicycle and pedestrian connection across Union City, linking facilities along Mission Boulevard to the Station District, the Fremont Quarry Lakes Trail, and regionally-significant destinations further west such as the Alameda Creek Trail, the Bay Trail, and the Dumbarton Bridge. Quarry Lakes Trail will also provide an alignment for the regional East Bay Greenway through Union City.

Quarry Lakes Parkway will provide a parallel route to Decoto Road and is anticipated to redistribute local traffic, thereby achieving the vision of a multimodal corridor from Mission Boulevard in Union City to the I-880/Decoto Road interchange in Fremont. The Parkway will be used by motorists, transit riders, pedestrians, and bicyclists for commuting and recreation.

Quarry Lakes Parkway is an approved and funded project. The Alameda County Transportation Commission certified the Final EIR for the project in 2009. In addition, the City Councils of Union

City and Fremont, each acting as Responsible Agencies under CEQA, accepted the Final EIR, and conditionally approved the project in the same timeframe. Quarry Lakes Parkway has also been identified in the following approved regional transportation documents:

- MTC's Plan Bay Area 2050 (Project No. 79 under T7. Advance Other Regional Programs and Local Priorities)
- Alameda County Transportation Commission's 2020 Countywide Transportation Plan (Project No. 90, 10 Year Priority Projects/Programs, for QLP Phases 1-4; Project No. 190, 30 Year Priority Projects/Programs) for QLP Phase 5
- Alameda County Transportation Commission's 2014 Transportation Expenditure Plan.

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 page 3.12-21 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 (Union City, 2010), 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 the following VMT metrics:

- **Household VMT per capita**, which measures all the VMT by motor vehicle on a typical weekday associated with a residential use, such as trips to work, school, or shop, and divides that VMT by the number of residents in the Planning Area.
- **Commute VMT per worker**, which measures all of the worker commute VMT by a motor vehicle on a typical weekday between homes and workplaces and divides that VMT by the number of workers in the Planning Area.
- **Total VMT per service population**, which measures all of the VMT of all vehicle trips, vehicle types, and trip purposes for all of the Planning Area, and divides that total VMT by the service population (i.e., sum of residents and workers) in the Planning 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, which represents pre-pandemic conditions; therefore, the model approximates existing conditions. The VMT estimate accounts for all the VMT generated by the Planning Area within the Nine County Bay Area region. Table 3.12-1 presents the existing VMT efficiency metrics (i.e., per capita, per worker, or per service population) for the Planning Area and compares them to the citywide, countywide, and regionwide averages based on the Alameda CTC Model results for 2020.

Table 3.12-1: Existing (2020) VMT Summary

<i>Geography</i>	<i>Average Household VMT per Capita</i>	<i>Average Commute VMT per Worker</i>	<i>Total VMT per Service Population</i>
Specific Plan Project Area Average	23.3	13.2	26.1
Union City Average	23.7	15.4	27.1
Alameda County	19.4	15.9	26.6
Bay Area Region	19.8	18.1	29.3

Source: Fehr & Peers based on the results of the Alameda CTC Travel Demand Model, 2021.

As shown in Table 3.12-1, the existing average household VMT per capital for the Planning Area is lower than the Union City citywide average, but higher than the Alameda County and the Bay Area Region, the existing average commute VMT per worker and the total VMT per service population for the Planning Area are lower than the averages for Union City, Alameda County, and the Bay Area Region.

Existing Traffic Volumes

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 3.12-2. As shown in Table 3.12-2, 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 AM and in the evening between 4:00 and 6:00 PM.

Table 3.12-2: Existing Average Daily Traffic Volumes

<i>Roadway</i>	<i>Count Location</i>	<i>Average Daily Traffic (ADT)¹</i>	<i>Average Truck %</i>
7th Street	Between fire station and R&S Manufacturing driveway	6,500	10%
7th Street	Between Union City Corpyard and Union City Transit driveways	5,600	7%
11th Street	Between Cheeves Way and Aquamarine Terrace	3,000	3%
Decoto Road	Between 6th and 7th Streets	18,000	5%
Decoto Road	Between Skylark Drive and Skylark Apartments driveway	39,700	4%

Table 3.12-2: Existing Average Daily Traffic Volumes

<i>Roadway</i>	<i>Count Location</i>	<i>Average Daily Traffic (ADT)¹</i>	<i>Average Truck %</i>
Alvarado-Niles Road	Between H Street and Meyers Drive	28,700	4%
Alvarado-Niles Road	Between Union Square and Flagstone Drive	18,900	5%

Notes:

1. Roadway segment counts were collected between Tuesday, November 6, 2018, and Thursday, November 8, 2018.

Source: Fehr & Peers, 2021.

Existing Transit System

Transit service within and near the Planning Area is provided by BART, which provides regional rail service; AC Transit, which provides regional bus service; Dumbarton Express (DBX), which provides a Transbay bus service; and Union City Transit, which provides local bus service.

Figure 3.12-2 shows the existing transit services in the Planning Area. Each transit service is described below.

Bay Area Rapid Transit

BART provides regional rail service between San Francisco, northern San Mateo County northern Santa Clara County, and the East Bay. The BART station serving the Planning Area is the Union City Intermodal Station, which is located within the Core Subarea. All access to the Union City Intermodal Station is currently from the west because the UPRR tracks in the Oakland Subdivision are east of the station and limit direct access. Two roads provide access to the station: Station Way, which intersects Decoto Road and Union Square, and BART Road, which intersects Union Square. There are sidewalks along all access roads. All access roads have bike lanes in both directions. There are transit stops for AC Transit, Union City Transit, and DBX adjacent to the station entrance. According to 2019 station parking data provided by BART, the station has 1,144 vehicle parking spaces and 170 bicycle parking spaces. The two vehicle parking lots are accessed from Station Way and Union Square.

The Union City Intermodal Station is served by two BART lines: Richmond- Berryessa/North San Jose and Daly City- Berryessa/North San Jose.

On an average weekday, approximately 4,800 people exit BART at the Intermodal Station, based on 2019 BART ridership data.

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 in the Planning Area along Decoto Road and Alvarado-Niles Road, and serving the Intermodal Station, summarized in and shown on Figure 3.12-2.

Table 3.12-3: AC Transit Service Summary

<i>Line¹</i>	<i>Description¹</i>	<i>Weekday Hours¹</i>	<i>Weekday Headway¹</i>	<i>Weekend Hours¹</i>	<i>Weekday Headway¹</i>	<i>Weekday Daily Boardings within Planning Area²</i>
97	Bayfair BART to Union City BART	5:55 AM–11:55 PM	15–20 minutes	6:00 AM–11:45 PM	30 minutes	490
99	Hayward BART to Fremont BART	5:00 AM–7:00 PM	20 minutes	6:00 AM–12:48 AM	30 minutes	340
200	Fremont BART to Union City BART	6:20 AM–1:04 AM	30 minutes	7:29 AM–1:19 AM	30 minutes	220
216	Union City BART to Ohlone Newark	6:10 AM–8:58 PM	60 minutes	7:02 AM–7:52 PM	60 minutes	60
232	Fremont BART to Ohlone Newark	5:09 AM–7:58 PM	60 minutes	8:28 AM–9:19 PM	60 minutes	100
801	12th Street BART to Fremont BART	12:41 AM–6:17 AM	60 minutes	12:41 AM–9:20 AM	30 minutes	12

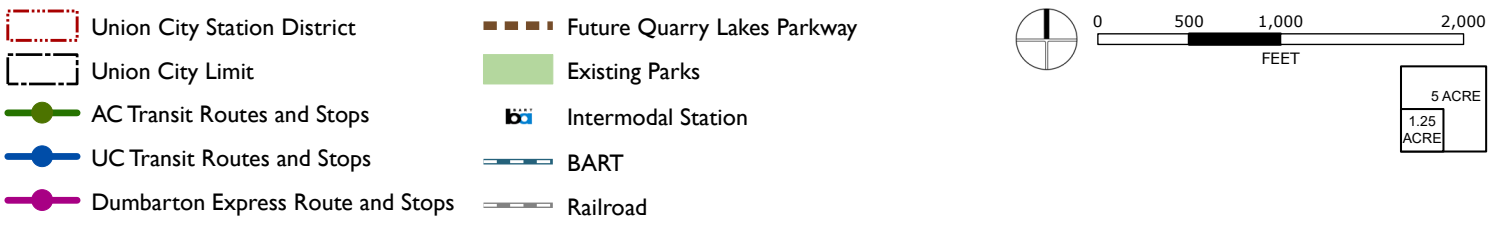
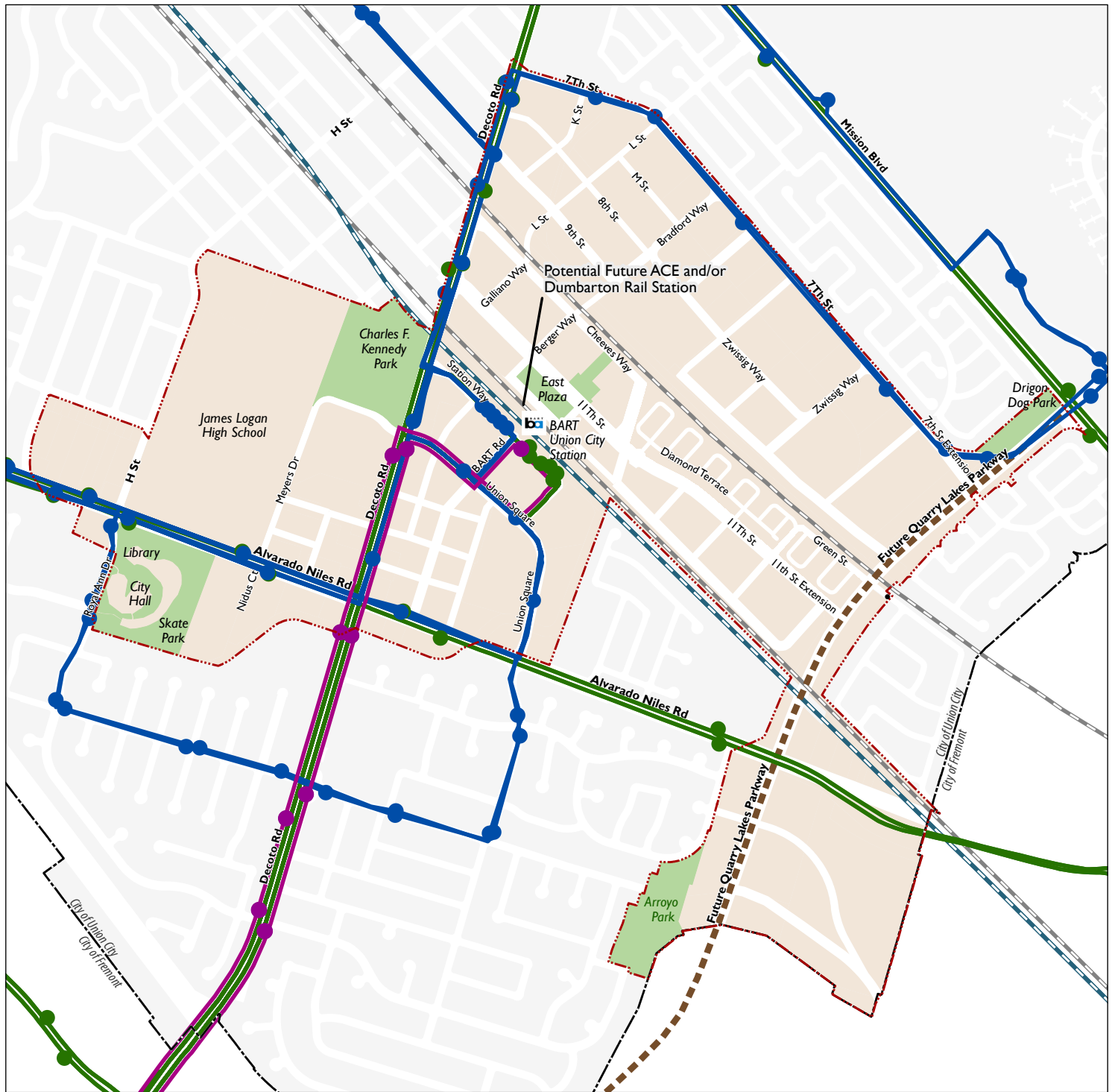
Notes:

1. Service characteristics as of winter 2020.

2. Spring 2019 ridership data

Source: AC Transit summarized by Fehr & Peers, 2021.

Figure 3.12-2: Existing Transit Service



Source: City of Union City, 2019; Alameda County GIS, 2019.

Dumbarton Express

DBX is the transbay service provider between the East Bay and the Peninsula. DBX operates two bus routes, both of which serve the Intermodal Station via the Dumbarton Bridge. Table 3.12-4 summarizes the characteristics of the two DBX routes. The DBX bus stops in the Planning Area are located on Station Way adjacent to the Intermodal Station and along Decoto Road.

Table 3.12-4: Dumbarton Express Service Summary

<i>Route¹</i>	<i>Description¹</i>	<i>Weekday Hours¹</i>	<i>Weekday Headway¹</i>	<i>Weekday Daily Boardings within Planning Area²</i>
DB	Stanford Oval to Union City BART	6:16 AM–8:43 PM	30 minutes	150
DBI	3475 Deer Creek Road to Union City BART	6:27 AM–8:36 PM	17–65 minutes	160

Notes:

1. Service characteristics as of winter 2020.
2. Spring 2019 ridership data

Source: AC Transit summarized by Fehr & Peers, 2021.

Union City Transit

The City operates Union City Transit, which provides bus service along nine routes within Union City. Five Union City Transit routes operate in the Planning Area, as summarized in Table 3.12-5 and as shown on Figure 3.12-2.

Table 3.12-5: Union City Transit Service Summary

<i>Route¹</i>	<i>Description¹</i>	<i>Weekday Hours¹</i>	<i>Headway¹</i>	<i>Weekend Hours¹</i>	<i>Headway¹</i>	<i>Weekday Daily Ridership²</i>
1	Union City Boulevard/ Dyer Street to Union City BART	4:33 AM–10:20 PM	30 minutes	7:45 AM–6:29 PM	30 minutes	340
2	Union City Boulevard/ Whipple Road to Union City BART	5:16 AM–9:03 PM	30 minutes	8:28 AM–6:10 PM	30 minutes	120
3	Union Landing to Union City BART	6:34 AM–8:29 PM	60 minutes	8:16 AM–6:09 PM	60 minutes	90
4	Union City BART to Union Landing	6:41 AM–8:36 PM	60 minutes	8:24 AM–6:14 PM	60 minutes	90
5	Union City Boulevard/	5:18 AM–9:52 PM	30 minutes	8:15 AM–5:59 PM	30 minutes	290

Table 3.12-5: Union City Transit Service Summary

<i>Route</i> ¹	<i>Description</i> ¹	<i>Weekday Hours</i> ¹	<i>Headway</i> ¹	<i>Weekend Hours</i> ¹	<i>Headway</i> ¹	<i>Weekday Daily Ridership</i> ²
	Dyer Street to Union City BART					

Notes:

1. Service characteristics as of winter 2020.

2. Fall 2018 ridership data

Source: Union City Transit summarized by Fehr & Peers, 2021.

Existing Bicycle System

The City’s *Pedestrian and Bicycle Master Plan* (approved in November 2021) identifies the following distinct types of bikeway facilities:

- **Class I Shared-Use Path**—A completely separate right-of-way designated for exclusive use by bicyclists and pedestrians.
- **Class II Buffered Bike Lane**—A restricted right-of-way designated for the use of bicycles with a striped buffer area that neither vehicles nor bicyclists should use.
- **Class II Bike Lane**—A restricted right-of-way designated for use by bicyclists, with a striped lane on the street. Vehicle parking and vehicle/pedestrian cross flow are permitted.
- **Class III Bicycle Boulevard**—Shared right-of-way with vehicular traffic on low-speed, low-volume streets, accompanied with traffic calming treatments.
- **Class III Bike Route**—A right-of-way designated by signs or pavement markings for shared use with motor vehicles.
- **Class IV Separated Bike Lane**—For the exclusive use of bicyclists, with physical separation with vertical protection between the bikeway and through vehicular traffic. The separation may include, but is not limited to, flexible posts, planters, curbs, or on-street parking.

Figure 3.12-3 shows the existing and proposed bicycle facilities in the Planning Area and surroundings. Bicycle access in the Planning Area is characterized by the Class II bike lanes along most major roadways, with a few Class I shared-use paths in some areas. The existing bicycle network in the Planning Area includes the following facilities:

- Class I shared-use paths along the Alameda Creek Trail
- Class I shared-use path parallel to Railroad Avenue between D and H Streets
- Class II bike lanes on Mission Boulevard south of Decoto Road
- Class II bike lanes on Decoto Road between Mission Boulevard and the I-880 Interchange
- Class II bike 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 bike lanes for the length of Union Square between Decoto Road and Alvarado-Niles Road
- Class II bike lanes on 11th Street between Decoto Road and Green Street
- Class II buffered bike lanes on Royal Ann Drive just west of Alvarado-Niles Road to Decoto Road
- Class II bike lanes on Osprey Drive between Alvarado-Niles Drive and Quarry Lakes Drive
- Class II bike lanes on Quarry Lakes Drive between Osprey Drive and Paseo Padre Parkway, with a gap near Roeding Avenue

Existing Pedestrian System

The Pedestrian facilities within the Planning Area include trails, sidewalks, crosswalks, and pedestrian signal heads. The Station Area Planning Area is centered on the Union City Intermodal Station, and the two major corridors near the station are Decoto Road and Alvarado-Niles Road. Both corridors have complete sidewalks on both sides of the roadway that are generally six feet wide. The five-lane cross sections of both corridors create long crossing distances, typically over 85 feet in length. There are relatively few public roads within the Planning Area, especially east of the Intermodal Station; therefore, crosswalks can be spaced over 1,000 feet apart. This can cause pedestrians to walk several hundred feet out of their way to cross in a marked and/or signalized crosswalks.

Decoto Road and Alvarado-Niles Road both have signalized crosswalks over 1,000 feet apart within the Planning Area. The following strategies are used to accommodate pedestrian crossings between the signalized crosswalks that are spaced apart:

- Decoto Road between the signalized crossings of 7th and 11 streets is about 1,500 feet. A Rectangular Rapid-Flashing Beacon (RRFB) is provided on Decoto Road at 9th Street, about 550 feet south of 7th Street.
- Alvarado Niles Road between the signalized crossing of Decoto Road and Union Square is about 1,200 feet. A pedestrian hybrid beacon¹ was installed on Alvarado-Niles Road about midway between the two signalized crossings to improve pedestrian connectivity along this segment of Alvarado-Niles Road. In addition, continuous fencing in the median of Alvarado-Niles Road discourages midblock pedestrians crossing.

7th Street also has relatively few cross-streets and crosswalks spaced over 1,000 feet apart. On 11th Street and Union Square, crosswalks are generally spaced 500 feet apart. The expected development along these corridors would result in shorter block lengths and additional crossing opportunities.

¹ The pedestrian hybrid beacon (also known as the High-Intensity Activated crosswalk, or HAWK) is a pedestrian-activated warning device located on the roadside or on mast arms over midblock pedestrian crossings. The beacon head consists of two red lenses above a single yellow lens.

Other barriers to pedestrian travel within the Planning Area include the at-grade Union Pacific Railroad (UPRR) tracks. One notable gap in the pedestrian network is access to the Intermodal Station from the east side due to the UPRR tracks (Oakland Subdivision).

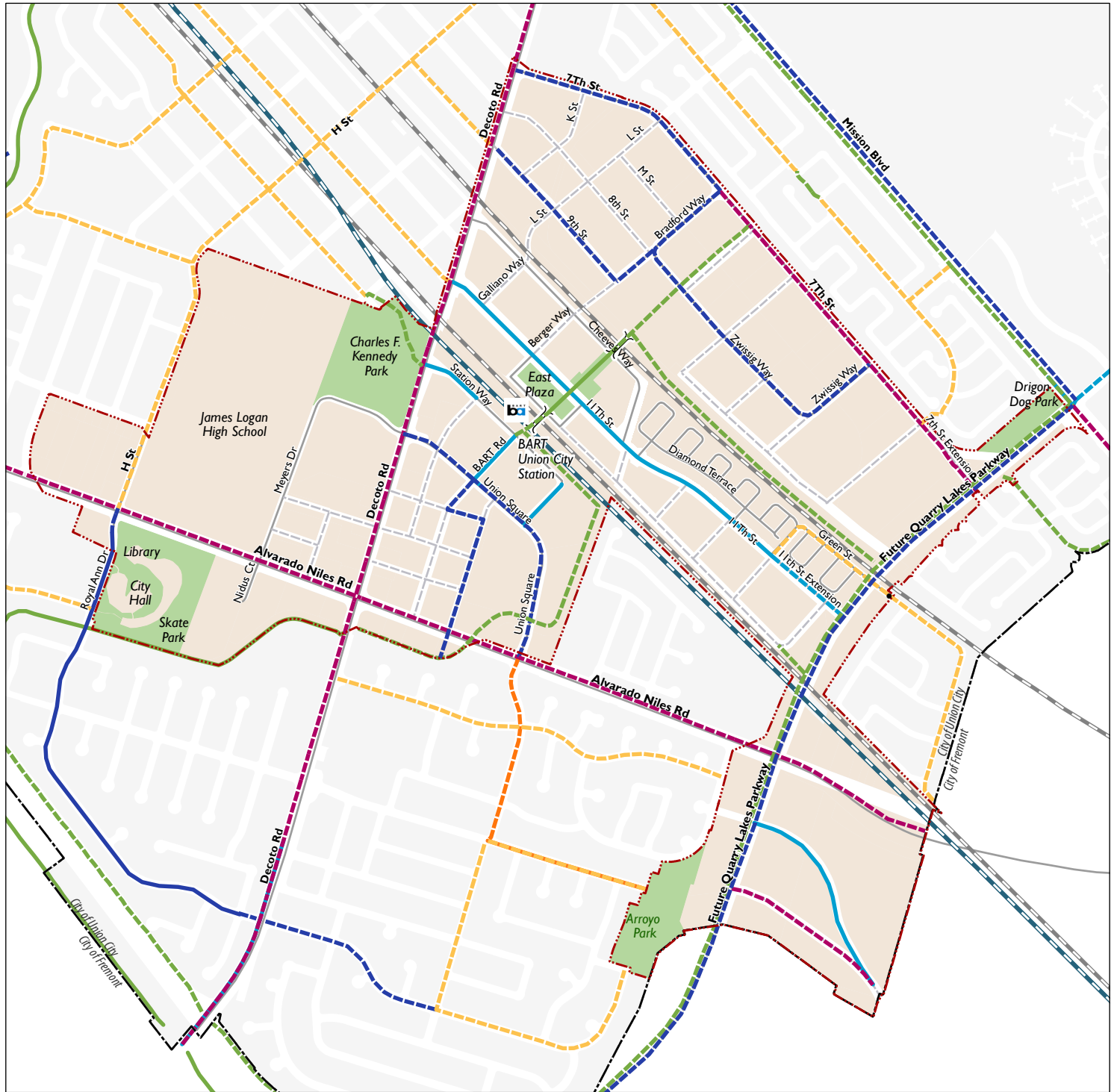
Other major sidewalk gaps in the Planning Area include:

- The east side of 7th Street between Daggett Avenue and the UC Transit Office Driveway
- Both sides of Cheeves Way for most of the length of the road
- The west side of Alvarado-Niles Road between Osprey Drive and Lotus Pond Common
- The west side of Quarry Lakes Drive between Osprey Drive and Roeding Avenue

The intersections in the Planning Area generally provide marked crosswalks and ADA-compliant ramps with truncated domes. However, the ramps are generally diagonal rather than directional, which are less comfortable for people with disabilities, senior citizens, and strollers as they enter crosswalks since diagonal ramps direct users towards the middle of the intersection.

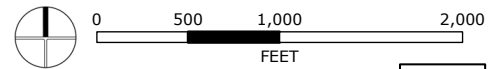
All signalized intersections include pedestrian signal heads and standard push buttons; however, most intersections provide non-audible push buttons and none provide vibrotactile push buttons. Pedestrian countdown signals are provided at the signalized intersections in the Planning Area, except on Alvarado-Niles Road at intersection with Mann Avenue/Union Square and Osprey Drive/Monterra Terrace.

Figure 3.12-3: Existing and Proposed Bicycle Network



- Union City Station District
- Union City Limit
- Existing Parks
- Intermodal Station
- BART
- Railroad
- Existing Street
- Proposed Street

- Shared-Used Path (Class I)
- Bicycle Lane (Class II)
- Buffered Bicycle Lane (Class II)
- Bicycle Route (Class III)
- Bicycle Boulevard (Class III)
- Separated Bike Lane (Class IV)
- Existing Bicycle Facilities
- Proposed Bicycle Facilities



New Non-Motorized Railroad Crossing

Source: City of Union City, 2019; Alameda County GIS, 2019.

Existing Goods Movement Network

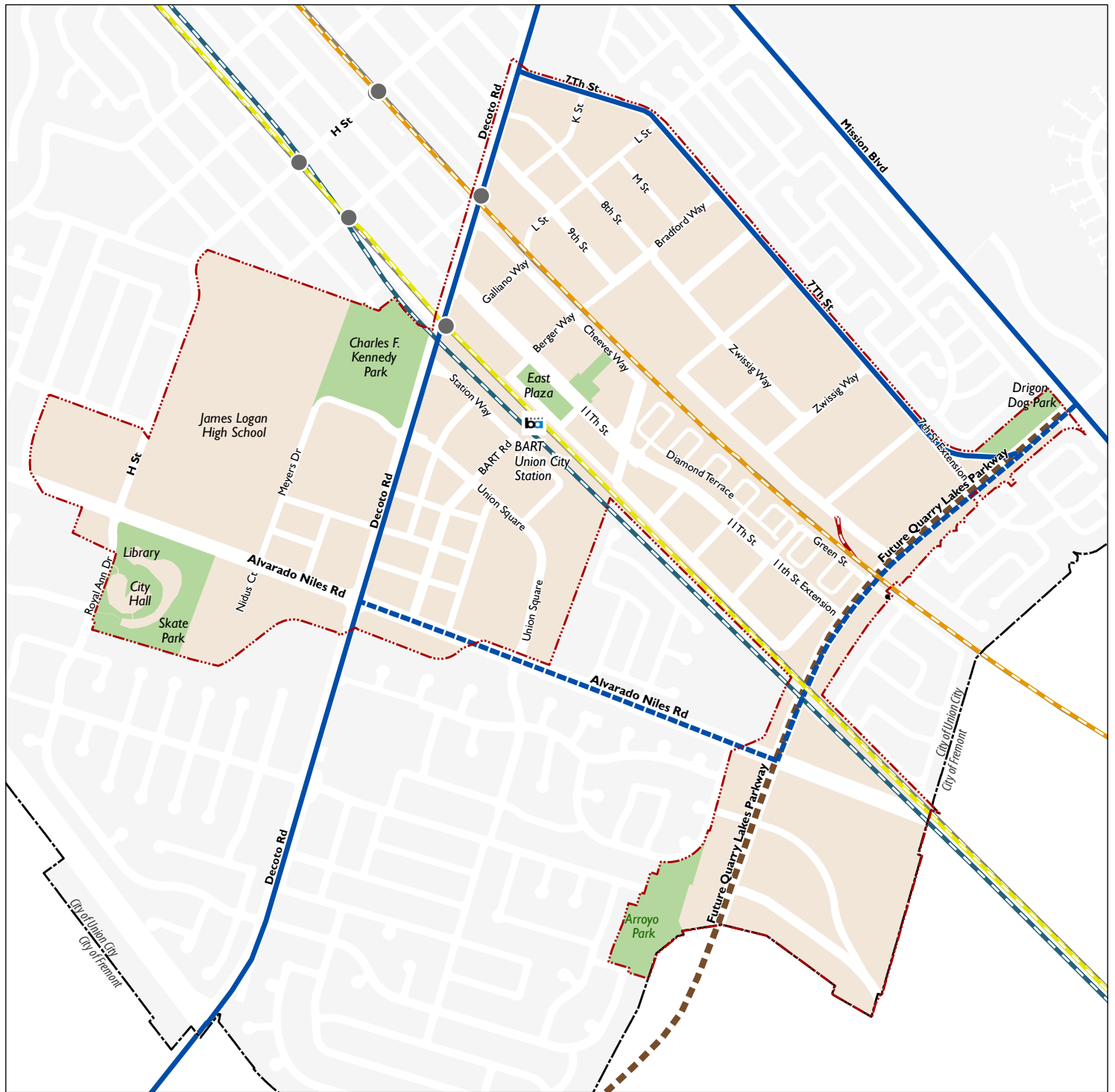
Figure 3.12-4 shows the goods movement network in the Planning Area, which is composed of designated truck routes and rail lines. The UC2040 Mobility Element identifies Mission Boulevard (SR 238), Decoto Road, 7th Street, and a portion of the future Quarry Lakes Parkway from Mission Boulevard to Alvarado-Niles Road as designated truck routes in the Planning Area and surroundings. Based on data collected in 2018 and summarized in Table 3.12-2, truck percentages vary between 3 and 10 percent for roadways. Furthermore, 7th Street has the highest truck percentage, at 10 percent (total vehicle volumes along 7th Street are lower than on nearby arterials), and 11th Street has the lowest truck percentage, at three percent.

The UPRR lines are the primary freight and passenger rail lines within the Planning Area, with the following two at-grade crossings on Decoto Road as shown on Figure 3.12-4:

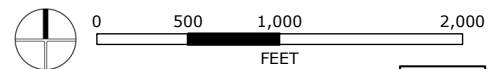
- The Niles Subdivision UPRR tracks, which cross Decoto Road just east of Cheeves Way
- The Oakland Subdivision UPRR tracks, which cross Decoto Road west of 11th Street and just east of the elevated BART tracks

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/ 11th Street Traffic Analysis and Decoto Road Traffic Signal Timing Study Memorandum (Kimley-Horn, June 2016). The 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.

Figure 3.12-4: Existing Goods Movement Network



- Union City Station District
- Union City Limit
- Existing Parks
- Existing Truck Route
- Proposed Truck Route
- At-Grade Railroad Crossing
- Spurs
- Niles Subdivision (UPRR)
- Oakland Subdivision (UPRR)
- Future Quarry Lakes Parkway
- b Intermodal Station
- BART
- Railroad



Source: City of Union City, 2019; Alameda County GIS, 2019.

Planned Transportation Network Changes

Several changes are planned for various transportation modes within and near the Planning Area as described below; these changes include projects planned by the City and/or other agencies, and are not related to the Proposed Plan; they would be implemented regardless of the Proposed Plan. 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.

Planned Roadway Changes

- **Quarry Lakes Parkway** – The Metropolitan Transportation Commission (MTC) 2019 Transportation Improvement Program (TIP) includes the proposed Quarry Lakes Parkway Project (also known as the East–West Connector), a three-mile circulation and connectivity improvement project that would connect Paseo Padre Parkway to the west with Mission Boulevard to the east. Adjacent to the Planning Area, the Quarry Lakes Parkway Project would construct a new four-lane roadway and a new shared-use path that would intersect Mission Boulevard, 7th Street, 11th Street, Alvarado-Niles Road, Quarry Lakes Drive, and Paseo Padre Parkway. All segments of Quarry Lakes Parkway would include continuous pedestrian sidewalks, on-street buffered bike lanes, and a parallel off-street, shared-use path for use by bicyclists and pedestrians. The Quarry Lakes Parkway Project is identified in the UC2040’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. The Quarry Lakes Parkway project has undergone separate environmental review and impacts of the project related to transportation are not applicable to the discussion in this EIR. The Alameda County Transportation Commission certified the Final EIR for the project in 2009. In addition, the City Councils of Union City and Fremont, each acting as Responsible Agencies under CEQA, accepted the certified Final EIR, and conditionally approved the project in the same timeframe.
- **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.
- **Decoto Road Multimodal Improvements** – The Alameda CTC evaluated near-term and long-term modifications to improve multi-modal access and circulation along segments of Decoto Road between Mission and Fremont Boulevard as part of the larger East 14th Street/Mission Boulevard and Fremont Boulevard Multimodal Corridor Project which extends between the San Leandro and Warm Springs BART stations. The Scoping Phase Recommendations Report (Alameda CTC, 2020) identifies several short-term and long-term improvements along the Decoto Road corridor. Such as rapid bus service along the corridor, Class IV separated bike lanes along the corridor, and improvements at intersections to benefit pedestrians and bicycles. In addition, Decoto Road would continue to provide two travel lanes in each direction with the implementation of these

improvements. Since these improvements have not been approved or fully funded, they are not assumed in the 2040 analysis for this Proposed Plan.

- **Station East Residential/Mixed Use Project Improvements** – The approved development project, which would consist of 974 multi-family residential units and up to 31,000 square feet of commercial space in the north portion of the Station East Subarea would complete the street network within the project area, install new signals at the Decoto Road/9th Street and L Street/7th Street intersections, upgrade the existing signal at the Decoto Road/7th Street intersection, and upgrade the at-grade Niles Subdivision railroad crossing on Decoto Road just east of Cheeves Way, including provision of advanced pre-emption.

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 – UC2040 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 (ACE), and/or the Dumbarton Rail. The San Mateo County Transit District is currently leading the Dumbarton Rail Corridor Project, which is evaluating the technical and financial feasibility of providing rail service between San Mateo and Alameda Counties via the Dumbarton rail bridge with service at the Intermodal Station. In addition, the recently completed Southern Alameda County Integrated Rail Analysis recommends extending ACE to the Intermodal Station. However, there were no plans or funding to expand the Intermodal Station to accommodate passenger rail at the time the NOP for this EIR was published, and therefore, this improvement is not assumed as part of this analysis.

Planned Bicycle and Pedestrian Changes

Quarry Lakes Parkway – The Quarry Lakes Parkway Project will provide Class II buffered bike lanes in both directions between Mission Boulevard and Paseo Padre Parkway. In addition, the project will implement a Class I shared-use path that connects Mission Boulevard to the existing Quarry Lakes Regional Park trail system.

Decoto Road Bicycle Improvements – UC2040 identifies a planned redesign of Decoto Road as a complete street, along with improvements to bicycle and pedestrian infrastructure within the Planning Area. Currently, the City is planning to convert the existing Class II bike lanes on Decoto Road to buffered bike lanes as part of a repaving project. This analysis assumes no other bicycle or pedestrian infrastructure improvements along Decoto Road, except upgrading the curb ramps to meet current ADA standards, where needed.

Oakland Subdivision Non-Motorized At-Grade Crossing – The City’s Pedestrian and Bicycle Master Plan identifies a future Class I shared-use path across the Oakland Subdivision Railroad tracks connecting the Intermodal Station directly to the east. Construction of this at-grade crossing, which will be limited to pedestrians and bicycles only started in 2021 and is expected to be completed in 2022; therefore, it is assumed as part of the 2040 conditions in this EIR.

Station East Residential/Mixed Use Project Improvements – The approved development project would provide buffered bike lanes along 7th Street between Bradford Way and Decoto Road and along Bradford Way and 8th Street.

Pedestrian and Bicycle Master Plan – The City’s Pedestrian and Bicycle Master Plan (PBMP), adopted in November 2021, recommends several bicycle network improvements in and around the Planning Area. The approved PBMP includes several improvements to the pedestrian and bicycle network in the Planning Area, which are assumed as part of the Proposed Plan and described later in this section.

REGULATORY SETTING

State

Senate Bill 743

SB 743 has 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. 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*, was adopted by MTC and ABAG on July 26, 2017. *Plan Bay Area 2040* is both the Bay Area’s Regional Transportation Plan (RTP) as well as its Sustainable Communities Strategy (SCS). Plan Bay Area grew out of “The California Sustainable Communities and Climate Protection Act of 2008,” which

requires each of the State's 18 metropolitan areas to reduce GHG emissions from cars and light trucks.

To that end, *Plan Bay Area 2040* recommends increasing non-auto travel mode share and reducing VMT per capita and per employee through promoting transit-oriented development, and investments in transit and active transportation modes. These strategies seek to not only improve mobility within the region, but also reduce regional and Statewide GHG emissions.

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.

Although MTC adopted *Plan Bay Area 2050* in October 2021, this analysis relies on *Plan Bay Area 2040* because it was the regulating policy document at the time that the NOP was published and the majority of the analysis for this EIR was completed. In addition, the Alameda CTC Model, which was used to estimate the VMT metrics is based on *Plan Bay Area 2040* and has not yet been updated to reflect *Plan Bay Area 2050*.

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.

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.

- **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 within and around the Planning Area are generally under the City's jurisdiction, except for Mission Boulevard (i.e., SR 238), which is under Caltrans jurisdiction. The City of Union City 2040 *General Plan* (UC2040) 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.

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.

UC2040 also identifies numerous implementation programs that provide a path forward for achieving the Mobility Element goals.

City of Union City Pedestrian and Bicycle Master Plan

The City's *Pedestrian and Bicycle Master Plan* (BPMP, adopted November 2021) recommended improvements for pedestrian and bicycle connections in Union City. Recommended improvements in the vicinity of the project are described beginning on page 3.12-20.

Impact Analysis

SIGNIFICANCE CRITERIA

For the purposes of this EIR, a significant impact would occur if the Proposed Plan would:

- Criterion 1: Conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, and bicycle and pedestrian facilities**
- Criterion 2: Conflict or be inconsistent with CEQA Guidelines Section 15064.3, Subdivision (b)**
- Criterion 3: Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible land uses (e.g., farm equipment)**
- Criterion 4: Result in inadequate emergency access**

ASSUMPTIONS AND METHODOLOGY

Land Use and Transportation Network Assumptions

Consistent with Chapter 2, Project Description, the analysis presented in this section assumes that the implementation of the Proposed Plan would result in 5,650 residential units with a population of 14,400 and 5,427,000 square feet of non-residential space with 18,200 jobs at buildout in the Planning Area.

The Proposed Plan also includes various improvements to the multi-modal transportation network in the Planning Area, which are primarily focused on improving the non-automobile transportation modes. This EIR assumes these modifications to the transportation network as part of the Proposed Plan. The major modifications to the transportation network include:

- New traffic signals on Decoto Road midway between Alvarado-Niles Road and Union Square and on Alvarado-Niles Road, midway between Decoto Road and Union Square
- A new RRFB on Royal Ann Drive at the existing trail crossing
- Completion of the existing sidewalk gaps in the Planning Area, as listed on page 3.12-16
- Completion of a grade-separated non-motorized crossing of the Niles Subdivision UPRR tracks to improve the connectivity of the Station East Subarea to the rest of the Planning Area and the BART Station
- Completion of the proposed bicycle network, as shown on Figure 3.12-3, including Class IV separated bike lanes on Decoto Road, Alvarado Niles Road, and 7th Street south of Bradford Way

VMT Estimation

This analysis uses the Alameda CTC Model to estimate VMT efficiency metrics. Travel demand models represent neighborhoods in transportation analysis zones (TAZs). The Alameda CTC Model includes approximately 43 TAZs in Union City, which vary in size from a few blocks near the BART station to larger geographic areas farther away. TAZs are used in transportation planning models for transportation analysis and other planning purposes.

The Alameda CTC Model uses various socio-economic variables, such as number of households and residents by household type, number of jobs by employment category at a TAZ level and transportation system assumptions such as type of roadway, number of lanes, major bicycle and pedestrian facilities, transit service capacity and frequency to forecast various travel characteristics, such as daily and peak-hour travel volumes and VMT.

The Alameda CTC Model uses a four-step modeling process that looks at trip generation, trip distribution, mode split, and trip assignment. This process accounts for changes in travel patterns due to future growth and expected changes in the transportation network. The Alameda CTC Model assigns all predicted trips within, across, to, or from the nine-county San Francisco Bay Area region to the roadway network and transit system by mode (i.e., single-occupant or carpool vehicle, biking, walking, or transit) and transit carrier (i.e., bus, rail) for a given scenario. The VMT generated by each TAZ can be estimated by tracking the number of trips and the length of each trip generated by the TAZ.

The Alameda CTC Model version released in May 2019, which incorporates land use data and transportation network improvements consistent with *Plan Bay Area 2040* (i.e., the Sustainable Communities Strategy), was used to develop VMT estimates for this EIR. Although MTC adopted *Plan Bay Area 2050* in October 2021, this analysis relies on *Plan Bay Area 2040* because the Alameda CTC has not yet updated the Alameda CTC Model to be consistent with *Plan Bay Area 2050* and *Plan Bay Area 2040* was the governing document when the NOP for this EIR was published.

VMT estimates were developed for the following scenarios:

- **Baseline (2020) Conditions** – This scenario represents the land uses and transportation network within and outside of the Planning Area under current conditions.
- **2040 Plus Plan Buildout Conditions** – This scenario assumes the buildout of the Proposed Plan in the Planning Area as described above, the buildout of the UC2040 in the remaining

parts of Union City outside of the Planning Area, and the *Plan Bay Area 2040* assumptions outside of Union City. Regional planned transportation improvements include funded and approved transportation improvements as documented in the *Plan Bay Area 2040* and included in the Alameda CTC Travel Demand Model, which are described under the Planned Transportation Network Changes subsection on page 3.12-19.

As a regional planning tool, the Alameda CTC Model was developed through an extensive model validation process. The model is intended to replicate existing vehicular travel behavior, and can provide a reasonable estimate of VMT generated in various geographic areas on a typical weekday. It can also estimate future VMT that reflects planned local and regional land use and transportation system changes. As a result, the Alameda CTC Model was used to estimate the VMT and the VMT efficiency metrics generated by the Planning Area and Union City under the Baseline (2020) and 2040 Plus Plan Buildout conditions.

RELEVANT GOALS AND POLICIES

The following goals and policies of the Proposed Plan are relevant to potential transportation impacts.

Land Use

- G-LU-1 **Variety of Land Uses.** Enhance the Station District as a mixed-use area with a variety of housing types, employment generating uses and commercial uses including retail, restaurants, and services .
- G-LU-3 **Walkable Destination.** Create a compact, walkable, pedestrian oriented Station District with connections to transit.
- P-LU-5 **Diverse Housing Types.** Promote a diverse range of housing types to accommodate a variety of household types.
- P-LU-6 **Supportive Housing Amenities.** Facilitate opportunities to incorporate innovative design and program features into affordable housing developments, such as on-site health and human services, community gardens, car-sharing, and bike facilities. Support the development of projects that serve homeless and special needs populations.

The Core

- P-LU-13 **Mix of Uses.** Allow for a mix of uses to support a healthy jobs / housing balance and provide for both a day and nighttime population within the area.

Station East

- P-LU-18 **New Connections.** Work with developers to provide a robust circulation system for all users including the provision of new streets with bicycle facilities and wide sidewalks, paseos, trails, including greenways where appropriate, and a

pedestrian/bicycle connection over the Niles Subdivision to help foster connections, open spaces, and direct access to the Intermodal Station.

The Marketplace

P-LU-21 **Walkable Destination.** Create a vibrant, walkable destination with community-serving and specialty-retail, dining, and entertainment uses, new streets, and plazas with a complementary mix of residential, office, and other uses.

Gateway

P-LU-25 **Mix of Housing Types.** Support a mix of housing types including an “agri-hood” concept, where housing and on-site community facilities are integrated with agricultural uses, such as community gardens, that could be public or private.

Civic Center

P-LU-29 **Focus on Improved Connections.** Encourage existing civic uses to become more cohesively integrated with the greater Station District, with new pedestrian and bicycle connections.

Mobility

G-M-1 **Multi-modal Street Network.** Provide a well-connected street network that serves all users and prioritizes safety and multi-modal access and connectivity.

P-M-2 **New Signals.** As part of the new developments in the Marketplace Subarea, install new traffic signals on Decoto Road midway between Alvarado-Niles Road and Union Square and potentially on Alvarado-Niles Road midway between Decoto Road and Union Square, replacing the existing pedestrian hybrid beacon (HAWK) to improve the multi-modal access and connectivity in the area.

G-M-2 **Pedestrian Network.** Complete the pedestrian network within the Planning Area to provide a safe, efficient, and comfortable system for trips within the Planning Area and surrounding areas.

P-M-4 **Sidewalk Gaps.** Complete the existing sidewalk gaps. Require new development to install sidewalks along their frontages.

P-M-5 **Decoto Road Pedestrian Improvements.** Coordinate with Alameda County Transportation Commission to implement pedestrian improvements along Decoto Road corridor.

P-M-6 **Improve Trail Crossing.** Install a Rectangular Rapid-Flashing Beacon (RRFB) at the existing trail crossing on Royal Ann Drive.

P-M-7 **Non-Motorized Crossing of Railroad Tracks.** Prioritize the completion of the non-motorized crossing (future pedestrian bridge/tunnel) of the Niles Subdivision

UPRR tracks to improve the connectivity of the Station East Subarea to the Core Station Area.

- G-M-3 **Bicycle Network.** Complete the bicycle network within the Planning Area to provide a safe, connected, and comfortable system for trips within the Planning Area and surrounding areas.
- P-M-9 **Implement the 2021 BPMP.** Implement the policies and complete the bicycle network recommended in the adopted BPMP and shown in Figure 5.12 to connect key locations within the Planning Area.
- G-M-4 **Transit Service.** Ensure frequent, safe, and reliable transit service within the Station District.
- P-M-12 **Bus Stops.** Coordinate with AC Transit and UC Transit to identify and improve bus stops within the Station District. Improvements may consist of:
- Relocating bus stops to improve bus operations, such as relocating stops from the near-side to the far-side of signalized intersections and/or improving pedestrian access, such as relocating bus stops closer to signal-protected crossings.
 - Providing bus stop amenities, such as bus stop signs, wayfinding maps, bench and/or shelter pursuant to *AC Transit Multimodal Corridor Guidelines*.
 - Requiring projects that develop or redevelop sites with existing and/or proposed bus stops along their frontage(s) to relocate and/or upgrade bus stops consistent with this policy.
- P-M-13 **Bicycle Access at Intermodal Station.** Coordinate with BART to ensure adequate bicycle parking at the Intermodal Station and that the Intermodal Station provides safe and convenient pedestrian and bicycle connections that connect to the adjacent streets and paths.
- P-M-14 **Mobility Hubs.** Coordinate with BART and Alameda CTC on implementing a mobility hub at the Intermodal Station, which would integrate various transportation services and amenities to offer convenient first and last-mile non-automobile connections at the Intermodal Station.
- G-M-5 **Goods Movement.** Balance access and circulation for trucks with the needs of other street users.
- P-M-16 **QLP Truck Route.** After the completion of Quarry Lakes Parkway, encourage both local and through trucks to use the parkway between Mission Boulevard and Alvarado-Niles Road..
- P-M-17 **Advanced Railroad Pre-emption.** Implement advanced pre-emption at the at-grade Niles Subdivision crossing on Decoto Road.

- G-M-6 **Parking.** Proactively manage the on- and off-street parking supply to meet demand, while minimizing the land dedicated to and the costs associated with parking.
- P-M-22 **Unbundled parking for new developments.** Allow unbundled automobile parking in residential developments with common parking facilities, where residents pay for parking separately from the sales price or rent for the housing unit.
- P-M-24 **Shared Parking for New Developments.** Encourage mixed use developments to provide shared parking with minimal assigned parking, to minimize the total amount of new parking constructed.
- G-M-7 **Reduce Single-occupant Automobile Travel.** Reduce the reliance on single-occupant automobiles and the parking supply by incentivizing other modes of travel.
- P-M-27 **TDM Plans.** Require developments generating more than 50 peak hour trips to develop and implement a TDM Plan, consisting of both infrastructure improvements and operational strategies, to reduce the number of drive-alone trips.
- P-M-28 **Design Features that Reduce Automobile Use.** Update zoning requirements to ensure that the design of future developments include features that reduce the use of automobiles, such as on-site showers and lockers for non-residential developments, on-site childcare center for large employers, and on-site business center for residential developments.

IMPACTS

Impact 3.12-1 Implementation of the Proposed Plan would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, and bicycle and pedestrian facilities (*Less than Significant*)

The Mobility chapter of the Proposed Plan includes goal G-M-1, which emphasizes the completion of a well-connected street network that “serves all users and prioritizes safety and multi-modal access and connectivity.” The Proposed Plan also includes goals G-M-2, G-M-3, and G-M-4, which emphasize the completion of the pedestrian, bicycle, and transit networks, respectively, and goals G-M-6 and G-M-7 which aim to reduce the reliance on single-occupant motor-vehicle travel through managing the parking supply and incentivizing other modes of travel. Consistent with the local, regional, and State plans and policies, these goals promote and encourage the use of pedestrian, bicycle, and transit modes over single-occupant automobiles.

In support of the proposed goals described above, the Proposed Plan includes a wide variety of policies. Specifically, policies P-M-2, P-M-4, P-M-5, P-M-6, P-M-7, and P-M-9 aim to facilitate the implementation of pedestrian and bicycle improvements and connectivity projects, which are

consistent with UC2040 goals M-1 and M-2 and Policies M-1.8, M-1.9, M-2.2 and M-2.3. Proposed policies P-M-12, P-M-13, and P-M-14 would encourage the use of transit modes by improving transit facilities and access to transit and are consistent with UC2040 goal M-3 and policies M-3.2, M-3.9, M-3.13, and M-3.14. Proposed policies P-M-22, P-M-24, and P-M-25 would control and manage the parking supply within the Planning Area to ensure provision adequate parking that would not encourage excessive automobile ownership and automobile trips; these policies are consistent with UC2040 goal M-6, and policies M-6.1 and M-6.7. Proposed policies P-M-27 and P-M-28 aim to encourage the use of non-automobile modes through requiring programs, such as TDM measures, that incentivize the use of these modes and are consistent with UC2040 goal M-5 and policies M-3.14 and M.5-1.

The Mobility chapter policies are supported by complementary goals and policies in Land Use chapter, such as G-LU-1 and G-LU-3, and P-LU-5, P-LU-6, P-LU-13, P-LU-17, P-LU-21, P-LU-24, and P-LU-27. The goals and policies of the Land Use and Mobility chapters of the Proposed Plan combined would promote and encourage transit oriented, mixed-use in-fill urban development that encourage walking, bicycling, and transit trips, as well as shorter trips. The Proposed Plan would also improve the pedestrian, bicycle, and transit infrastructure in the Planning Area, and include programs that reduce the parking requirements and require implementation of TDM measures. Thus, in addition to being consistent with local policies and plans as described above, the Proposed Plan is consistent with State and regional policies, such as SB 743 and *Plan Bay Area 2040*, which aim to reduce the impact of the transportation system on the environment through promoting and encouraging the use of non-automobile travel modes.

Considering that the Proposed Plan would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, and bicycle and pedestrian facilities, impacts would be less than significant.

Mitigation Measures

None required.

Impact 3.12-2 Implementation of the Proposed Plan would conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b). (Significant and Unavoidable)

CEQA Guidelines Section 15064.3 requires that the determination of significance for transportation impacts be based on VMT instead of a congestion metric such as LOS. The change in the focus of transportation analysis is the result of SB 743. OPR's Technical Advisory provides recommendations for implementing Section 15064.3 of the CEQA Guidelines related to VMT. OPR recommends that if a project does not achieve a level of 15 percent or more below regional or citywide VMT, it may indicate a significant transportation impact. For the purposes of this EIR, the following thresholds of significance, which are consistent with OPR's Technical Advisory, are used to determine if the Implementation of the Proposed Plan would have a significant impact under Criterion 2:

- For residential uses, the implementation of the Proposed Plan would result in substantial additional VMT if it would exceed existing citywide household VMT per capita minus 15 percent
- For office uses, the implementation of the Proposed Plan would result in substantial additional VMT if it would exceed the existing citywide commute VMT per worker minus 15 percent
- For retail and other uses, the implementation of the Proposed Plan would result in substantial additional VMT if it would exceed existing citywide Total VMT per service population minus 15 percent

Table 3.12-6 summarizes the VMT efficiency metrics listed above for the current conditions in the Planning Area and the buildout of the Proposed Plan as estimated by the Alameda CTC Model. The table also compares the VMT efficiency metrics for the Planning Area with the citywide averages and a VMT 15 percent below the citywide averages, which are the threshold used to determine the significance of the VMT impact.

Table 3.12-6: Planning Area VMT Metrics

	<i>Household VMT per Capita</i>	<i>Home-Work VMT per Worker</i>	<i>Total VMT per Service Population</i>
Planning Area 2020 Baseline	23.3	13.2	26.1
Planning Area 2040 Buildout ^{1,2}	19.1	11.1	26.3
Union City 2020 Baseline Average	23.7	15.4	27.1
15% below Baseline Citywide Average (Threshold of Significance)	20.1	13.1	23.0
Significant Impact?	No	No	Yes

Notes:

1. Based on a residential population of 14,400.
2. Based on total employment of 18,200 workers.
3. items in **bold** indicate exceedance of thresholds of significance.

Source: Fehr & Peers, 2021.

As shown in Table 3.12-6, the implementation of the Proposed Plan would reduce the Household VMT per Capita in the Planning Area by about 18 percent from 23.3 under 2020 Baseline conditions to 19.1 under 2040 Buildout conditions, which would be below the threshold of significance of 20.1 (15 percent below the existing citywide average), indicating a less than significant impact.

For commute VMT per worker, the implementation of the Proposed Plan would reduce the commute VMT per worker for the Planning Area by about 15 percent from 13.2 under 2020 Baseline conditions to 11.1 under 2040 Buildout conditions, which would be below the threshold of significance of 13.1 (15 percent below the existing citywide average), indicating a less than significant impact.

For total VMT per service population, the implementation of the Proposed Plan would increase the total VMT per service population in the Planning Area by less than one percent from 26.1 under

2020 Baseline conditions to 26.3 under 2040 Buildout conditions, which would be about 13 percent above the threshold of significance of 20.1 (15 percent below the existing citywide average), indicating a potential significant impact. Total VMT captures both work and non-work related trips, and reflects the continued presence of retail, public (such as civic, library, and school), and similar uses in the Planning Area, many of which attract trips citywide or from the sub-region, and are less sensitive to transit compared to work trips.

Note that the VMT metrics presented in Table 3.12-6 are based on the Alameda CTC Model, which is a regional travel demand model and only accounts for the built environment variables to which the model is sensitive. Additional Proposed Plan policies supporting variables the model is not sensitive to (such as connectivity within neighborhoods, presence of bicycle and pedestrian facilities, limited parking supply, and transportation demand management (TDM) measures) may not be reflected in these estimates.

The Proposed Plan encourages higher-density and mixed-use developments in proximity to the Union City Intermodal Station, connectivity between neighborhoods and to transit, and walkable design that compliments the existing natural and built environment to reduce VMT. The Proposed Plan further provides the policy framework to guide future development toward land uses that support walking, biking, and transit ridership (goals G-LU-1 and G-LU-3, policies P-LU-13, P-LU-17, P-LU-21, P-LU-24, and P-LU-27).

In addition to the proposed land use strategy, the Mobility chapter of the Proposed Plan includes multiple policies to reduce the demand for vehicle travel within and through the Planning Area, as well as work with local, regional, and state agencies to implement regional transportation improvements that encourage the use of non-automobile travel modes. The Proposed Plan places a greater emphasis on active transportation infrastructure such as separated bike lanes and enhanced pedestrian crossings, improved transit facilities and services, and ADA accessibility (goals G-M-1, GM-2, G-M-3, G-M-4, policies P-M-2, P-M-5, P-M-6, P-M-7, P-M-9, P-M-12, P-M-13, P-M-14, P-LU-5, P-LU-6). The Proposed Plan also includes maximum parking requirements, goal G-M-6, and policies P-M-22 and PM-24, which aim to discourage automobile usage. Policies P-M-27 and P-M-28 would also require developments to implement TDM measures. Additionally, proposed policies strive to develop a multi-modal transportation network that would provide transportation alternatives to the single-occupant vehicle (goals G-M-1, G-M-7, policies P-M-12, P-M-13, P-M-14).

The City shall implement all policies identified in the Land Use and Mobility chapters of the Proposed Plan to reduce the demand for automobile travel within and through the Planning Area, as well as work with local and regional agencies to implement regional transportation improvements. Additionally, future developments would be required to implement TDM measures.

Although the implementation of these strategies can be expected to reduce the total VMT per service population generated by typical uses in the Planning Area and reduce the magnitude of the impact, their effectiveness cannot be accurately estimated for the expected developments in the Planning Area, because the detailed characteristics of these future development and/or the specific strategies implemented by these future developments cannot be known at this time. Thus, this EIR conservatively assumes that the VMT reduction due to implementation of these strategies would

not be adequate to reduce the impact to a less-than-significant level. Therefore, this impact would be significant and unavoidable.

The program-level VMT impact described above does not preclude the finding of less-than-significant impact for future development projects that achieve VMT below the applicable thresholds of significance. Considering that the implementation of the Proposed Plan would result in household VMT per resident and commute VMT per worker lower than the citywide averages, and that the Proposed Plan includes policies and infrastructure improvements that would further reduce the VMT generated in the Planning Area, it is expected that many future developments would achieve the applicable VMT thresholds of significance.

Mitigation Measures

As described above goals and policies in the Proposed Plan are designed to reduce VMT in the Planning Area through multi-modal transportation improvements, higher-density and mixed-use development, and trip reduction measures. While the VMT reduction measures embedded in the proposed goals and policies would substantially reduce household VMT per capita and home-work VMT per worker over baseline conditions, even with implementation of these VMT reduction measures, the total VMT per service population in the Planning Area would not achieve the required 15 percent reduction as recommended by the OPR Technical Advisory. There are no other feasible mitigation measures available because the Proposed Plan emphasizes development designed to reduce VMT and contains goals and policies aimed at minimizing VMT. Impacts would be significant and unavoidable.

Significance After Mitigation: Significant and unavoidable.

Impact 3.12-3 Implementation of the Proposed Plan 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*)

As described above, the Mobility chapter of the Proposed Plan includes goals G-M-1, G-M-2, G-M-3, and G-M-4, to improve the overall safety of the transportation network as well as the safety for non-automobile travel modes. The Proposed Plan would enable construction of new developments and new transportation facilities, as well as modifications to existing transportation facilities. Since the Proposed Plan is a program-level plan, the design elements of individual future developments and new transportation facilities are not known. However, all future public and private improvement projects and transportation facilities would be subject to additional review and approval to ensure safety. Through the design and engineering review process, City staff and other potential jurisdiction staff will evaluate development proposals as well as modifications to the existing transportation facilities and new proposed facilities to ensure public health and safety by ensuring adequate and safe sidewalks or crosswalks, dedicated and protected bicycle facilities, realigning sharp curves, prohibiting certain movements, signaling intersections, and improving sight distance, among other measures. All new streets and redesign of existing streets will be completed according to applicable federal, State, and local design standards, such as the California Manual on Uniform Traffic Control Devices and the California Highway Design Manual.

Furthermore, most new transportation facilities and redesign of existing facilities in the Proposed Plan are aimed at improving conditions for various modes. Proposed policies P-M-4, P-M-5, P-M-6, and P-M-7 would enhance the pedestrian network, proposed policy P-M-9, which would complete the bicycle network within the Planning Area, would include facilities such as Class IV separated bike lanes on Decoto Road and Alvarado Niles Road, and proposed policy P-M-17 would implement advanced railroad pre-emption at the at-grade Niles Subdivision railroad crossing on Decoto Road.

The Proposed Plan includes residential, office/R&D, and commercial uses that would be generally consistent with the existing and future uses in the Planning Area and surroundings. Although parts of the Station East Subarea are currently predominantly industrial, the Proposed Plan envisions their conversion to residential and office/R&D uses. As a result, 7th Street, which is the primary corridor in the Station East Subarea, currently has a high percentage of truck traffic, as shown in Table 3.12-2. As the Subarea converts from predominately industrial to residential and office/R&D uses, the truck volumes are expected to decrease, and the passenger vehicle as well as pedestrian and bicycle volumes are expected to increase. Acknowledging the use changes in the Subarea, proposed policy P-M-16 recommends reclassifying 7th Street from an arterial to a primary collector to be more compatible with the expected adjacent uses along the corridor.

Considering that the Proposed Plan would not substantially increase hazards due to design features and that it would be compatible with existing uses in the area, impacts would be less than significant.

Mitigation Measures

None required.

Impact 3.12-4 Implementation of the Proposed Plan would not result in inadequate emergency access. (*Less than Significant*)

The nearest fire station to the Planning Area is Alameda County Fire Station 33, located adjacent to the Planning Area on 7th Street, about 500 feet south of Decoto Road. It is expected that emergency response vehicles from this fire station would respond to most emergency calls in the Planning Area. However, emergency vehicles from other locations may also respond to emergency calls.

The Proposed Plan includes construction of new streets within the Planning Area and modifications to existing roadways, such as adding cycletracks on Decoto Road, Alvarado-Niles Road, and 7th Street. Although the new streets or the modifications to the existing streets have not yet been designed, they will be designed consistent with applicable regulations to accommodate emergency vehicles including turns at intersections. All through streets would provide adequate space for other vehicles to pull over and allow emergency vehicles to pass without blocking the streets since California law requires drivers to yield the right-of-way to emergency vehicles and remain stopped until the emergency vehicle passes. The Proposed Plan is expected to minimize cul-de-sacs and allow existing and future developments to be accessed from at least two routes. Therefore, if one route is inaccessible, emergency vehicles could use another route to access a

building. Thus, emergency vehicles would continue to use the existing streets as well as new streets to access all areas within the Planning Area.

In addition, the Proposed Plan is a program-level plan that does not directly address project-level components that will be required to provide adequate emergency access. City staff, including emergency responders, review all development applications to ensure that applicable requirements are met, including provisions for adequate access for emergency responders and response vehicles, consistent with the Fire Code.

Considering the Proposed Plan's accommodation of emergency vehicles in existing and future streets, and the established procedures for reviewing project-level emergency access needs, impacts would be less than significant.

Mitigation Measures

None required.

3.13 Utilities and Service Systems

This section assesses potential environmental impacts from future development under the Proposed Plan as related to public utilities, including water, wastewater, and stormwater systems, and solid waste services. This section describes existing water, wastewater, stormwater, and solid waste infrastructure and services in the Planning Area, as well as relevant federal, State, and local regulations and programs.

Several responses to the Notice of Preparation (NOP) were received regarding topics addressed in this section. Alameda County Water District (ACWD) commented that ACWD water efficiency requirements and water service/submetering should be referenced. Additionally, several commenters suggested that alternatives to storm water detention ponds be considered for recharging the groundwater basin. These comments are addressed under Impact 3.13-1 and Impact 3.13-2 below.

Environmental Setting

PHYSICAL SETTING

Water System

Alameda County Water District

Facilities and Sources

ACWD manages 900 miles of water pipelines and manages 13 reservoirs and tanks.¹ The average daily production in Fiscal Year 2019-2020 was approximately 37 million gallons per day (mgd) and the maximum daily production was approximately 56.75 mgd.²

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

¹ Alameda County Water District. 2021. ACWD Fact Sheet. Available: <https://www.acwd.org/93/Fact-Sheet>. Accessed: June 23, 2021.

² Ibid.

San Francisco Regional Water System, and 40 percent from local supplies.³ 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.

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.⁴

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.⁵

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

³ Ibid.

⁴ Alameda County Water District. 2021. ACWD Fact Sheet. Available: <https://www.acwd.org/93/Fact-Sheet>. Accessed: June 23, 2021.

⁵ Alameda County Water District. 2021. Alameda County Water District Urban Water Management Plan 2020-2025. Available: <https://www.acwd.org/DocumentCenter/View/3816/Final-2020-2025-UWMP>. Accessed: June 23, 2021.

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.

Water for the Planning Area is delivered through a 24-inch and 16-inch transmission main in Alvarado-Niles Road, and the 24-inch transmission main continues north to serve Decoto Road and 7th Street, where it then branches into smaller mains serving the remaining Study Area. There are also 12-inch transmission mains through Union Square, Zwissig Way, and 11th Street, all of which appear to provide redundancy to the system by connecting back into one of the 24-inch transmission mains.

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:⁶

- 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.⁷
- 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.⁸
- 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.⁹

⁶ Rincon Consultants, Inc. 2040 Union City General Plan Update Environmental Impact Report. November 2019.

⁷ Alameda County Water District. 2021. ACWD Fact Sheet. Available: <https://www.acwd.org/93/Fact-Sheet>. Accessed: June 23, 2021.

⁸ Ibid.

⁹ Ibid.

- 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 3.13-1 provides a summary of the future projections in terms of the water supply versus water demand from 2020 to 2045.

Table 3.13-1: District Estimated Future Water Demands (AFY)

	<i>2020</i>	<i>2025</i>	<i>2030</i>	<i>2035</i>	<i>2040</i>	<i>2045</i>
Water Supply	68,100	68,200	68,200	68,300	68,300	68,200
Water Demand	58,600	60,900	60,400	60,100	60,100	67,600
Difference	9,500	7,300	7,800	8,200	8,200	600

Source: Alameda County Water District, 2021. Available: <https://www.acwd.org/DocumentCenter/View/3816/Final-2020-2025-UWMP>.

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.

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.¹⁰

¹⁰ Union Sanitary District. 2021. Mission, Organization, Facts, and History. Available: <https://www.unionsanitary.com/about-us/about-us/mission-facts-history>. Accessed: June 23, 2021.

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 356,823 people.¹¹ In 2020, USD had approximately 116,896 connections.

USD owns and maintains a system that consists of gravity and pressure pipes, pumping facilities, detention facilities and the Alvarado Treatment Plant, which is located at the west end of Benson Road in Union City, west of the Planning Area. 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.^{12,13} 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).

The Planning Area is primarily served by a 27-inch trunk gravity main with CIPP liner in Alvarado-Niles Road (Alvarado-Niles 27-inch), which carries wastewater flows west through the Planning Area, across (beneath) I-880 Freeway and to the Alvarado Treatment Plant, approximately 4-miles to the west. The 2017 Sewer Master Plan Update did not recommend any trunk sewer capacity improvements at the time in the Alvarado Basin.

In addition to the Alvarado-Niles 27-inch, there is a 15-inch gravity line in 7th Street (Seventh 15-inch) that flows from west to east before turning to the southeast following Black Mountain Circle, where there is increase to a 21-inch main. It then continues to the southwest along King Avenue before turning west running adjacent to railroad tracks, where it increased to a 24-inch main and then crosses under the tracks and continues south along Saltillo Place and Kraftile Road. The 24-inch line then crosses (beneath) the BART tracks and is collected by the Alvarado-Niles 27-inch line. USD updated their Master Plan in 2017 and it indicates a future capacity the 10 to 15-inch main located on Zwissig Way and 7th Street in the Planning Area, north of Alvarado-Niles Road. The report indicated the predicted capacity deficiency is contingent upon future loads from the Greater Station District proposed development.

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.

¹¹ Ibid.

¹² Union Sanitary District. 2021. Mission, Organization, Facts, and History. Available: <https://www.unionsanitary.com/about-us/about-us/mission-facts-history>. Accessed: June 23, 2021.

¹³ 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. Accessed: June 23, 2021.

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.

There are several storm drains around the Planning Area, including a 21-inch storm drain in Decoto Road, a 27-inch storm drain in 7th Street, and a 42- to 45-inch storm drain in 7th Street. In addition, there are 15-inch and 18-inch storm drainpipes 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 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 Planning Area are provided in Table 3.13-2. In 2019, the most recent year from which data are available, the City of Union City generated a total of 42,523 tons of solid waste. 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 2019, the City met these goals by achieving disposal rates of 3.1 pounds per day for residents and 7.3 pounds per day for employees.¹⁴

Table 3.13-2. Primary Solid Waste Disposal Facilities Serving the Planning Area

	<i>SWIS Number</i>	<i>Maximum Permitted Capacity</i>
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, 2021. Available: <https://www2.calrecycle.ca.gov/SolidWaste/Site/Search>. Accessed: June 23, 2021.

¹⁴ CalRecycle. 2021. Local Government Central Reports. Available:
<https://www2.calrecycle.ca.gov/LGCentral/Home/slcp/capacityplanning/recycling>. Accessed: June 23, 2021.

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 Planning Area have existing connections to infrastructure; the vacant areas do not. Existing overhead and underground electrical lines extend throughout the Plan Area. These lines have been installed to serve the variety of land uses currently in this area of Union City. As a result, the existing power grid consists of 12-kilovolt lines that serve the area. Natural gas is supplied via a low-pressure pipe network that runs throughout the Planning Area.

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, 11 offer residential services and 15 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.¹⁵

REGULATORY SETTING

Federal Regulations

Federal Safe Drinking Water Act

The Safe Drinking Water Act (SDWA), administered by the U.S. Environmental Protection Agency (EPA) in coordination with the states, is the main federal law that ensures the quality of drinking water. Under the SDWA, the U.S. EPA sets standards for drinking water quality and oversees the states, localities, and water suppliers who implement those standards. The Department of Public Health administers the regulations contained in the SDWA in the State of California.

United States Environmental Protection Agency

The 1986 amendments to the Safe Drinking Water Act and the 1987 amendments to the Clean Water Act (CWA) established the EPA as the primary authority for water programs. The EPA is the federal agency responsible for providing clean and safe surface water, groundwater, and drinking water, and protecting and restoring aquatic ecosystems. The planning area is in EPA Region 9 (Pacific Southwest), which includes Arizona, California, Hawaii, Nevada, Pacific Islands, and Tribal Nations.

Federal Water Pollution Control Act of 1972 (Clean Water Act)

The CWA establishes the basic structure for regulating discharges of pollutants into “waters of the United States.” The CWA specifies a variety of regulatory and non-regulatory tools to sharply reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. Some of these tools include Total Maximum Daily Loads

¹⁵ BroadBandNow. 2021. Internet Providers in Union City, California. Available: <https://broadbandnow.com/California/Union-City?zip=94587>. Accessed: June 23, 2021.

(TMDLs), water quality certification, and regulations on discharge of dredge or fill material. For more details, see Section 3.8: Hydrology and Water Quality.

National Pollutant Discharge Elimination System

The CWA was amended in 1987 to include urban and stormwater runoff, which required many cities to obtain a National Pollution Discharge Elimination System (NPDES) permit for stormwater conveyance system discharges. Section 402(p) of the CWA prohibits discharges of pollutants contained in stormwater runoff, except in compliance with a NPDES permit. For more details, see Section 3.8: Hydrology and Water Quality.

State Regulations

California Porter–Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act established the State Water Resources Control Board (SWRCB) and nine regional water quality control boards address water quality and rights regulation. The five-member SWRCB protects water quality by setting statewide policy, coordinating and supporting the Regional Water Quality Control Board (RWQCB) efforts, and reviewing petitions that contest RWQCB actions. The SWRCB is also solely responsible for allocating surface water rights. Each RWQCB makes critical water quality decisions for its region, including setting standards, issuing waste discharge requirements, determining compliance with those requirements, and taking appropriate enforcement actions. The planning area lies within the jurisdiction of the San Francisco RWQCB

The Act authorizes the SWRCB to enact state policies regarding water quality in accordance with CWA 303. In addition, the Act authorizes the SWRCB to issue waste discharge requirements (WDRs) for projects that would discharge to State waters. SWRCB Order No. 2006-0003 provides a consistent statewide approach to reducing sanitary sewer overflows (SSOs) by requiring public sewer system operators to take all feasible steps to control the volume of waste discharged into the system, to prevent sanitary sewer waste from entering the storm sewer system, and to develop a sewer system management plan.

The Porter-Cologne Water Quality Control Act further requires that the SWRCB or the RWQCBs adopt water quality control plans (basin plans) for the protection of water quality. Basin plans also provide the technical basis for determining waste discharge requirements, taking enforcement actions, and evaluating clean water grant proposals. For more details, see Chapter 3.8: Hydrology and Water Quality.

The SWRCB also manages the Division of Drinking Water (DDW), which regulates public water supply systems. Regulatory responsibilities include the enforcement of the federal and State Safe Drinking Water Acts, the regulatory oversight of public water systems, issuance of water treatment permits, and certification of drinking water treatment and distribution operators. State regulations for potable water are contained primarily within the Food and Agricultural Code, the Government Code, the Health and Safety Code, the Public Resources Code, and the Water Code. Regulations are from Title 17 and Title 22 of the California Code of Regulations.

Recycled water programs are also regulated by the SWRCB. The regulations governing recycled water are found in a combination of sources including the Health and Safety Code, Water Code, and Titles 22 and 17 of the California Code of Regulations. Issues related to treatment and distribution of recycled water are generally under the influence of the SWRCB.

California Department of Water Resources

The California DWR is responsible for the operation and maintenance of the California SWP. DWR is also responsible for overseeing the statewide process of developing and updating the California Water Plan (Bulletin 160 series); protecting and restoring the Sacramento–San Joaquin Delta; regulating dams, providing flood protection, and assisting in emergency management; educating the public about the importance of water and its proper use; and providing technical assistance to service local water needs.

Senate Bills 610 and 221

Enacted in 2002, SB 610, which was codified in the State Water Code beginning with section 10910, requires the preparation of a water supply assessment (WSA) for projects within cities and counties that propose to construct 500 or more residential units or the equivalent. SB 610 stipulates that when environmental review of certain large development projects is required, the water agency that is to serve the development must complete a WSA to evaluate water supplies that are or will be available during normal, single-dry, and multiple-dry years during a 20-year projection to meet existing and planned future demands, including the demand associated with a proposed project. The WSA for the proposed plan is included as Appendix G of this Draft EIR.

Enacted in 2001, SB 221, which was codified in the State Water Code beginning with section 10910, requires that the legislative body of a city or county, which is empowered to approve, disapprove, or conditionally approve a subdivision map, must condition such approval upon proof of sufficient water supply. The term “sufficient water supply” is defined in SB 221 as the total water supplies available during normal, single-dry, and multiple-dry years within a 20-year projection that would meet the projected demand associated with the proposed subdivision. The definition of sufficient water supply also includes the requirement that sufficient water encompass not only the proposed subdivision, but also existing and planned future uses, including agricultural and industrial uses.

The Water Conservation Act of 2009 (SB X7-7)

California legislation enacted in 2009 as SB 7 of the 7th Special Legislative Session (SB X7-7) instituted a new set of urban water conservation requirements known as “20 Percent By 2020.” These requirements stipulate that urban water agencies reduce per-capita water use within their service areas by 20 percent relative to their use over the previous 10 to 15 years. The City of Pleasanton plans to comply with the SB X7-7 requirements through a combination of ongoing water conservation measures. Calculations for the 2015 City of Pleasanton UWMP determined that as of 2015, Pleasanton had met the obligations of SB X7-7 (see Local Regulations below). The Pleasanton UWMP also describes the City’s implementation plan to meet 2020 water usage reduction targets.

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.

State Updated Model Water Efficient Landscape Ordinance (Assembly Bill 1881 (2006))

The State's updated Model Water Efficient Landscape Ordinance (MWELO) requires cities and counties to adopt landscape water conservation ordinances by July 15, 2015. In 2015, the City of Pleasanton passed Resolution 15-804 adopting the State's 2015 MWELO in conjunction with the Council's previous adoption of the Bay Friendly Basics Landscape Guidelines.

California Urban Water Management Planning Act

The California Legislature enacted the Urban Water Management Planning Act of 1983 (California Water Code Sections 10610 through 10656) to support conservation and efficient use of urban water supplies at the local level. The act requires that every urban water supplier that provides water to 3,000 or more customers, or over 3,000 AF of water annually, to make every effort to ensure the appropriate level of reliability in its water service to meet the needs of its customers during normal, dry, and multiple-dry years. The act requires that total projected water use be compared to water supply sources over the next 20 years in five-year increments, that planning occur for single- and multiple-dry water years, and that plans include a water recycling analysis that incorporates a description of the wastewater collection and treatment system within the agency's service area along with current and potential recycled water uses.

Applicable urban water suppliers within California are required by the Water Code to prepare and adopt a UWMP and update it every five years. A UWMP is required in order for a water supplier to be eligible for the DWR-administered state grants, loans, and drought assistance. A UWMP provides information on water use, water resources, recycled water, water quality, reliability planning, demand management measures, best management practices (BMPs), and water shortage contingency planning for a specified service area or territory.

California Emergency Graywater Regulations

In 2009, as part of the Governor's declared State of Emergency, Chapter 16A "Nonpotable Water Reuse Systems" was incorporated into the 2007 California Plumbing Code. Chapter 16A establishes minimum requirements for the installation of graywater systems in residential occupancies regulated by the California Department of Housing and Community Development, providing guidance and flexibility designed to encourage the use of graywater. The standards allow small graywater systems to be installed in homes without a construction permit, substantially reducing the barriers to installing small residential graywater systems in California. The purpose of the regulations is to conserve water by facilitating greater reuse of laundry, shower, sink, and similar sources of discharge for irrigation and/or indoor use; to reduce the number of noncompliant graywater systems by making legal compliance easily achievable; to provide guidance for avoiding

potentially unhealthful conditions; and to provide an alternative way to relieve stress on private sewage disposal systems.

Assembly Bill (AB) 1668 and Senate Bill (SB) 606

Passed in 2018, AB 1668 and SB 606 establish guidelines for efficient water use and a framework for the implementation and oversight of the new standards, which must be in place by 2022. The two bills strengthen the state's water resiliency in the face of future droughts with provisions that include:

- Establishing water use objectives and long-term standards for efficient water use that apply to urban retail water suppliers; comprised of indoor residential water use, outdoor residential water use, commercial, industrial and institutional (CII) irrigation with dedicated meters, water loss, and other unique local uses.
- Providing incentives for water suppliers to recycle water.
- Identifying small water suppliers and rural communities that may be at risk of drought and water shortage vulnerability and provide recommendations for drought planning.
- Requiring both urban and agricultural water suppliers to set annual water budgets and prepare for drought.

Each urban water supplier, starting in November of 2023, will calculate its own objective based on the water needed in its service area for efficient indoor residential water use, outdoor residential water use, commercial, industrial and institutional (CII) irrigation with dedicated meters and reasonable amounts of system water loss from leaks, the fact sheet states. In determining their objectives, water suppliers will also consider other unique local uses and credits for potable water reuse, based on standards adopted by the state water board.

California's Department of Resources Recycling and Recovery

California Department of Resources Recycling and Recovery (CalRecycle) is the State's leading authority on recycling, waste reduction, and product reuse. CalRecycle plays an important role in the stewardship of California's vast resources and promotes innovation in technology to encourage economic and environmental sustainability. CalRecycle brings together the State's recycling and waste management programs and continues a tradition of environmental stewardship. Mandated responsibilities of CalRecycle are to reduce waste, promote the management of all materials to their highest and best use, and protect public health and safety and the environment.

California Integrated Waste Management Act (AB 939)

Assembly Bill 939, California's Integrated Waste Management Act of 1989, mandates that 50 percent of solid waste be diverted by the year 2000 through source reduction, recycling, and composting. AB 939 also establishes a goal for all California counties to provide at least 15 years of ongoing landfill capacity. This requires each region to prepare a source reduction and recycling element to be submitted to CalRecycle, which administers programs formerly managed by the state's Integrated Waste Management Board and Division of Recycling. The City of Pleasanton participates in the Alameda County Waste Management Authority, and is subject to the goals and

policies of the Alameda County Integrated Waste Management Plan Countywide Element. The 50 percent diversion goal has since been updated to 75 percent per AB 341, discussed below.

California Solid Waste Reuse and Recycling Access Act of 1991 (AB 1327)

AB 1327 was established in 1991, which required CalRecycle to develop a model ordinance for the adoption of recyclable materials in development projects. Local agencies were then required to adopt the model, or an ordinance of their own, governing adequate areas for collection and loading of recyclable materials in development projects.

Disposal Measurement System Act of 2008 (SB 1016)

SB 1016 maintains the 50 percent diversion rate requirement established by AB 939, while establishing revised calculations for those entities who did not meet the 50 percent diversion rate. SB 1016 also established a per capita disposal measurement system to make the process of goal measurement, as established by AB 939, simpler, timelier, and more accurate. The new disposal-based indicator—the per capita disposal rate—uses only two factors: a jurisdiction’s population (or in some cases employment) and its disposal as reported by disposal facilities.

Solid Waste Diversion (AB 341)

Effective July 1, 2012, AB 341 established a policy goal for the state that not less than 75 percent of solid waste generated be source reduced, recycled, or composted by the year 2020. This report, as directed by the Legislature, provides strategies to achieve that 75 percent goal. A Report to the Legislature accompanied the passage of AB 341 and outlined five strategies and three additional focus areas as potential pathways that can be pursued to achieve this goal. Subsequent reports on the State of Recycling and Disposal were published in 2015, 2016, and 2017.

AB 341 also requires that commercial enterprises that generate four cubic yards or more of solid waste weekly participate in recycling programs. This requirement includes multifamily housing complexes of five units or more, regardless of the amount of solid waste generated each week.

Assembly Bill 1826

Adopted in 2016, 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; and
- Four or more cubic yards of solid waste per week as of January 1, 2019.

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.

Local Regulations

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; and
- 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, 2018.¹⁶

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:

¹⁶ Alameda County Waste Management Authority. n.d. Ordinance Overview. Available: <http://www.recyclingrulesac.org/ordinance-overview/#mandatory-recycling-ordinance>. Accessed: June 23, 2021.

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.

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).

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.¹⁷ The City's requirements are based on the standards included in SB X7-7.

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 Green Building and Landscaping Practices, Municipal Code Chapter 15.76

Union 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 Union 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.

¹⁷ City of Union City. 2016. Water Efficient Landscape Ordinance. Available:
https://qcode.us/codes/unioncity/view.php?topic=18-18_112&frames=on. Accessed: June 23, 2021.

Impact Analysis

SIGNIFICANCE CRITERIA

For the purposes of this EIR, a significant impact would occur if implementation of the Proposed Plan would:

- Criterion 1:** Require or result in the relocation or construction of new or expanded water, or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects;
- Criterion 2:** Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years;
- Criterion 3:** Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
- Criterion 4:** 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; or
- Criterion 5:** Conflict with federal, state, and local management and reduction statutes and regulations related to solid waste.

METHODOLOGY AND ASSUMPTIONS

Potential impacts on utilities and service systems are analyzed within the context of existing plans and policies, permitting requirements, local ordinances, the Union City Municipal Code, and the policies included in the Proposed Plan. As described in Chapter 2, Project Description, implementation of the Proposed Plan and pipeline projects would result in the development of 3,930 new residential units, 133,000 square feet of new retail space, 4,767,000 square feet of new office space, and would remove 496,000 square feet of industrial space. As described therein, the analysis presented throughout this EIR adequately accounts for the potential environmental impacts of the new residential units and non-residential square footage. 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. Availability and capacity for each utility anticipated under Proposed Plan conditions were compared to forecasted availability and capacity identified in City planning documents, including the General Plan, the General Plan EIR, and the water supply assessment (WSA).

A WSA was prepared for the Proposed Plan; this document is referenced in the analysis and included as Appendix G. Impacts that would be substantially reduced or eliminated by compliance with these policies or requirements are determined to be less than significant.

RELEVANT PROPOSED GOALS AND POLICIES

Public Facilities, Services, and Infrastructure

- G-PF-4 **Infrastructure and Public Utilities.** Continue the successful provision, maintenance and operation of infrastructure and public utilities to maintain the quality of life and sustainability of the Station District.
- G-PF-5 **Water Supply.** Continue efforts to safeguard the quality and availability of water supplies.
- G-PF-6 **Stormwater.** Develop a stormwater drainage system that maintains the health and safety of residents, provides flood control, reduces long-term maintenance costs, minimizes pollution, and enhances aesthetic quality.
- G-PF-7 **Public Utilities.** Facilitate the development and maintenance of all utilities at the appropriate levels of service to accommodate the City's projected growth.
- P-PF-6 **Potable Water.** Require new development projects to construct adequate potable water distribution and sanitary sewer systems and/or pay applicable fees to construct necessary facilities, as identified under the Station District Specific Plan and the City's Capital Improvement Plan.
- P-PF-7 **Utility Connections.** Require connections to the water distribution and sanitary sewer concurrently with construction of new roadways to maximize efficiency and minimize disturbance due to construction activity.
- P-PF-8 **Water Efficient Appliances and Fixtures.** Require new development to install water efficient appliances and fixtures such as low-flow faucets and toilets.
- P-PF-9 **Water Efficient Landscape.** Require new development to comply with the State and the City's mandatory water efficient landscape ordinance (WELO).
- P-PF-10 **Rainwater and Greywater.** Allow the use of rainwater harvesting systems, consistent with regional permit requirements. Encourage use of greywater for irrigation.
- P-PF-11 **Pretreatment Facilities.** Require restaurants and other uses that discharge grease into the wastewater treatment system to reduce impacts through individual or collective pretreatment facilities.
- P-PF-12 **Stormwater Management.** Design new streetscape and landscaped areas in the public right-of-way for stormwater management and the efficient use of water through:
- The installation of low-maintenance, drought-resistant plant palettes;

- Use of large detention basins to temporarily hold stormwater and release it slowly, metering the flow
- Use of low-flow irrigation systems; and/or
- Use of bioswales and rain gardens in planting areas, curb extensions, and other green infrastructure.

- P-PF-13 **Low Impact Landscape Design.** Require new development to incorporate low impact landscape design, such as drought-tolerant landscaping, natural drainage systems and groundwater recharge features, consistent with stormwater permit requirements.
- P-PF-17 **Utilities for New Development.** Ensure that utilities (i.e., electricity, natural gas, telecommunications, and cable) are available to serve new development in an environmentally responsible, aesthetically acceptable, and safe manner. However, the ultimate responsibility for ensuring that the utilities are available to support new development rests on the sponsor of proposed projects.
- P-PF-18 **Underground Overhead Utilities.** Require new development to underground all new or existing overhead utility distribution facilities necessary to supply utility service to the project.
- P-PF-19 **Waste Reduction and Recycling.** Require all new development to participate in all recycling and hazardous waste reduction and solid waste diversion programs in effect at the time of issuance of building permits.
- P-PF-20 **Recycling.** Require recycling and green waste opportunities in all new multifamily and non-residential development.
- P-PF-21 **Conduit and Fiber.** New development shall comply with the City's standards for installation of conduit and fiber in City streets to serve new development.

IMPACTS

Impact 3.13-1 Development under the Proposed Plan would not require or result in the relocation or construction of new or expanded water, or 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*)

Water

A significant impact would occur if the Proposed Plan would require the construction or relocation of water facilities, including treatment and conveyance systems, which could cause significant environmental effects. Water is supplied to the Planning Area by the ACWD, which also serves the Cities of Fremont and Newark. Prior to delivering water to customers, ACWD water is treated at one of four facilities to ensure compliance with applicable standards. As described above, these

facilities include the Mission San Jose Water Treatment Plant, the Water Treatment Plant No. 2, the Blending Facility, and the Newark Desalination Facility. Additionally, water supply from the San Francisco Regional Water System Direct Takeoff is treated prior to delivery to ACWD.

The WSA prepared by ACWD determined that water demand associated with the Proposed Plan was accounted for in ACWD's 2020-2025 UWMP. As such implementation of the Proposed Plan would not require the construction or expansion of treatment facilities over and above that which is already planned to serve demand in the ACWD service area through 2040. In 2010, the District completed an expansion of the Desalination Facility to increase overall treatment capacity to 12 mgd, or approximately 13,400 AFY. The expansion of the Desalination Facility capacity to 12 mgd allows additional operational flexibility to use surplus supplies, and to provide peak summer capacity. According to the ACWD, brackish groundwater desalination treatment is not needed to increase its capacity to meet the future water demand of the Proposed Plan. Desalination treatment capacity is projected to remain at approximately 5,000 AFY through 2045.

As the WSA determined that water demand associated with the Proposed Plan was accounted for in ACWD's 2020-2025 UWMP, no new or expanded ACWD conveyance infrastructure beyond that which is already planned would be required to deliver water to the Planning Area through 2040. Within the Planning Area, water is delivered through a 24-inch and 16-inch transmission main in Alvarado-Niles Road, and the 24-inch transmission main continues north to serve Decoto Road and 7th Street, where it then branches into smaller mains serving the remaining Planning Area. There are also 12-inch transmission mains through Union Square, Zwissig Way, and 11th Street, all of which appear to provide redundancy to the system by connecting back into one of the 24-inch transmission mains. Development projects pursuant to the Proposed Plan would be required to install distribution mains within the street network to serve fire and domestic water needs. Final sizing of any particular line will be subject to modeling of the system that must rely on water use parameters of any particular project or group of projects once those details are known. It is expected that new distribution mains in backbone streets will be 10-inch or 12-inch in diameter and distribution mains in local streets will be 8-inch or 10-inch in diameter.

The land use and population projections developed for the Proposed Plan and used as the basis for technical modeling in this EIR account for the construction of this new local conveyance infrastructure. Therefore, the environmental impacts related to construction period traffic, noise, and air quality and GHG emissions have been considered throughout this EIR at a programmatic level. Distribution mains would be installed within the street network, shown on Figure 4-1 of the Proposed Plan, and where new streets are to be constructed, installation of the mains would be done concurrently with roadway construction. Construction would be required to comply with policies in the Proposed Plan regarding surveys for sensitive biological resources (P-EQ-13), worker environmental awareness training (P-EQ-15), tree replacement (P-EQ-16), and creation of inadvertent cultural resource discovery plans (P-EQ-XX) as well as to comply with applicable existing regulations, including those related to geology, soils, hazardous materials, and hydrology. Further, construction would be subject to separate project-level CEQA review at the time specific projects are proposed in order to identify and mitigate project-specific impacts as appropriate. As such, compliance with existing regulations and implementation of Proposed Plan policies would reduce impacts to the maximum extent practicable. Overall, buildout of the Proposed Plan would result in less than significant impacts related to the provision of water treatment and conveyance facilities.

Wastewater

A significant impact would occur if the Proposed Plan would require the construction or relocation of wastewater treatment facilities which could cause significant environmental effects. The Planning Area is within the service boundaries of the Union Sanitary District (USD), which serves the Cities of Union City, Fremont, and Newark. The Planning Area is primarily served by a 27-inch trunk gravity main with CIPP liner in Alvarado-Niles Road (Alvarado-Niles 27-inch), which carries wastewater flows west through the Planning Area, across (beneath) I-880 Freeway and to the Alvarado Treatment Plant, approximately 4-miles to the west. In 2017, USD prepared a Sewer Master Plan Update that evaluates the capacity of the existing sewer system and identifies sewer improvements that are necessary to achieve future capacity requirements. The 2017 Sewer Master Plan Update did not identify the need for any trunk sewer capacity improvements at the time in the Alvarado Basin.

In addition to the Alvarado-Niles 27-inch line, there is a 15-inch gravity line in 7th Street (Seventh 15-inch) that flows from west to east before turning to the southeast following Black Mountain Circle, where there is increase to a 21-inch main. It then continues to the southwest along King Avenue before turning west running adjacent to railroad tracks, where it increased to a 24-inch main and then crosses under the tracks and continues south along Saltillo Place and Kraftile Road. The 24-inch line then crosses (beneath) the BART tracks and is collected by the Alvarado-Niles 27-inch line. The 2017 Sewer Master Plan Update does not identify the need for any trunk sewer capacity improvements in the Alvarado Basin; however, the Master Plan identifies a potential deficiency in the 15-inch mains located in Zwissig Way and 7th Street, depending on the ultimate buildout of the Planning Area.

The Proposed Plan would allow for the development of 3,930 new residential units, 133,000 square feet of new retail space, 4,767,000 square feet of new office space, and will remove 496,000 square feet of industrial space. USD staff has confirmed that these development projections are consistent with assumptions used for the 2017 Master Plan.¹⁸ Existing and projected wastewater generation for the Planning Area is shown in gallons per day and acre-feet per year in Table 3.13-3. The Alvarado Treatment Plant experienced an average daily flow of 23.7 million gallons per day (MGD) for 2019 and has the capacity to treat and discharge 33 MGD. Infiltration and inflow are not significant issues within the District. As shown in Table 3.13-3, estimated flow with buildout of the Proposed Plan in 2040 is 1.78 MGD, which represents 5.4 percent of total available capacity in 2040. Therefore, the Treatment Plant has adequate capacity to serve the 2040 service population of the Planning Area.

Table 3.13-3: Wastewater Generation in the Planning Area

<i>Wastewater Generation</i>	<i>Gallons per day (GPD)</i>	<i>Acre-feet per year (AFY)</i>
Existing Wastewater Demand (2020)	506,869	568
New Wastewater Demand (2040)	1,273,854	1,427
Total Wastewater Demand (2040)	1,780,723	1,995

¹⁸ Email communication with Rollie Arbolante, P.E., Principal Engineer, Union Sanitation District, November 22, 2021.

Table 3.13-3: Wastewater Generation in the Planning Area

<i>Wastewater Generation</i>	<i>Gallons per day (GPD)</i>	<i>Acre-feet per year (AFY)</i>
Note: Wastewater demand calculated based on Proposed Plan buildout and the following generation rates:		
Multifamily Residential & Condos:	218 GPD/DU	
Retail:	100 GPS/1,000 SF	
Office:	100 GPS /1,000 SF	
Industrial:	150 GPD/1,000 SF	

Source: BKF, 2021.

While implementation of the Proposed Plan would increase wastewater generation and could affect capacity of the Zwissig Way and 7th Street mains, Proposed Plan Policy P-PF-6 would require new development projects to construct adequate sanitary sewer systems and pay applicable fees to construct necessary facilities as identified under the Proposed Plan and the City’s Capital Improvement Plan. Policy P-PF-11 would also require restaurants and other uses that discharge grease into the wastewater treatment system to reduce impacts through individual or collective pretreatment facilities. Per goal G-PF-7, the Proposed Plan would facilitate the development and maintenance of all utilities at the appropriate levels of service to accommodate the City’s projected growth. To minimize impacts to the environment from construction of new facilities, policy P-PF-7 states that connections to the sanitary sewer systems should occur concurrently with the construction of new roadways. Therefore, implementation of the Proposed Plan would have a less than significant impact on wastewater facilities.

Stormwater

A significant impact would occur if the Proposed Plan would require the construction or relocation of stormwater drainage infrastructure which could cause significant environmental effects. Union City owns and maintains the public storm drainage collection system in the Planning Area, which is comprised of underground reinforced concrete pipes and local creeks that carry runoff water to nearby flood channels owned and maintained by ACFCD, eventually discharging by permit to the San Francisco Bay.

Future developments within the Planning Area must meet the requirements of Section C.3 of the Alameda Countywide Clean Water Program’s (ACCWP) NPDES permit with the California State Water Board, the City of Union City requirements, and other applicable local, state and federal requirements. These include storm water treatment regulations (C3), hydromodification requirements (C3g), as well as trash capture regulations (C10). Guidelines for implementing these regulations are detailed in the Alameda Countywide Clean Water Program handbook and are reviewed and permitted by Union City. Furthermore, hydromodification requirements are triggered by projects that create or replace one acre or more of impervious area, unless the post-project impervious area is less than or equal to the pre-project impervious area, although future development could be exempt from hydromodification requirements if located in an area that is already highly developed (70 percent or more impervious). Projects pursuant to the Proposed Plan would be required to comply with these requirements, which would minimize the increase in stormwater volume and velocity to the maximum extent practicable.

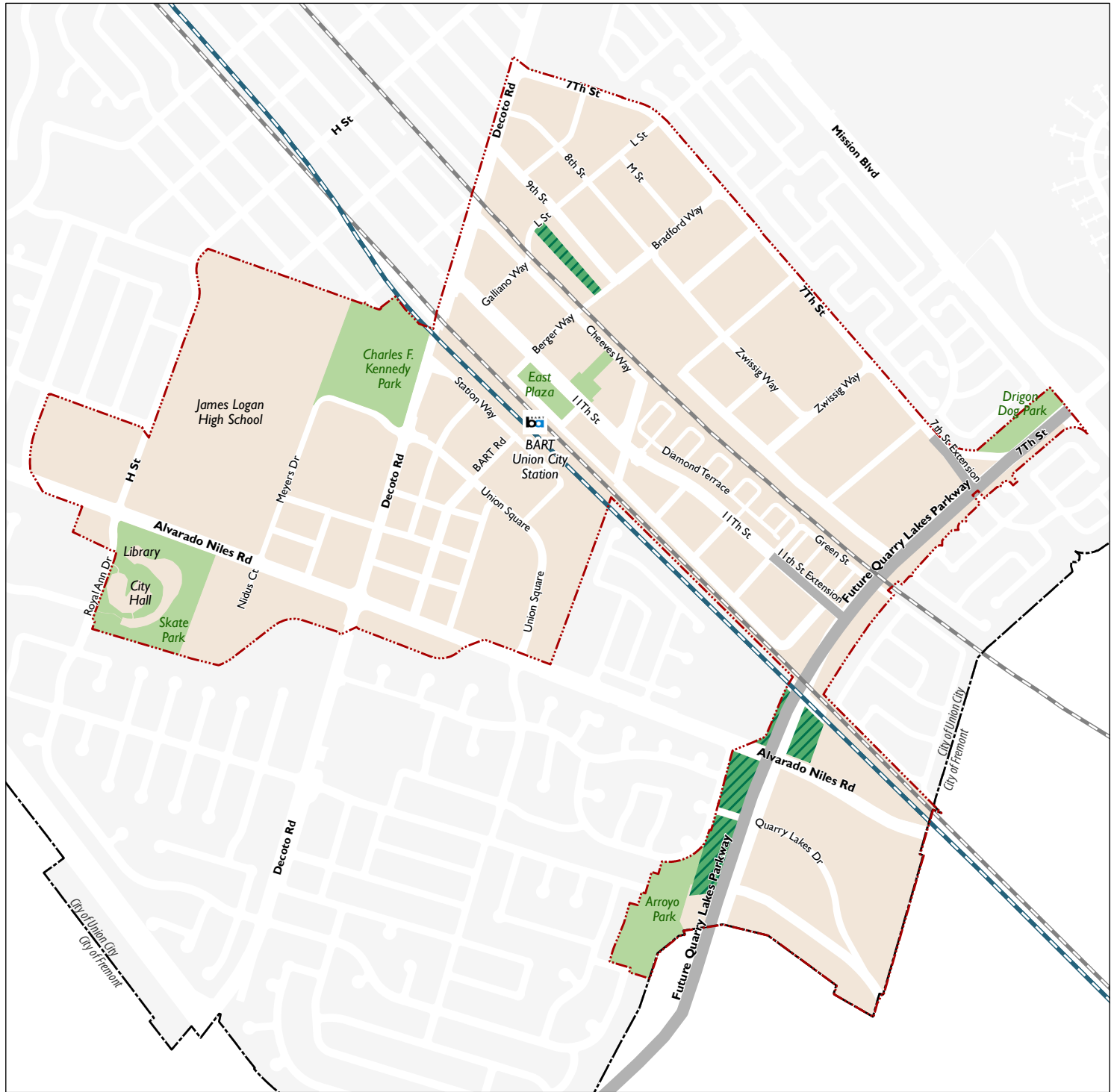
The Proposed Plan envisions shared treatment facilities that may be pursued to achieve hydromodification, as shown on Figure 3.13-1. In addition to stormwater detention basins, oversized pipes and underground tanks may be used to detain stormwater to meet hydromodification requirements. The precise size and design of these facilities will be determined as specific projects are proposed and will be subject to separate project-level CEQA review in order to identify and mitigate project-specific impacts as appropriate. The Proposed Plan also includes policies which would reduce the volume and velocity of runoff flowing into the stormwater system. Policy P-PF-12 calls for new streetscape and landscaped areas in the public right-of-way to be designed for stormwater management through the use of drought-resistant plants, large retention basins, low-flow irrigation systems, and bioswales and other green infrastructure. Policy P-PF-13 also requires new development to incorporate low impact landscape design, such as natural drainage systems and groundwater recharge features, consistent with stormwater permit requirements. Therefore, through compliance with stormwater regulations and implementation of Proposed Plan policies, there would be a less than significant impact on stormwater facilities.








Power and Telecommunications

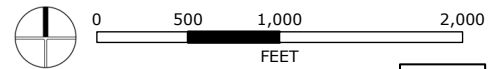
A significant impact would occur if the Proposed Plan would require the construction or relocation of power and telecommunications infrastructure which could cause significant environmental effects. Existing overhead and underground electrical lines extend throughout the Planning Area and were originally installed to serve the variety of existing land uses. As a result, the existing power grid consists of 12-kilovolt lines that serve the area. For natural gas supply, the existing low-pressure pipe network that runs throughout the Station District Specific Plan Area would serve new development. Proposed Plan Policy P-PF-17 would require project proponents to ensure that utilities, including electricity, natural gas, telecommunications, and cable, are able to serve new development in an environmentally responsible manner. Policies P-PF-18 and P-PF-21 also require new development to install utility distribution lines underground and incorporate telecommunications facilities in the initial building design. The land use and population projections developed for the Proposed Plan and used as the basis for technical modeling in this EIR account for the extension of power and telecommunications infrastructure needed for implementation of the Proposed Plan.

Therefore, the environmental impacts related to construction period traffic, noise, and air quality and GHG emissions have been considered throughout this EIR at a programmatic level. Power distribution lines would be installed within the street network, shown on Figure 4-1 of the Proposed Plan. Where new streets are to be constructed, installation of the power lines would be done concurrently with roadway construction. Construction would be required to comply with policies in the Proposed Plan regarding surveys for sensitive biological resources (P-EQ-13), worker environmental awareness training (P-EQ-15), tree replacement (P-EQ-16), and creation of inadvertent cultural resource discovery plans (P-EQ-XX) as well as to comply with applicable existing regulations, including those related to geology, soils, hazardous materials, and hydrology. Further, construction would be subject to separate project-level CEQA review at the time specific projects are proposed in order to identify and mitigate project-specific impacts as appropriate. As such, compliance with existing regulations and implementation of Proposed Plan policies would reduce impacts to the maximum extent practicable. Overall, buildout of the Proposed Plan would result in less than significant impacts related to the provisions of power and telecommunications facilities.

Figure 3.13-1: Shared Stormwater Detention Facilities



-  Union City Station District
-  Union City City Limit
-  Bioretention Facilities
-  Existing Parks
-  Union City BART Station
-  BART
-  Railroad



Source: City of Union City, 2019; Alameda County GIS, 2019.

Mitigation Measures

None required.

Impact 3.13-2 Development under the Proposed Plan would have sufficient water supplies available to serve the Planning Area and reasonably foreseeable future development during normal, dry and multiple dry years. (*Less than Significant*)

Water to the Planning Area is supplied by the ACWD, which also serves water to the Cities of Fremont and Newark. A significant impact would occur if ACWD would not have sufficient water supplies available to serve the Proposed Plan during normal, dry, and multiple dry years through 2040. As shown in Table 3.13-4, implementation of the Proposed Plan would significantly increase water demand within the Planning Area; however, in the WSA prepared for the Proposed Plan, ACWD determined that water demand associated with the Proposed Plan was accounted for in ACWD's 2020-2025 UWMP and that, as such, there is sufficient supply to serve development under the Proposed Plan.

Table 3.13-4: Water Demand in the Planning Area

<i>Water Demand</i>	<i>Gallons per day (GPD)</i>	<i>Acre-feet per year (AFY)</i>
Total Projected Demand Under 2040 General Plan	740,976	830
New Water Demand from the Proposed Plan	852,569	955
Total Water Demand	1,593,545	1,785

Note: Water demand estimate is based on service area-wide average usage factors for different customer classes and is therefore a rough estimate.

Source: Alameda County Water District, 2021.

In its UWMP, the ACWD has projected future water supply and demand within its service area for normal, dry, and multiple dry years between 2020 and 2040, as shown in Tables 3.13-5, 3.13-6 and 3.13-7 below. ACWD's UWMP concludes that the District would have sufficient water supply during normal year and multiple dry year scenarios. During periods of water supply shortage, such as the Single Dry Year Scenario, ACWD may be required to implement a Water Shortage Contingency Plan (WSCP) in order to meet projected demand, as detailed in the UWMP.

As shown in Table 3.13-5, ACWD's UWMP shows excess available water supplies in normal years through its planning horizon of 2045. Under normal years, the District's total supply is projected to be 68,300 AFY in 2040 which is sourced from local supplies, the State Water Project (SWP), and San Francisco's Regional Water System. Based on the District areawide average usage factors which account for development in the Planning Area, water demand is projected to be 60,100 AFY in 2040. Therefore, supply will be sufficient to meet demand under normal year conditions. Additionally, projects under the Proposed Plan will be required to implement ACWD's Water Efficiency Measures that include best practices for residential and commercial developments, such as water efficient plumbing fixtures and irrigation systems, which will help reduce demand through 2040. ACWD is well within their remaining capacity to meet projected water demands, as adjusted for estimated future water use efficiency savings.

Table 3.13-5: District Estimated Future Water Demands (Normal Year) (AFY)

	2020	2025	2030	2035	2040	2045
Water Supply	68,100	68,200	68,200	68,300	68,300	68,200
Water Demand	58,600	60,900	60,400	60,100	60,100	67,600
Difference	9,500	7,300	7,800	8,200	8,200	600

Source: Alameda County Water District, 2021. Available: <https://www.acwd.org/DocumentCenter/View/3816/Final-2020-2025-UWMP>.

Table 3.13-6: District Estimated Future Water Demands (Single Dry Year) (AFY)

	2020	2025	2030	2035	2040	2045
Water Supply	52,600	52,600	52,700	52,700	52,800	52,300
Water Demand	55,900	58,200	57,700	57,400	57,400	63,900
Difference	(3,300)	(5,600)	(5,000)	(4,700)	(4,600)	(11,600)

Source: Alameda County Water District, 2021. Available: <https://www.acwd.org/DocumentCenter/View/3816/Final-2020-2025-UWMP>.

Table 3.13-7: District Estimated Future Water Demands (Multiple Dry Year) (AFY)

	2020	2025	2030	2035	2040	2045
Water Supply	61,400	56,700	56,700	56,700	56,500	51,200
Water Demand	57,000	56,100	55,600	55,300	54,800	61,000
Difference	4,400	600	1,100	1,400	1,700	(9,800)

Source: Alameda County Water District, 2021. Available: <https://www.acwd.org/DocumentCenter/View/3816/Final-2020-2025-UWMP>.

However, as shown in Table 3.13-6, ACWD can expect to incur shortages of up to 18 percent under the single dry year scenario. During single dry years, ACWD's SWP supplies may be cut back by approximately 90 percent, and the District would need to rely on local and off-site groundwater storage to help make up for this shortfall. If there is insufficient local groundwater storage or if the District is unable to recover its reserves from the Semitropic Groundwater Banking Program, the District would look to secure additional supplies through a DWR drought water bank or similar water purchase/transfer program. In addition, the District would also likely implement the Water Supply Conservation Plan described in Chapter 10 of the UWMP as was done in 2014.

Table 3.13-7 also shows that under the multiple dry year scenario, ACWD could withstand conditions similar to the most severe 5-year drought period without any additional shortages. However, with demand rebounds after recent drought and future demand growth throughout its service area, ACWD can expect to have interim year shortages of up to 16 percent under this scenario. As with the single dry year condition, both local groundwater storage and off-site groundwater storage in Semitropic Groundwater Banking Program will play key roles in offsetting shortfalls in the District's other local and imported supplies. As discussed in the ACWD UWMP, in the event that there is insufficient local groundwater storage or that ACWD is

unable to recover its full contractual amount from the Semitropic Groundwater Banking Program, the ACWD would look to secure additional supplies through a DWR drought water bank or similar water purchase/transfer program and would implement a water shortage contingency plan described in the UWMP.

As described in Chapter 2 of this EIR, individual development projects pursuant to the Proposed Plan will be required to implement ACWD's Water Efficiency Measures for New Developments, which include water efficient plumbing fixtures and irrigation systems among others. Specifically, these measures include both indoor or outdoor requirements consistent with established federal or State requirements. Outdoor efficiency measures for both residential and commercial developments include best practices related to landscaping, irrigation systems, valves and circuits, decorative fountains, swimming pools and spas, rain barrels and cisterns. Indoor efficiency measures for residential developments involve best practices for installing toilets, showerheads, lavatory faucets, kitchen faucets, clothes washers, and dishwashers. Commercial developments have further requirements for cooling towers, food steamers, ice machines, commercial refrigeration, pre-rinse dishwashing spray valves, and vehicle wash facilities. For reference, these measures are included in Appendix G of this EIR and they are also published on the ACWD website. Implementation of these measures will help reduce current demand and ensure there is enough supply during water shortage conditions. Therefore, to ensure implementation of ACWD's Water Efficiency Measures for New Developments, Mitigation Measure MM-UTIL-1, requiring implementation as applicable in all new development in the Planning Area is recommended.

Further, the Proposed Plan includes multiple policies that support water conservation and efficiency to minimize additional demand, including policies P-PF-8, P-PF-9, P-PF-10, P-PF-12, and P-PF-13. These policies would further reduce demand by implementing measures such as water efficient appliances and fixtures, rainwater harvesting systems, drought-resistant and water-efficient landscaping, low-flow irrigation systems, and groundwater recharge features. Union City's General Plan, Climate Action Plan, and Municipal Code also include multiple provisions that support water conservation. Additionally, ACWD would implement the water shortage contingency plan described in the UWMP and all other conservation measures during dry years to continue providing sufficient supplies for the service area.

Therefore, based on the findings of the WSA and implementation of MM-UTIL-1 described below, ACWD would have sufficient water supplies available to serve development pursuant to the Proposed Plan during normal, dry, and multiple dry years. As such, impacts would be less than significant with mitigation incorporated.

Mitigation Measures

MM-UTIL-1: Water Efficiency Measures for New Developments. New development in the Planning Area shall be designed to incorporate the Alameda County Water District's Water Efficiency Measures for New Development, as applicable, in order to ensure compliance with federal and State requirements for water efficiency.

Significance after mitigation: Less than significant

Impact 3.13-3 Development under the Proposed Plan would not result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments. (*Less than Significant*)

A significant impact would occur if the USD Alvarado Treatment Plant would not have adequate capacity to serve the Proposed Plan's projected demand in addition to USD's existing commitments. As discussed in Impact 3.13-1 above, the Alvarado Treatment Plant has the capacity to treat 33 MGD and is currently treating only 23.7 MGD. As shown in Table 3.13-3, at buildout, the Proposed Plan is estimated to generate about 1.78 MGD of wastewater, well within the treatment plant's existing capacity. USD staff has confirmed that projected buildout of the Proposed Plan is consistent with the assumptions of the 2017 USD Sewer System Master Plan and that it is anticipated there will be sufficient capacity to serve project pursuant to the Proposed Plan in 2040.¹⁹ As a result, impacts would be less than significant.

Mitigation Measures

None required.

Impact 3.13-4 Development under the Proposed Plan 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. (*Less than Significant*)

Construction

A significant impact would occur if development under the Proposed Plan generates 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. Demolition and construction activities associated with implementation of the Proposed Plan 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, individual projects within the Planning Area would be required to 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 Plan would not generate solid waste in excess of State or local standards or in excess of the capacity of local infrastructure during construction. This impact would be less than significant.

Operation

Solid waste from Union City is primarily sorted at the Fremont Recycling and Transfer Station operated by Republic Services of California and any waste not recycled or composted is disposed of at the Altamont Landfill and Resource Recovery Facility operated by Waste Management. Union City's disposal agreement with Waste Management ensures long-term disposal capacity at the Altamont Landfill. Republic Services processes commercial and residential organics at the Newby Island Composting Facility and recycling materials at the Newby Island Resource Recovery Park.

¹⁹ Email communication with Rollie Arbolante, P.E., Principal Engineer, Union Sanitation District, November 22, 2021.

Tri-CED also operates a Materials Recovery Facility in Union City where all single-stream residential collection recycling materials are processed.

As shown below in Table 3.13-8, Union City has disposed between 37,408 and 42,523 tons of solid waste during the five-year period between 2015 and 2019. These volumes account for all waste generated by all sources within the city, including both residential, commercial, and industrial waste. Using these reported volumes of solid waste, and the population of Union City during each of these years, a per capita solid waste disposal rate was calculated for Union City. As shown in the table, the average per capita solid waste disposal rate in Union City, in recent years, is approximately 0.53 tons per year per person. As discussed in Chapter 2: Project Description, implementation of the Proposed Plan and pipeline projects would increase the Planning Area's population by 9,400 residents compared to existing conditions. Thus, the Proposed Plan would result in a net increase in solid waste generation of approximately 4,982 tons per year, or 13.6 tons per day.

Table 3.13-8: Annual Solid Waste Disposal Per Capita (Union City)

<i>Report Year</i>	<i>Solid Waste Disposal Originating from Union City (annual tons)</i>	<i>Population</i>	<i>Solid Waste Disposal Per Capita (annual tons)</i>
2015	38,420.33	72,744.00	0.53
2016	37,812.57	73,010.00	0.52
2017	39,593.97	72,975.00	0.54
2018	37,407.82	74,058.00	0.51
2019	42,522.75	74,916.00	0.57

Source: CalRecycle, 2021. Available: <https://www2.calrecycle.ca.gov/LGCentral/Home/slcp/capacityplanning/recycling>. Accessed: June 24, 2021.

The permitted remaining capacity of the Altamont Landfill is 65.4 million tons, as reported by CalRecycle at the end of 2016. As shown in Table 3.13-2, the permitted capacity of the Altamont Landfill is 11,150 tons per day. Thus, the annual solid waste generated by the Proposed Plan would be approximately 0.008 percent of the permitted remaining capacity of the landfill and the daily solid waste generated by the Proposed Plan would be approximately 0.12 percent of the permitted daily capacity of the landfill. The Proposed Plan would not be a substantial contributor to the City's solid waste at the Altamont Landfill.

Further, businesses and residences within the Planning Area would be required to recycle materials that are recyclable, per Section 7.04.040 of the Union City Municipal Code. 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. Development projects under the Proposed Plan would be required to comply with State and local laws mandating recycling of recyclable materials. Additionally, policy P-PF-19 would require all new development to participate in all recycling and hazardous waste reduction and solid waste diversion programs in effect at the time of issuance of building permits, and policy P-PF-20 would require recycling and organics recycling in all new multifamily and non-residential development.

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. Therefore, implementation of the Proposed Plan would not generate solid waste in excess of State or local standards or in excess of the capacity of local infrastructure during operation, and this impact would be less than significant.

Mitigation Measures

None required.

Impact 3.13-5 Development under the Proposed Plan would not conflict with federal, state, and local management and reduction statutes and regulations related to solid waste. (*Less than Significant*)

A significant impact would occur if development under the Proposed Plan would violate any federal, State, or local statutes or regulations related to solid waste. As described under the Physical Setting section, waste collection services in the Planning Area are provided by Republic Services. Republic Services collects and transports solid waste, including trash, recyclables, and organic materials. Tri-CED also provides weekly collection of single-stream residential recyclables. Hazardous and e-waste is managed by the Alameda Household Hazardous Waste program, which operates household hazardous and electronic waste disposal drop-off facilities in Fremont and Hayward.

Federal, State, and local statutes and regulations related to solid waste include AB 939, AB 1327, SB 1016, AB 341, and AB 1826, as well as the Alameda County Mandatory Recycling Ordinance, which requires multifamily properties with five or more units and certain businesses to provide on-site recycling and composting services. Projects pursuant to the Proposed Plan would be subject to policies in the Union City 2040 General Plan aimed at increasing waste diversion, recycling, and green purchasing. For example, the General Plan requires the City to meet or exceed State goals regarding waste diversion from landfills and County requirements for recycling and composting. The Union City Climate Action Plan also 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. Such policies include exploring methods for the repurpose and reuse of electronics, recycling and reuse of building materials, public education on green purchasing, and designing new development to accommodate recycling and waste collection. The Proposed Plan also includes multiple supportive policies such as policy P-PF-19, which would require all new development to participate in all recycling and hazardous waste reduction and solid waste diversion programs in effect at the time of issuance of building permits, and policy P-PF-20, which would require recycling and organics recycling in all new multifamily and non-residential development. Further, any development of future land uses under the Proposed Project would be required to comply with federal, State, and local statutes and regulations related to solid waste. Therefore, the impact would be less than significant.

Mitigation Measures

None required.

3.14 Agricultural Resources

This section assesses potential environmental impacts on agricultural resources from future development under the Proposed Plan, including those related to farmland as identified by the Farmland Mapping and Monitoring Program of the California Resources Agency; agricultural zoning and Williamson Act contracts; and the conversion of farmland to non-agricultural uses. This section describes existing agricultural resources in the Planning Area, as well as relevant Federal, State, and local regulations and programs.

There were several NOP comments that expressed a desire to preserve the agricultural land within the Gateway subarea. Comments requested that the Proposed Plan create a priority conservation area for the farmland and restore the farmland status to Statewide importance by rezoning land within the Gateway subarea which currently allows for multi-family housing to better accommodate agricultural farmland. Two commenters suggested that the Silva Farm (sometimes referred to in the NOP comments as the Ramirez Farm) and Peterson Farmhouse (sometimes referred to in the NOP comments as the Peterson Ranch) be preserved as part of a park / greenspace.

Environmental Setting

PHYSICAL SETTING

Farmland Classification

The California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP) classifies farmland into the following categories based on soil type and current land use:

- **Prime Farmland.** Land that has the best combination of physical and chemical characteristics for crop production. It has the soil quality, growing season, and moisture supply needed to produce sustained high yields of crops when managed (including water management) according to current farming methods. Prime Farmland must have been used for the production of crops within the last three years.
- **Farmland of Statewide Importance.** Land other than Prime Farmland that has a good combination of physical and chemical characteristics for crop production. Similar to Prime Farmland, Farmland of Statewide Importance must have been used for crop production within the last three years.
- **Unique Farmland.** Land that does not meet the criteria for Prime Farmland or Farmland of Statewide Importance, but which is currently used for the production of specific high

economic value crops (as listed in the last three years by the California Department of Food and Agriculture). It has the special combination of location, soil quality, growing season, and moisture supply to produce sustained high quality or high yields of a specific crop (e.g., oranges, olives, avocados, rice, grapes, and cut flowers) when treated and managed according to current farming practices.

- **Farmland of Local Importance.** Land that is either currently producing crops or has the capability to do so. It is land other than Prime Farmland, Farmland of Statewide Importance, or Unique Farmland, but it may be important to the local economy due to its productivity.
- **Grazing Land.** Land on which the existing vegetation, whether grown naturally or through management, is suitable for livestock grazing.

However, for the purpose of environmental review, CEQA defines Farmland as Prime Farmland, Unique Farmland, and Farmland of Statewide Importance.¹

Agricultural Context

California is the country's leading agricultural producer and exporter. The Planning Area is located in Alameda County, which ranked 45th out of 58 California counties for gross value of agricultural production at \$54,850,000.² The county's top four commodities by gross value in 2018 were grapes/wine, cattle, miscellaneous nursery products, and pasture/range. There are 183,282 acres of farmland in Alameda County.³ Approximately 80 percent of this farmland is used as pastureland.

In the State of California, productive farmland acreage has been gradually declining, due primarily to the conversion of farmland to non-agricultural uses. Between 1984 and 2010, the area of farm and grazing lands in the state declined by more than 1.4 million acres, including a loss of 662,000 acres of Prime Farmland, the farmland type with the best soils for agricultural production.⁴ While the average annual acreage count has been decreasing since 1984, Alameda County has seen an increase in the total area of farmland between 2012 and 2017, gaining approximately three percent, or 5,498 acres of land.⁵

¹ Public Resources Code Section 21060.1

² California Department of Food & Agriculture. 2020. California Agricultural Statistics Review 2019-2020. Available: https://www.cdfa.ca.gov/Statistics/PDFs/2020_Ag_Stats_Review.pdf. Accessed: March 15, 2022.

³ United States Department of Agriculture. 2017. Census of Agriculture County Profile, Alameda County California. Available: https://www.nass.usda.gov/Publications/AgCensus/2017/Online_Resources/County_Profiles/California/cp06001.pdf. Accessed: March 15, 2022.

⁴ California Department of Conservation Division of Land Resource Protection (DLRP). 2015. California Farmland Conversion Report 2015. Available: https://www.conservation.ca.gov/dlrp/fmmp/Documents/fmmp/pubs/2010-2012/FCR/FCR%202015_complete.pdf. Accessed: March 16, 2022.

⁵ United States Department of Agriculture. 2017. Census of Agriculture County Profile, Alameda County California. Available: https://www.nass.usda.gov/Publications/AgCensus/2017/Online_Resources/County_Profiles/California/cp06001.pdf. Accessed: March 15, 2022.

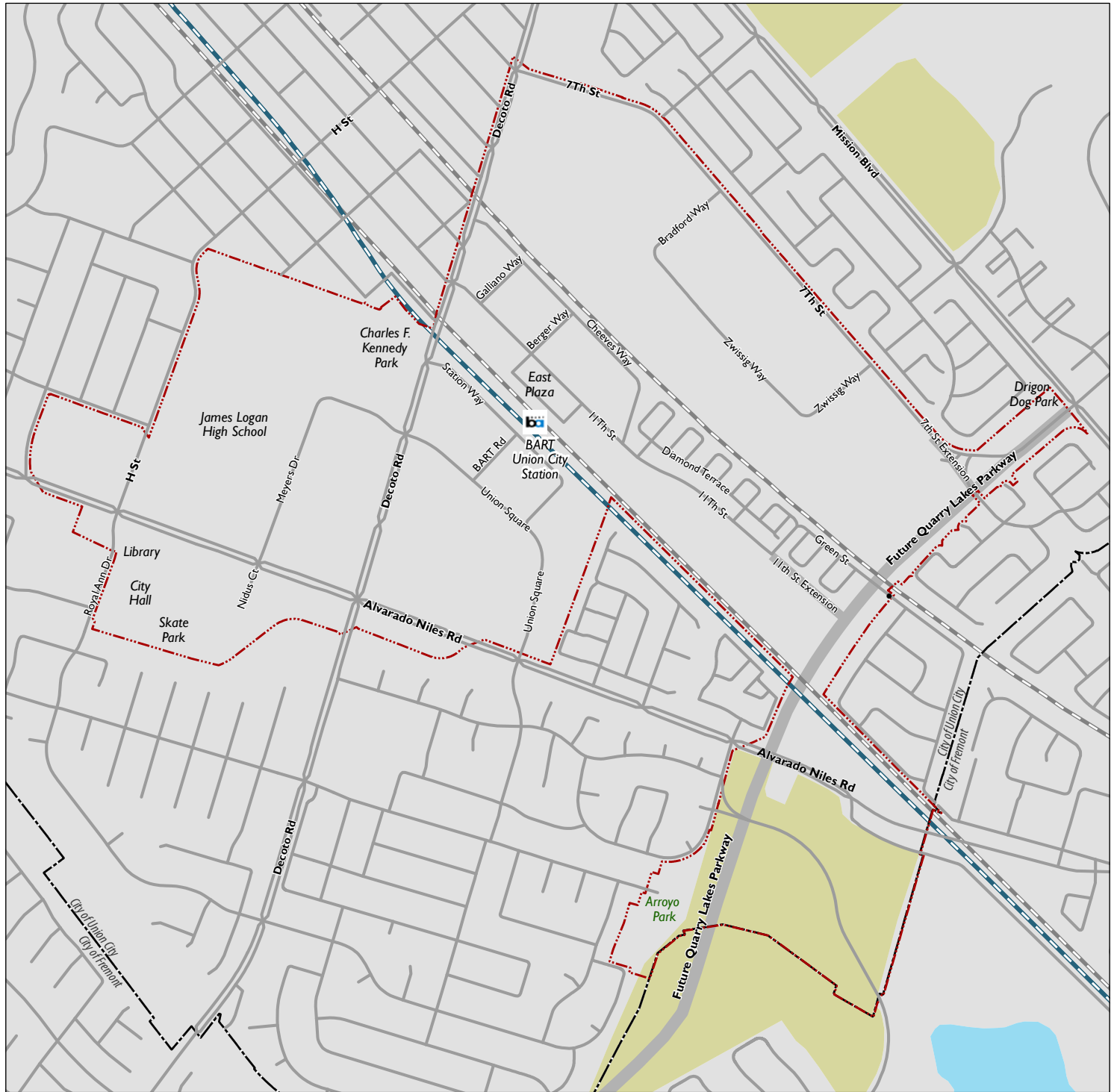
Planning Area Overview

While the Planning Area is a previously developed area located entirely within the City limit in the highly urbanized context of the San Francisco Bay Area, there is some land in agricultural use within the Gateway subarea. Specifically, this land includes the Silva Farm in the northwest of the Gateway subarea as well as land surrounding the Peterson Farmhouse nearby. Other surrounding existing uses in the Gateway subarea include grassy open spaces and single-family homes.

Figure 3.14-1 illustrates the locations of lands within the Planning Area classified as farmland by the FMMP. As shown, the vast majority of the Planning Area is classified as Urban and Built-Up Land with a small portion of the total area classified as Grazing Land. There are no areas of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance within the Planning Area. Approximately 41 acres within the Planning Area is designated as Grazing Land.

No land within the Planning Area is currently zoned Agricultural (A). As shown in Figure 3.14-2, the western portion of the subarea is zoned as Open Space (where agricultural uses are permitted), while the eastern portion of the subarea is primarily zoned for residential uses (RM 2500 and RM 1500-HE), with some smaller parcels in the northeastern part zoned Private Institutional (PI), Civic Facility (CF), and Community Commercial (CC). As part of the Specific Plan update process, the zoning within the Gateway subarea will be updated for consistency with the General Plan update that occurred in December 2019. Specifically, the area currently zoned Private Institutional will be rezoned to RM 1500.

Figure 3.14-1: Farmland

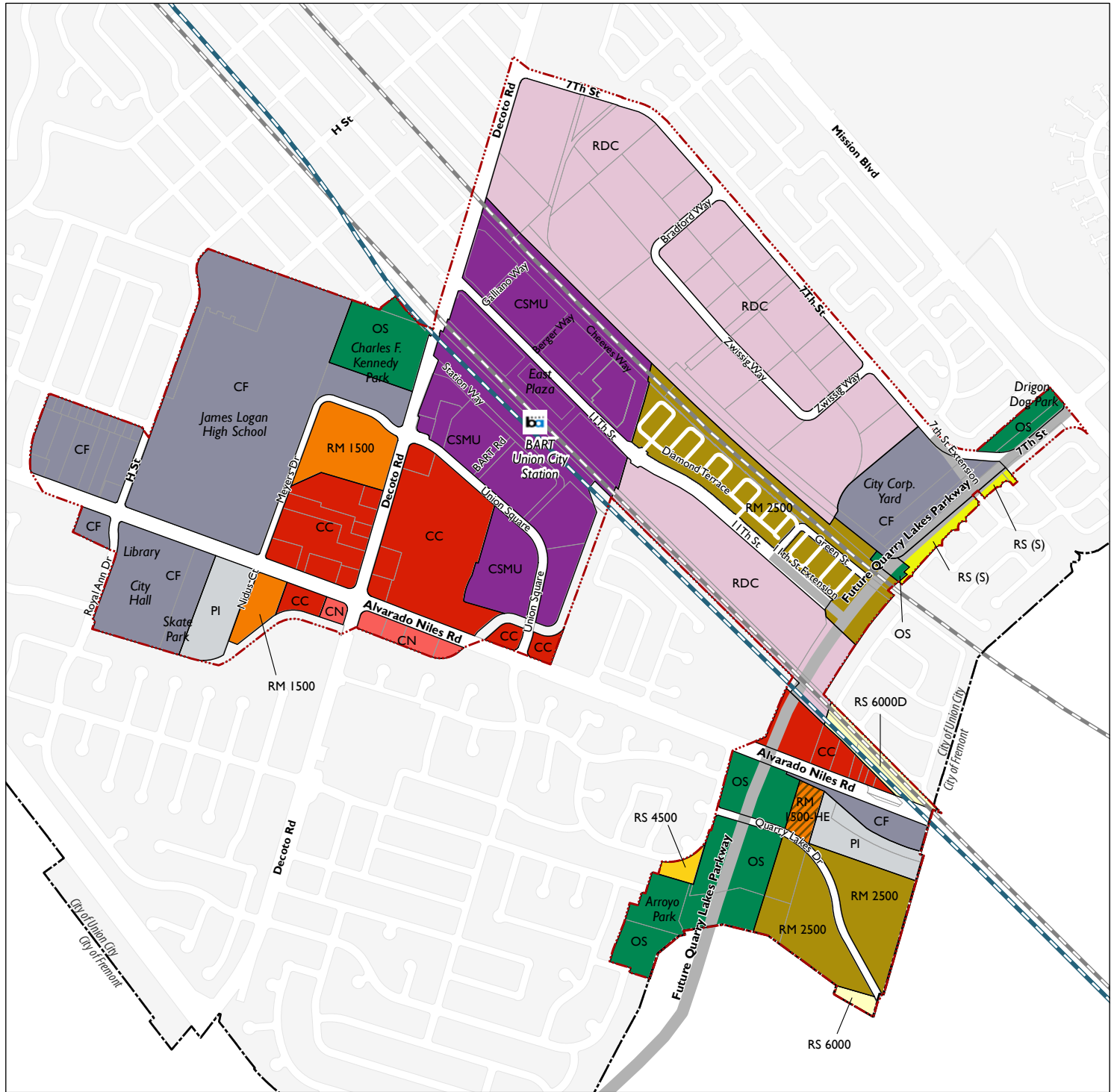


















- Prime Farmland
- Farmland of Statewide Importance
- Unique Farmland
- Grazing Land
- Urban and Built Up Land
- Water
- Other Land
- Union City Station District
- Union City Limit
- Union City BART Station
- BART
- Railroad

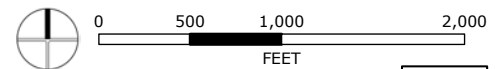


Source: Farmland Mapping and Monitoring Program, Alameda County, 2018; City of Union City, 2019; Alameda County GIS, 2019.

Figure 3.14-2: Current Zoning



- | | | |
|--|--|--|
|  RS 6000, Single Family Residential |  RM 1500, Multi-Family Residential |  CSMU, Station Mixed Use Commercial |
|  RS 6000D, Single Family Residential, DIPSA |  RM 1500-HE, Multi-Family Residential - Housing Element Overlay |  RDC, Research and Development Campus |
|  RS (S), Single Family Residential/Special DIPSA |  CN, Neighborhood Commercial |  OS, Open Space |
|  RS 4500, Single Family Residential |  CC, Community Commercial |  CF, Civic Facility |
|  RM 2500, Multi-Family Residential | |  PI, Private Institutional |
| | |  Union City Station District |
| | |  Union City Limit |



REGULATORY SETTING

Federal Regulations

U.S. Department of Agriculture Natural Resources Conservation Service

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) maps soils and farmland uses to provide comprehensive information necessary for understanding, managing, conserving, and sustaining the nation's limited soil resources. In addition to many other natural resource conservation programs, the NRCS manages the Farmland Protection Program, which provides funds to help purchase development rights to keep productive farmland in agricultural uses. Working through existing programs, USDA joins with state, tribal, or local governments to acquire conservation easements or other interests from landowners.

Federal Farmland Protection Policy Act, 7 U.S. Code Section 4201 and 7 Code of Federal Regulations 658

The NRCS oversees the Farmland Protection Policy Act (FPPA) (7 U.S. Code [USC] Section 4201 et seq.; see also 7 Code of Federal Regulations [CFR] 658). The FPPA (a subtitle of the 1981 Farm Bill) is national legislation with the following stated purpose: "to minimize the extent to which federal programs contribute to the unnecessary conversion of farmland to nonagricultural uses." The FPPA applies to projects and programs that are sponsored or financed in whole or in part by the federal government and does not apply to private construction projects subject to federal permitting and licensing, projects planned and completed without assistance from a federal agency, federal projects related to national defense during a national emergency, or projects proposed on land already committed to urban development. The FPPA spells out requirements to ensure federal programs to the extent practical are compatible with state, local, and private programs, and policies to protect farmland and calls for the use of the Land Evaluation and Site Assessment (LESA) system to aid in analysis.

State Regulations

Farmland Mapping and Monitoring Program

The California Department of Conservation FMMP classifies farmland into five different categories based on soil type and current land use, as described above in the Physical Setting. The minimum mapping unit is 10 acres, unless specified.⁶

CEQA Section 21095 and CEQA Guidelines, Appendix G, together, define Prime, Unique, and Farmland of Statewide Importance as "Farmland," whose conversion may be considered a significant impact.

⁶ California Department of Conservation. 2019. Important Farmland Categories. Accessed at: <https://www.conservation.ca.gov/dlrp/fmmp/Pages/Important-Farmland-Categories.aspx>.

California Farmland Conservancy Program

The California Farmland Conservancy Program (Public Resources Code Section 10200 et seq.) supports the voluntary granting of agricultural conservation easements from landowners to qualified nonprofit organizations, such as land trusts, as well as local governments. Conservation easements are voluntarily established restrictions that are permanently attached to property deeds, with the general purpose of retaining land in its natural, open-space, agricultural, or other condition while preventing uses that are deemed inconsistent with the specific conservation purposes expressed in the easements. Agricultural conservation easements define conservation purposes that are tied to keeping land available for continued use as farmland. Such farmlands remain in private ownership and the landowner retains all farmland use authority, but the farmland is restricted in its ability to be subdivided or used for non-agricultural purposes, such as urban uses.

California Land Conservation Act (Williamson Act)

Williamson Act Contracts

The California Land Conservation Act (Government Code Section 51200 et seq.) of 1965, commonly known as the Williamson Act, provides a tax incentive for the voluntary enrollment of agricultural and open space lands in contracts between local government and landowners. The contract restricts the land to agricultural and open space uses and compatible uses defined in State law and local ordinances. An agricultural preserve, which is established by local government, defines the boundary of an area within which a city or county will enter into contracts with landowners. Local governments calculate the property tax assessment for lands under contract based on the actual use of the land rather than the potential land value assuming full development.

Williamson Act contracts are effective for periods of 10 years and longer. The contract is automatically renewed each year, maintaining a constant, 10-year contract, unless the landowner or local government files to initiate non-renewal. Should that occur, the Williamson Act would terminate 10 years after the filing of a notice of non-renewal. Only a landowner can petition for a contract cancellation. Tentative contract cancellations can be approved only after a local government makes specific findings and determines the cancellation fee to be paid by the landowner. There are no Williamson Act contracts located within the City limits.

The State of California has the following policies regarding public acquisition of and locating public improvements on lands in agricultural preserves and on lands under Williamson Act contracts (Government Code Section 5129051295):

- Avoid locating federal, State, or local public improvements and improvements of public utilities, and the acquisition of land, in agricultural preserves;
- Locate public improvements that are in agricultural preserves on land other than land under Williamson Act contract; and
- Any agency or entity proposing to locate such an improvement, in considering the relative costs of parcels of land and the development of improvements, consider the value to the public of land, particularly prime agricultural land, in an agricultural preserve.

Farmland Security Zone Contracts

Since 1998, another option in the Williamson Act Program has been established with the creation of Farmland Security Zone contracts. A Farmland Security Zone is an area created within an agricultural preserve by a board of supervisors upon the request of a landowner or group of landowners. Farmland Security Zone contracts offer landowners greater property tax reduction and have a minimum initial term of 20 years. Like Williamson Act contracts, Farmland Security Zone contracts renew annually unless a notice of non-renewal is filed. Potential cancellation of Williamson Act and Farmland Security Zone contracts would be addressed in subsequent project-level documents.

Open Space Subvention

Under the Open Space Subvention Act of 1971, the State has provided annual subvention payments to counties for foregone property tax revenue due to Williamson Act contracts. The Budget Act of 2009 virtually eliminated these payments for the 2009-10 fiscal year. While partial funding was restored for the 2010-11 fiscal year, long-term State support to counties for agricultural land conservation is uncertain. Despite the elimination of most payments from the State, the California Department of Conservation has continued to release status reports of lands under Williamson Act contracts, with the most recent release occurring in 2015.

Solar Use Easements

In 2011, California passed Senate Bill (SB) 618 (Chapter 596, Statutes of 2011) authorizing property owners under Williamson Act or Farmland Security Zone contracts to rescind the contract and simultaneously enter into a solar-use easement. Solar-use easements require the land to be used for solar photovoltaic facilities for a term of 20 years.

Local Regulations

Union City General Plan (UC 2040)

The Union City General Plan (UC 2040) includes the following goals and policies associated with agricultural resources:

Policy RC-1.1: Provide for a Variety of Open Spaces. The City shall provide a variety of open spaces including open space for public use and enjoyment and for the protection of agricultural uses including grazing, wildlife habitats, and scenic vistas.

Union City Municipal Code

The Union City Zoning Ordinance (Title 18 of the Union City Municipal Code) includes Chapter 18.48, Agricultural (A) District. This district is included in the Zoning Ordinance with the intent to preserve lands best suited for agriculture use from encroachment of incompatible uses, to preserve in agriculture use land suited to eventual development in other uses, to prevent premature development of certain lands, including lands within the “flood plain,” which will eventually be appropriated for

urban uses, until the installation of streets, drainage improvements, utilities and community facilities makes orderly development feasible and possible.

Within Union City, the A Zoning District is primarily located in the southwest and northeast edges of the city. There are no areas zoned A within the Planning Area.

Impact Analysis

For the purposes of this EIR, a significant impact would occur if implementation of the proposed Plan would:

Criterion 1: 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;

Criterion 2: Conflict with existing zoning for agricultural use, or a Williamson Act contract;

Criterion 3: Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use.

METHODOLOGY AND ASSUMPTIONS

Farmland resources within the Planning Area were assessed based on the California Department of Conservation FMMP, a biennial report and mapping resource on the conversion of farmland and grazing land. Williamson Act contract lands were identified by geographic information systems (GIS) data from Alameda County. Using these sources, the Proposed Plan was analyzed for potential conversion of Farmland, conversion of Williamson Act contract lands, and other changes resulting from the Proposed Plan that may result in the conversion of farmland to urban uses.

RELEVANT PROPOSED PLAN GOALS AND POLICIES

Land Use

P-LU-25 **The Gateway** – Support a mix of housing types including an “agri-hood” concept, where housing and on-site community facilities are integrated with agricultural uses, such as community gardens, that could be public or private.

IMPACTS

Impact 3.14-1 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)

As noted above, the Planning Area is a previously developed area located entirely within the City limit in the highly urbanized context of the San Francisco Bay Area. According to the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP), there are no areas of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance within the Planning Area or within the city. Therefore, implementation of the Proposed Plan would have no impact on the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency to non-agricultural use.

Mitigation Measures

None required.

Impact 3.14-2 Conflict with existing zoning for agricultural use, or a Williamson Act contract. (No Impact)

No areas within the Planning Area are currently zoned Agriculture (A) and there are no Williamson Act contracts within the Planning Area or the City. As shown in Figure 3.14-2, the Gateway subarea is primarily zoned for multi-family residential and open space uses, with some smaller parcels zoned for commercial and private institutional uses. As part of the Specific Plan update process, the zoning within the Gateway subarea will be updated for consistency with the 2040 General Plan, adopted in December 2019. Specifically, the area currently zoned Private Institutional will be rezoned to RM 1500.

According to Chapter 18.32, Residential Districts, of the Municipal Code, agricultural uses are permitted in all residential zoning districts. Chapter 18.36, Commercial Districts, permits public grounds and landscaped areas within all commercial zoning districts. Further, Proposed Plan policy P-LU-25 seeks to promote an integrated “agri-hood” within the Gateway subarea, where housing is integrated with agricultural uses, such as community gardens that could be public or private. Therefore, implementation of the Proposed Plan would have no impact with respect to conflicts with existing zoning for agricultural use or Williamson Act contracts in the Planning Area.

Mitigation Measures

None required.

Impact 3.14-3 Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use. (*Less than Significant*)

As noted above, the Planning Area is a previously developed area located entirely within the City limit in the highly urbanized context of the San Francisco Bay Area. However, as described above, Grazing Land does exist in the Planning Area and there is some land within the Gateway subarea that is currently in agricultural use, although there is no land within the Planning Area currently zoned for Agriculture and the applicable 2040 General Plan land use designations for the Gateway subarea include Open Space, Residential (10 - 17 du/ac), Residential (17 - 30 du/ac), and Civic Facility. These designations were also applied in the prior General Plan, adopted in 2002.

Implementation of the Proposed Plan could potentially result in the loss of Grazing Land in areas designated Residential 10 - 17, Residential 17 - 30, and Private Institutional. However, as discussed above, CEQA defines Farmland as Prime, Unique, and Farmland of Statewide Importance only. As such, the conversion of Grazing Land to a non-agricultural use would not constitute conversion of Farmland. Furthermore, the Proposed Plan would not change 2040 General Plan land use designations for any of the parcels currently being used for agricultural activities. As a result, impacts related to conversion of Farmland to non-agricultural use resulting from implementation the Proposed Plan would be less than significant.

Mitigation Measures

None required

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3.15 Effects Found Not to be Significant

This chapter is based on input for the Union City Station Area Specific Plan Environmental Impact Report (EIR) Notice of Preparation (NOP) dated January 26, 2021 and contained in Appendix A of this Draft EIR. The NOP was circulated for public review between January 26, 2021 and February 24, 2021. The NOP identified certain impacts for which there is no likelihood of a significant impact due to the location and characteristics of the Planning Area. This chapter provides a brief description of these effects found not to be significant, based, in part, on the NOP evaluation, NOP comments, and/or more detailed analysis conducted as part of the EIR preparation process. Agriculture and Forestry Resources, Mineral Resources, and Wildfire are the only issue areas not addressed in detail in the setting and impacts sections. There were numerous NOP comments that expressed the need to preserve the agricultural farmland on the Peterson and Ramirez farms within the Gateway subarea. Comments requested that the Proposed Plan create a priority conservation area for Ramirez Farm's 27 acres of farmland and restore the farmland status to Statewide importance by rezoning mid-density housing back to farmland. Two commenters suggested that the Ramirez and Peterson farms be preserved as part of a park and greenspace.

Forestry Resources

A significant impact would occur if implementation of the Proposed Plan would result in one or more of the following:

Criterion 1: Conflict with existing zoning for, or cause rezoning of, forest land (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)); or

Criterion 2: Result in the loss of forest land or conversion of forest land to non-forest use.

Forest land is defined as land that can support ten-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits (Public Resources Code Section 12220[g]). Timberland is defined as land, other than land owned by the federal government and land designated by the State Board of Forestry and Fire Protection as experimental forest land, which is available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products, including Christmas trees (Public Resources Code Section 4526). Timberland Production Zone designates an area which has been zoned pursuant to Section 51112 or 51113 and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and

compatible uses (Government Code section 51104[g]). While portions of the Planning Area support tree cover, these lands are interspersed with development and are not managed for forest resources or used for commercial timber production, and therefore do not meet the Public Resources Code Section 12220[g] definition of Forest land. These areas are relevant to the Planning Area's biological resources, and are evaluated in terms of special-status species, sensitive habitats, and related regulations and plans in Section 3.4: Biological Resources. Additionally, there are no areas designated as Timberland Production Zone in the planning area. Therefore, the Proposed Plan would have no impact on forest resources.

Mineral Resources

A significant impact would occur if implementation of the Proposed Plan would result in one or more of the following:

Criterion 1: 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; or

Criterion 2: 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.

Much of the land in the Planning Area has been previously graded or developed. While quarries have historically operated adjacent to Union City in the City of Fremont, no mining occurs within the Planning Area today. A known deposit of regionally significant construction-grade aggregate (sand, gravel, crushed rock) minerals exists within the City of Union City's jurisdiction in the vicinity of O'Connell Lane, in the hillside area located east of State Route 238^{1,2}. However, the area where this deposit occurs is not within the Planning Area. The Proposed Plan would not facilitate new development in the vicinity of the mineral deposit, and therefore would not result in the loss of availability of either a known mineral resource deposit or a locally important mineral resource recovery site. As such, the Proposed Plan would have no impact on the availability of mineral resources within Union City.

¹ California Department of Conservation, Division of Mines and Geology. 1996. Update Of Mineral Land Classification: Aggregate Materials In The South San Francisco Bay Production-Consumption Region. Available at: <https://maps.conservation.ca.gov/cgs/informationwarehouse/mlc/>

² City of Union City. 2040 Union City General Plan Update Environmental Impact Report. 2019.

Wildfire

A significant impact would occur if the Planning Area was located in or near State responsibility areas or lands classified as very high fire hazard severity zones and implementation of the Proposed Plan would result in one or more of the following:

- Criterion 1: Substantially impair an adopted emergency response plan or emergency evacuation plan;**
- Criterion 2: Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire;**
- Criterion 3: 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 to the environment; or**
- Criterion 4: 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.**

In California, responsibility for wildfire prevention and suppression is shared by federal, State and local agencies. Federal agencies are responsible for federal lands in Federal Responsibility Areas. The State of California has determined that some non-federal lands in unincorporated areas with watershed value are of statewide interest and have classified those lands as State Responsibility Areas (SRA), which are managed by CAL FIRE. All incorporated areas and other unincorporated lands are classified as Local Responsibility Areas (LRA).

While nearly all of California is subject to some degree of wildfire hazard, there are specific features that make certain areas more hazardous. CAL FIRE is required by law to map areas of significant fire hazards based on fuels, terrain, weather and other relevant factors (Public Resources Code [PRC] 4201-4204 and California Government Code 51175-89). The primary factors that increase an area's susceptibility to fire hazards include slope, vegetation type and condition, and atmospheric conditions. CAL FIRE maps fire hazards based on zones, referred to as Fire Hazard Severity Zones. CAL FIRE maps three zones on SRA: 1) Moderate Fire Hazard Severity Zones; 2) High Fire Hazard Severity Zones; and 3) Very High Fire Hazard Severity Zones. Only the Very High Fire Hazard Severity Zones are mapped on for LRA. Each of the zones influence how people construct buildings and protect property to reduce risk associated with wildland fires. Under state regulations, areas within very high fire hazard risk zones must comply with specific building and vegetation management requirements intended to reduce property damage and loss of life within these areas.

The Planning Area is entirely within the Union City limit and therefore contains no SRA. Further, according to CAL FIRE mapping, no land within the Planning Area boundaries or City limits is designated as a Very High Fire Hazard Severity Zone (CAL FIRE 2008). While SRA mapping indicates that both High and Very High Fire Hazard Severity Zone occurs adjacent to the City limits

around the hillside area east of State Route 238, this area is about 1.5 miles away from the Planning Area in unincorporated Alameda County. Fire hazard prevention services in the SRA are provided by the State of California and the Alameda County Fire Department. The Alameda County General Plan Safety Element outlines policies and development standards to mitigate wildfire hazards, including limiting development in hillside areas, requiring new and existing development to provide adequate water and firefighting facilities, and requiring new development to adhere to the Alameda County Fire Protection Master Plan and Fire Hazard Mitigation Plan. Given that the Planning Area does not contain any Very High Fire Hazard Severity Zones, is not in a wildland urban interface area, and that there are countywide protections in place to mitigate fire hazards in the SRA adjacent to the City limit to the east of the Planning Area, the Proposed Plan would have a less than significant impact related to wildfire risk.

4 Alternatives Analysis

The Union City Station District Specific Plan (Proposed Plan) is described and analyzed in Chapter 3, Sections 3.1 through 3.14, of this Environmental Impact Report (EIR), with an emphasis on potentially significant impacts and recommended mitigation measures to avoid the impacts. The California Environmental Quality Act (CEQA) Guidelines require a description and comparative analysis of a range of alternatives to the Proposed Plan that could feasibly attain the objectives of the Proposed Plan while avoiding or substantially lessening potential impacts. The CEQA Guidelines also require that the environmentally superior alternative be designated. If the alternative with the least environmental impact is the No Project Alternative, then the EIR must also designate the next most environmentally superior alternative.

The following discussion is intended to inform the public and decision-makers about feasible alternatives that would avoid or substantially lessen the significant effects of the Proposed Plan. It also compares such alternatives to the Proposed Plan. Section 15126.6 of the CEQA Guidelines states that:

An EIR shall describe a range of reasonable alternatives to the project, or the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation.

CEQA Section 15126.6(f) states that the alternatives in an EIR should be governed by a “rule of reason.” It requires the EIR to set forth the alternatives necessary to permit a reasoned choice that would avoid or substantially lessen any significant effects and feasibly attain most of the project objectives. Project objectives are described in Chapter 2 of this EIR. The Proposed Plan would result in significant and unavoidable impacts related to aesthetics (Impact 3.1-1), air quality (Impacts 3.2-2, 3.2-3, and C-AQ-1), greenhouse gas (GHG) emissions (Impact 3.4-1B), transportation (Impact 3.12-2), and historic resources (Impacts 3.5-1 and 3.5-2). CEQA Guidelines Section 15126.6(e) requires consideration of a No Project Alternative in every EIR. In the case of the Proposed Plan, the No Project Alternative is a scenario in which the Proposed Plan is not adopted. The following discussion includes an evaluation of the No Project Alternative as well as the Increased Development Alternative and Reduced Development Alternative. A “Green” Energy Alternative and Reconfigured Growth Alternative were also considered along with preservation of the historically significant Peterson House; however, for reasons discussed in Section 4.2, below, these alternatives were determined to be infeasible and therefore are not analyzed in detail.

VISION AND OBJECTIVES

To identify community priorities for the Planning Area and help guide the preparation of the Proposed Plan, a vision statement and objectives were developed at the outset of the process. These guiding principles, stated below, serve as the project objectives for purposes of CEQA analysis.

VISION

“The Union City Station District Specific Plan is envisioned as a dynamic, diverse, transit-oriented area, where people live, work, and socialize. Union City welcomes people of all ages, income levels, and backgrounds, and it’s this diversity that is key to the area’s vitality. The Station District is envisioned to grow in a manner that continues to meet the needs of its current and future residents, retain, and expand its business base, and attract new businesses. The Station District will be connected through a comprehensive network of trails, paseos, bikeways, and pedestrian-friendly streets and parks and public spaces.

The Station District will continue to grow and accommodate a mix of uses including a range of housing options a focus on employment generating uses and opportunities to enhance retail uses. The plan will also focus on a range of mobility options to decrease the reliance on the automobile. We envision a range of community and public spaces, on both public and private land, throughout the Station District that provide a variety of programming and activation opportunities.”

OBJECTIVES

The guiding principles stated below were developed during the Specific Plan process and, for purposes of CEQA analysis, serve as the project objective. They direct the overall strategy, policies, design, and investments that are included in the Station District Specific Plan and are integrated into concepts for each subarea of the Specific Plan.

- **Promote a Vibrant, Mixed Use Community.** Foster an integrated urban community with a diverse mix of residential, commercial, office, industrial, and civic uses for residents, workers, and visitors.
- **Create a Well Connected District.** Extend the existing east-west central spine to link the Marketplace, Intermodal Station, the Core, and Station East, prioritizing pedestrian and bicycle connections. Create an interconnected network of streets, sidewalks, bicycle lanes, pathways, and multi-use trails that knit the district together and enable people to traverse the area easily and directly on foot or bicycle.
- **Promote a Network of Open Space Amenities.** Establish a cohesive system of parks and plazas to enhance the area’s livability and provide open spaces within walking distance of residences and businesses, including linking greenways that enable active recreation.
- **Ensure High Quality Design.** Promote building and landscape design that create a sense of place and reflect the district’s unique contemporary identity, with unified streetscapes, signage and urban design elements that foster identity and a sense of place.
- **Promote Sustainability.** Continue to promote green leadership in Union City by maintaining and expanding the Station District as a sustainable and healthy community with sustainable building and landscape design, sustainable water use and irrigation

practices, and reduced energy use. Encourage outdoor and active living with more opportunities for healthy choices including walking and biking, readily available access to transit, housing in close proximity to workplaces, and access to parks, play spaces and open space for kids and families to enjoy.

- **Embrace Diversity.** Accommodate the needs of people of diverse backgrounds, interests, and income levels, creating an inclusive, accessible, inviting, and safe place for all.
- **Support Housing Development and Provide a Variety of Housing Types.** Support a range of housing opportunities, including affordable housing to address Union City's housing needs and the State's housing objectives for the area.
- **Ensure Long-Term Fiscal Sustainability.** Provide a range of jobs, retail, and housing uses to ensure fiscal sustainability and support necessary infrastructure improvements.

4.1 Alternatives Analyzed in This EIR

NO PROJECT ALTERNATIVE

Analysis of the No Project Alternative considers what would be reasonably expected to occur in the foreseeable future if the Proposed Plan were not adopted and development proceeded as envisioned under current plans and regulations, including the Union City General Plan (UC 2040). This alternative would keep all current land use designations and definitions applicable to the Planning Area from UC 2040. The new Corridor Mixed Use Commercial designation would not be applied in the Gateway subarea, and the Marketplace Mixed Use designation would not be applied in The Marketplace subarea. Roadway improvements, parks, paseos, and plazas in the Proposed Plan that are not included in UC 2040 or the updated Bicycle and Pedestrian Master Plan would not be constructed. This includes a finer-grained network of streets in all subareas. However, the Station East Residential/Mixed Use Project within the Station East subarea would be constructed under this alternative because that project was approved by the City Council on June 8, 2021, separate from the Proposed Plan. The No Project Alternative would implement all UC 2040 policies but would not implement the additional project objectives of the Proposed Plan, including the goals, policies, and design standards that specifically guide development within the subareas, improve multi-modal mobility, and support sustainability goals.

Overall, the No Project Alternative is projected to result in 6,900 net new residents, 2,900 new housing units, and 11,500 new jobs in the Planning Area by 2040.

INCREASED EMPLOYMENT ALTERNATIVE

This alternative would increase employment density in proximity to the Union City Intermodal Station in order to encourage more people to use public transit for their commute and provide additional job opportunities for people currently or prospectively living within walking distance in the Planning Area. Although the land use mix would change, this alternative is assumed to roughly use the same amount (acreage) of land as the Proposed Plan.

Studies have shown that locating jobs in proximity to transit is more strongly correlated with transit ridership than locating housing near transit. As such, this alternative would address the significant

impacts of the Proposed Plan related to vehicle miles traveled (VMT). To accomplish this, a new Transit-Oriented Employment designation that seeks to foster high-tech research and development (R&D) and office space with a floor area ratio (FAR) of up to 4.5 would be applied to the Restoration Site within the Core subarea. Residential uses would not be permitted in this designation. This new designation would not allow housing development in order to prioritize employment-oriented uses in proximity to the station. In addition, the range of allowable residential density within the Station Mixed Use Commercial designation would be reduced to 60 to 100 du/acre, compared to 100 to 165 du/ac under the Proposed Plan. This alternative would implement the project objectives of the Proposed Plan; however, it would result in less housing than other alternatives. Overall, the Increased Employment Alternative is projected to increase the allowable concentration of office and R&D land uses in The Core subareas by 7.6 percent and result in approximately 6,000 new residents, 2,500 new housing units, and 17,300 new jobs in the Planning Area by 2040.

REDUCED DEVELOPMENT ALTERNATIVE

Buildout of the Proposed Plan would result in construction-related impacts associated with air quality, GHG emissions, and noise as well as operational air quality and VMT impacts. Therefore, a Reduced Development Alternative that would result in less construction and, by extension, generate lower levels of air pollutants (including GHGs), noise, and VMT, and would expose fewer sensitive receptors to significant impacts as proposed. Because the No Project Alternative also represents a reduced level of development compared to the Proposed Plan, this alternative would involve restoring the land use designations and density/intensity standards that were in force under the 2002 Union City General Plan, with revisions that would allow for additional residential density on the Restoration Site in the Core sub area of the Station District, adjacent to the Union City Intermodal Station. Under this alternative, the Retail Commercial designation would apply to The Marketplace subarea, and there would be no policy to ensure the replacement of retail during redevelopment, which would limit the amount of net new retail on the site so as to minimize the increase in vehicle trips to the site from outside the Planning Area and thus limit any increase in VMT. This alternative would implement the project objectives in the Proposed Plan; however, the reduced level of development would not allow for the buildout potential for housing and jobs compared to the levels in the Proposed Plan. Overall, the Reduced Development Alternative is projected to result in approximately 4,400 new residents, 1,800 new housing units, and 6,000 new jobs in the Planning Area by 2040.

Table 4.1-1: Summary of Alternatives

	<i>Planning Area Total</i>		
	<i>Population</i>	<i>Housing (units)</i>	<i>Jobs</i>
Existing (2020)	5,000	1,720	2,300
Proposed Plan – (2040) Net New	9,400	3,930	15,900
Proposed Plan – (2040) Existing and Net New	14,400	5,650	18,200
No Project Alternative (2040) – Net New	6,900	2,900	11,500
No Project Alternative (2040) – Existing and Net New	11,900	4,620	13,800
Increased Employment Alternative (2040) – Net New	6,000	2,500	17,300
Increased Employment Alternative (2040) – Existing and Net New	11,000	4,220	19,600
Reduced Development Alternative (2040) – Net New	4,400	1,800	6,000
Reduced Development Alternative (2040) – Existing and Net New	9,400	3,520	8,300

Source: Dyett & Bhatia, 2021

4.2 Alternatives Considered but Not Evaluated in Detail in this EIR

Two alternatives to the Proposed Plan that could avoid or substantially reduce the significant impacts of the Proposed Plan were considered, a “Green” Energy Alternative and a Reconfigured Growth Alternative. However, as described below, these alternatives were determined to be infeasible and therefore are not analyzed further.

“GREEN” ENERGY ALTERNATIVE

A “Green” Energy Alternative, designed to reduce significant impacts on air quality associated with area- and energy-source emissions during Proposed Plan operations, was considered. Although the Proposed Plan would foster transit-oriented development near the Union City Bay Area Rapid Transit station, Section 3.3, Air Quality, of the Draft EIR found that the Proposed Plan’s operational emissions would contribute to the Bay Area Air Basin’s existing violation of state and federal air quality standards and therefore result in significant air quality impacts during operations. This conclusion is based on an understanding that air pollutant emissions are associated with mobile-, area-, and energy-source categories.

The “Green” Energy Alternative would have retained the Proposed Plan’s development intensities and locations but would have lessened area- and energy-source emissions by the addition of policies in the Proposed Plan that establish the following:

- Requirements for electrification of buildings with fully electric kitchen stovetops and water heaters in residential, office, and retail buildings. No natural gas appliances or water heaters would be allowed, with some exceptions (restaurants).
 - Requirements for new developments to prohibit natural gas fireplaces in residential developments.
 - Requirements for new developments to incorporate electric heating, through a combination of heat pumps and radiant panels, in residential developments.
 - Requirements for cool roofs and/or walls and light-reflective paint. Cool roofs are designed to reflect more sunlight and absorb less heat than standard roofs, keeping buildings cooler in the summertime and thus reducing air-conditioning loads and associated energy demand.
 - Requirements for landscape equipment to be electric- or battery-powered. In addition, new development would be required to install electrical outlets on the exterior of buildings and/or near landscaped areas to provide adequate accessibility to power for operating equipment or recharging batteries.
 - Requirements for new developments associated with the Proposed Plan to incorporate rooftop solar panels and/or wind turbines to generate on-site electricity.
- OR
- Instead of “encouraging” zero net energy, development within the Proposed Plan area would require it.

Implementation of the above policies, as part of the “Green” Energy Alternative, would have reduced emissions from area and energy sources. However, it is not possible to quantify the precise extent of reductions for the majority of the measures for a plan-level analysis. The only measure that can be quantified with certainty is prohibiting natural-gas fireplaces. In addition, the measures included in the “Green” Energy Alternative could significantly increase the cost of development and hamper the financial feasibility of subsequent projects, and thus imperil the fulfillment of project objectives such as promoting a mixed-use district, creating new bicycle and pedestrian connections, ensuring fiscal sustainability, and supporting a range of housing options in the transit-oriented district. Furthermore, this alternative would not address the significant construction-related impacts of the Proposed Plan or the operational impacts associated with VMT and historic resources. Therefore, overall, it was determined that the “Green” Energy Alternative would not feasibly meet the project objectives and therefore is not analyzed further.

RECONFIGURED GROWTH ALTERNATIVE

A Reconfigured Growth Alternative, designed to address the significant environmental impacts of the Proposed Plan by increasing the concentration of uses near the Union City Intermodal Station, was considered, with the intention of promoting a development pattern that would generate lower levels of air pollutants, GHG emissions, noise, and VMT. To accomplish this, higher minimum and maximum FARs would need to be established in the Core and the Marketplace subareas, and FARs in the Station East and Gateway subareas would need to be lowered. The Station Mixed Use Commercial land use designation would be revised to increase the minimum allowable FAR from 1.0 to 2.5 and the maximum permitted FAR from 4.0 to 5.0. In addition, the maximum permitted FAR for the Marketplace Mixed Use designation would increase from 3.0 to 4.0. Intensities would

also be decreased under the Station East Mixed Use land use designation, from a maximum FAR of 3.0 to a maximum FAR of 2.0. Furthermore, to allow for this reconfiguration without changing overall buildout projections, the land use designation Residential with 17 to 30 du/acre in the Gateway subarea would be replaced by Residential with 10 to 17 du/acre.

Although these changes would achieve a reconfiguration of uses within the Planning Area, this alternative does not effectively address the significant impacts of the Proposed Plan. It also presents feasibility challenges that would inhibit progress toward the project objectives, such as promoting a mixed use district, creating new bicycle and pedestrian connections, ensuring fiscal sustainability, and supporting a range of housing options in the transit-oriented district. Specifically, the increased intensity standards under the Station Mixed Use Commercial and Marketplace Mixed Use designations would effectively require developers to construct taller buildings with additional internal circulation and safety features as well as underground parking or additional levels in parking structures, thereby significantly increasing the cost of development and hampering the financial feasibility of subsequent projects. In addition, as evidenced by numerous recent projects in the Bay Area, office/R&D space of the type suited to the needs of biotech firms is typically built in a campus format, not in taller buildings with the higher FARs that would be part of the Reconfigured Development Alternative. As such, the market feasibility of this alternative is in question. Moreover, because the level of development that would result from the alternative is the same as under the Proposed Plan, it would not address the construction-related impacts or operational emissions of the Proposed Plan. Similarly, although reconfiguration could have some limited benefit with respect to VMT, this alternative would include the same level of residential and retail development as the Proposed Plan. Therefore, overall, the Reconfigured Growth Alternative was determined to be infeasible and will not be analyzed further.

PRESERVATION OF THE HISTORIC PETERSON FARMHOUSE

To avoid a significant and unavoidable impact related to the physical demolition, destruction, relocation, or alteration of the historic Peterson Farmhouse or its immediate surroundings, preservation of the historic resource onsite was considered, but was found to be infeasible. As described more fully in Appendix H, there is no mechanism available for preserving the resource. The California Department of Transportation (Caltrans) is in the process of transferring the property to the City of Union City. Caltrans sought to complete a preservation covenant for the property, however, no enforcement entity for a preservation covenant could be identified. The City could not be the grantee as well as the enforcement entity and inquiries were made with several other organizations, including the California Preservation Foundation, the Mission Peak Heritage Foundation, and Union City Historical Museum, as to whether they would be willing or able to hold a preservation covenant on the property. No outside parties were willing or able to act as the enforcement entity for the property and therefore a preservation covenant could not be implemented. As such, preservation was determined to be infeasible and has not been analyzed further.

4.3 Impact Analysis of Alternatives

NO PROJECT ALTERNATIVE

Aesthetics

Under the No Project Alternative, development in the Planning Area would proceed as envisioned under the City's current plans and regulations, including UC 2040. As a Priority Development Area, the Planning Area has been identified for focused growth through high-density compact development to increase accessibility to transit. A key focus of UC 2040 is to plan for and accommodate transit-oriented development, and the 2040 General Plan envisions the Planning Area as an urban mixed-use environment that capitalizes on proximity to the Intermodal station where people are encouraged to live, work, shop, and play. Under this Alternative, the majority of Union City's population and employment growth would be targeted to occur in the Greater Station Area district, where land is designated for Commercial, Mixed Use, and Mixed-Use Commercial uses of increasing intensities, with the Station Mixed Use Commercial designation allowing for the tallest buildings (ranging from three stories to 160 feet) and the most compact residential density (60-165 units/net acre) given its immediate proximity to the Intermodal Station. The Proposed Plan retains the overall land use framework and assumed development densities/intensities of UC 2040, with some targeted changes that add intensity in the Marketplace and Gateway subareas. The higher intensities in the Proposed Plan would comply with the proposed design standards, goals, policies, and implementation measures, described in Chapter 3.1 of this EIR, that promote good design within new development, emphasize the visual quality of the public realm, reduce the impacts of light and glare, and design streetscapes that frame and protect views of the hills, therefore improving the visual character of the Planning Area. Continued implementation of UC 2040 under this Alternative would have similar benefits with respect to creating public art, inviting gathering places, and implementation of higher quality architectural standards because UC 2040 includes arts and culture policies. The Planning Area's visual character under this Alternative would thus be substantially similar to that under the Proposed Plan. Development under both alternatives would be consistent with applicable regulations governing scenic quality in the urbanized area, including the Zoning Code and General Plan. There are no state scenic highways within or visible from the Planning Area, thus neither alternative would have a significant impact of the destruction of resources within a state scenic highway.

Under this Alternative, UC 2040 goals and policies would minimize visual intrusion and assist in reducing potential obstructions of views of the scenic vistas associated with the open space and hillside areas of the city. Nevertheless, The potential exists for development in the Planning Area to obstruct views of the hillside area due the higher density / intensity development allowed, and while this new development would be consistent with the Planning Area's designation as a Priority Development Area (PDA) and the standards that govern it, as noted in the 2040 General Plan EIR, views of the foothills of the Coastal Range (i.e., hillside area) which frame the eastern edge of the city are considered scenic vistas and the development of buildings up to 160 feet in height in the Core subarea would obstruct view of the hillside area. While UC 2040 policies together with associated zoning standards would reduce these impacts to the maximum extent practicable, there are no mitigation measures available to avoid impacts of scenic vistas entirely. As such, this impact would remain significant and unavoidable as under the Proposed Plan. Overall, impacts of the No

Project Alternative would be equivalent to those under the Proposed Plan due to the similar intended character of transit-oriented development allowed in the Planning Area under UC 2040.

Air Quality

Under the No Project Alternative, development in the Planning Area would proceed as envisioned under the City's current plans and regulations, including UC 2040. Demolition and construction activities, as well as new associated operational sources of air pollutants on the project site, would still occur, but only at currently projected levels for the site and accounted for under existing plans (approximately a quarter less than under the Proposed Plan; refer to Table 4.1-1, above). This alternative would thus be expected to have a shorter overall duration for construction activities, which would result in reduced impacts from construction-related emissions but would not eliminate the impacts entirely. In addition, operational emissions under the No Project Alternative from area and building energy sources would be less than those of the Proposed Plan because approximately 25 percent fewer new housing units and jobs would be generated. Consequently, fewer vehicle trips would be generated under the alternative, and operational emissions would be reduced but not eliminated. Therefore, applicable mitigation measures adopted in the UC 2040 EIR would be implemented as necessary to reduce construction-related and operational air quality impacts under the No Project Alternative.

Biological Resources

Under the No Project Alternative, development in the Planning Area would proceed as currently projected for the site and accounted for under existing plans, including UC 2040. Demolition and construction activities would still occur but only at currently projected levels for the site under existing plans (approximately a quarter less than under the Proposed Plan). Because the No Project Alternative would still allow development, the No Project Alternative would have similar but slightly reduced biological resources impacts compared to those of the Proposed Plan, which would result in less-than-significant impacts with mitigation related to special-status species and a less than cumulatively considerable contribution to significant cumulative biological resources impacts. Therefore, applicable mitigation measures adopted in the UC 2040 EIR would be implemented as necessary to reduce biological resources impacts under the No Project Alternative.

Cultural, Tribal, and Historic Resources

Under the No Project Alternative, development in the Planning Area would proceed as envisioned under the City's current plans and regulations, including UC 2040. Excavation, grading, or demolition activities in the Planning Area would still occur but only at levels currently projected for the site and accounted for under existing plans. Because the No Project Alternative would still allow development (although at slightly lower levels of intensity/density than the Proposed Plan), the No Project Alternative would have similar but slightly reduced impacts related to cultural resources, tribal cultural resources, and historic resources compared to the Proposed Plan, the demolition of which would result in a significant and unavoidable Plan-level and cumulative impact as under the Proposed Plan. Therefore, applicable State regulations and mitigation measures adopted in the UC 2040 EIR would be implemented as necessary to reduce cultural, tribal, and historic resources impacts under the No Project Alternative.

Energy, Climate Change, and Greenhouse Gas Emissions

Under the No Project Alternative, development in the Planning Area would proceed as currently projected for the site and accounted for under existing plans, including UC 2040. Demolition and construction activities, as well as new operational sources of GHG emissions, would still occur on the project site but only at currently projected levels for the site under existing plans (approximately a quarter less than under the Proposed Plan). This alternative would thus be expected to have a shorter overall duration for construction activities, which would result in reduced impacts from construction-related emissions but would not eliminate the impacts entirely. In addition, operational emissions under the No Project Alternative would be less than those of the Proposed Plan because approximately 25 percent fewer new housing units and jobs would be generated. Consequently, fewer vehicle trips would be generated under the alternative (total VMT would be lower because less overall development would occur), and operational emissions would be reduced but not eliminated. Therefore, applicable mitigation measures adopted in the UC 2040 EIR would be implemented as necessary to reduce construction-related and operational energy, climate change, and GHG emissions impacts under the No Project Alternative.

This Alternative would result in 400 fewer new housing units and 4,400 fewer jobs than the Proposed Plan, which supports housing development and a mixed use community consistent with project objectives. Less development would result in less construction and thus reduced energy consumption for construction vehicles and equipment. Similarly, a reduced level of development would result in reduced consumption of energy from operational uses including heating and transportation fuel. As with the Proposed Plan, the No Project Alternative would promote transit-oriented, mixed-use development around the Intermodal Station, which results in lower energy consumption than conventional suburban development. The No Project Alternative would also involve implementation of the 2040 General Plan's energy efficiency, renewable energy, and conservation policies that would reduce energy consumption and would be consistent with energy goals and policies contained in the current Union City Climate Action Plan. Therefore, overall, impacts would be less than significant and compared to the Proposed Plan, the No Project Alternative would have reduced energy impacts.

Geology, Soils, and Seismicity

Under the No Project Alternative, development in the Planning Area would proceed as envisioned under the City's current plans and regulations, including UC 2040. Excavation, grading, or demolition activities in the Planning Area would still occur but only at currently projected levels for the site and accounted for under existing plans. Because the No Project Alternative would still allow development (although at lower levels of intensity/density than the Proposed Plan), the No Project Alternative would have similar but slightly reduced impacts related to geology, soils, and paleontological resources compared with the Proposed Plan, which would result in less-than-significant project-level impacts and a less than cumulatively considerable contribution to significant cumulative impacts with implementation of existing State regulations as well as policies and actions within the Proposed Plan. Therefore, applicable mitigation measures adopted in the UC 2040 EIR would be implemented as necessary to reduce impacts related to geology, soils, and seismicity under the No Project Alternative.

Hazards and Hazardous Materials

Under the No Project Alternative, development in the Planning Area would proceed as currently projected for the site and accounted for under existing plans, including UC 2040. Demolition, construction, or remediation activities in the Planning Area would still occur but only at currently projected levels for the site under existing plans (approximately a quarter less than under the Proposed Plan). Because the No Project Alternative would still allow development, the No Project Alternative would have similar but slightly reduced impacts related to hazards and hazardous materials compared to the Proposed Plan, which would result in less-than-significant project-level impacts with mitigation and a less than cumulatively considerable contribution to significant cumulative impacts. Therefore, applicable mitigation measures and regulatory requirements adopted in the UC 2040 EIR would be implemented as necessary to reduce impacts related to hazards and hazardous materials under the No Project Alternative.

Hydrology, Drainage, and Water Quality

Under the No Project Alternative, development in the Planning Area would proceed as envisioned under the City's current plans and regulations, including UC 2040. Excavation, grading, or demolition activities in the Planning Area would still occur but only at currently projected levels and accounted for under existing plans (approximately a quarter less than under the Proposed Plan). Because development would still occur in the Planning Area, although to a lesser extent, the No Project Alternative would have similar but slightly reduced impacts related to hydrology and water quality compared to the Proposed Plan, which would result in less-than-significant project-level impacts and a less than cumulatively considerable contribution to significant cumulative impacts with implementation of existing State regulations as well as policies and actions within the Proposed Plan. Therefore, applicable mitigation measures and regulatory requirements adopted in the UC 2040 EIR would be implemented as necessary to reduce impacts related to hydrology, drainage, and water quality under the No Project Alternative.

Land Use, Population, and Housing

Under the No Project Alternative, development in the Planning Area would proceed as envisioned under the City's current plans and regulations, including UC 2040. The 2040 General Plan's vision for the Planning Area is to "create a vibrant 24-hour Station District that serves as a regional destination and focal point of the city for the arts, culture, and entertainment, while accommodating residents that live, work, and gather in the community." Like the Proposed Plan, this Alternative would support mixed-use, higher density development around the Intermodal Station. The 2040 General Plan's vision for the Planning Area is consistent with the regional goals for transit-oriented development identified in Plan Bay Area 2040, the integrated land use/transportation plan for the nine-county San Francisco Bay Area region.

Neither the Proposed Plan nor the No Project Alternative introduce physical barriers that would divide an established community, and both alternatives would be subject to UC 2040's Policy LU-1.6, which requires large new development projects be integrated into the fabric of the community. The Proposed Plan would additionally implement new policies that create a fine-grained street network to improve overall connectivity for residents and visitors in the Planning Area.

Development under both alternatives would be subject to the goals and policies in UC 2040 that are aimed at maintaining and preserving existing neighborhoods, and ensuring adequate affordable housing options in new development projects. These include: the City's Affordable Housing Ordinance, which provides general requirements to help address affordable housing within the City; the Residential Landlord and Tenant Relations Ordinance, which protects renters and tenants from specific harassment or undisclosed lease terminations; and Policy HE-A.3 from the City's Housing Element, which encourages home builders to use multifamily designated land for the highest allowable density of housing. Though the Proposed Plan would generate 2,500 more residents and 1,030 more housing units than the No Project Alternative (consistent with the project objective to support housing development), it also includes new goals and policies that provide housing for all income levels and household types, with emphasis on affordable housing for students, persons with disabilities, seniors, and households with low, very low, and extremely low incomes.

Because development of the same character would still occur in the Planning Area, although to a lesser extent, the No Project Alternative would have similar impact related to land use, population, and housing compared to the Proposed Plan, which would result in less-than-significant project-level impacts and a less than cumulatively considerable contribution to significant cumulative impacts with implementation of existing State regulations as well as policies and actions within the Proposed Plan.

Noise and Vibration

Buildout of the No Project Alternative would result in 400 fewer residential units and 4,400 fewer jobs than the Proposed Plan. Therefore, less construction and associated construction noise and vibration would result, meaning reduced impacts would occur under this Alternative as compared to the Proposed Plan. This Alternative would include all 2040 General Plan policies to implement construction noise control measures, as well as the 2040 General Plan EIR Mitigation Measure N-1 which requires noise attenuating features. As a result, construction noise and vibration levels would be similar under this Alternative compared with the Proposed Plan because there would be a lower level of development. Average daily traffic volume on area roadways would be less under this Alternative as compared with the Proposed Plan because this Alternative would result in reduced development that could contribute to overall trips. Therefore, operational roadway noise would be reduced at sensitive receptors located along area roadways. Overall, noise and vibration impacts under this Alternative would be less than significant with implementation of applicable 2040 General Plan policies and mitigation and slightly reduced as compared to the Proposed Plan.

Public Services and Recreation

Buildout of the No Project Alternative would accommodate fewer residents, housing units, and employees compared to the Proposed Plan. Therefore, this Alternative would generate slightly reduced demand for fire, police, school, and library services compared to the Proposed Plan. Impacts would be less than significant, as under the Proposed Plan. Implementation of the No Project Alternative would not result in the construction of new neighborhood parks, plazas and landscaped paseos throughout the Planning Area as would occur under the Proposed Plan and as identified in the project objectives; however, the 2040 General Plan has various goals and policies to ensure adequate park and recreational space is provided throughout the City and the

approximate 10 acres of new open space provided under the Station East Residential/Mixed Use Project would still be constructed under this Alternative. Therefore, impacts related to parks may be slightly reduced compared to the Proposed Plan given the lower 2040 population under this Alternative, and would be less than significant.

Transportation

The No Project Alternative would result in similar impacts on transportation compared to the Proposed Plan. This alternative would accommodate approximately 25 percent fewer residents and workers in the Planning Area. Since the alternative would have lower development densities than the Proposed Plan, it is estimated that it would result in slightly higher VMT efficiency metrics (i.e., VMT per capita, per worker, or per service population) compared to the Proposed Plan. Although the goals and policies that would reduce VMT in UC 2040, BPMP, and other planning documents would be implemented under the No Project Alternative, this alternative would not include the goals and policies in the Proposed Plan that would reduce VMT in the Planning Area. Thus, similar to the Proposed Plan, the impact on VMT would remain significant and unavoidable under the No Project Alternative.

Although the transportation network improvements and mobility related goals, policies, and objectives in the Proposed Plan would not be implemented under the No Project Alternative, the impact on consistency with circulation system plans would remain less than significant, similar to the Proposed Plan, because other planning documents, such as UC 2040 and BPMP, would continue to be applicable under this alternative. Similarly, the impacts on transportation hazards, and emergency access would remain less than significant because the Planning Area would continue to be consistent with applicable codes.

Utilities and Service Systems

As discussed in Chapter 3.14, Utilities and Service Systems, there would be sufficient water supply, wastewater treatment capacity, and solid waste disposal capacity to serve development under the Proposed Plan in 2040. As the No Project Alternative would involve less development than the Proposed Plan, there would also be sufficient water supply, wastewater treatment capacity, and solid waste disposal capacity for development pursuant to this Alternative. Proposed Plan policies related to water and energy conservation would not apply under this Alternative; however, subsequent developments would still be required to comply with applicable State and local regulations as well as related 2040 General Plan policies, including Policy PF-6.6, which requires the recycling and reuse of building materials during construction; Policy PF-3.2 which calls for support of ACWD water preservation efforts; Policy PF-3.5 which calls for the promotion of water efficient landscaping practices; and Policy PF-3.6 which requires the use of water conservation features in new development, among others. As with the Proposed Plan, the No Project Alternative would likely require in installation of local water and wastewater conveyance infrastructure to support more intense development around the Intermodal Station. The potential impacts of this construction were analyzed at a programmatic level in the UC 2040 EIR and compliance with the adopted mitigation measures in that EIR, applicable State and local regulations, as well as implementation of 2040 General Plan policies would ensure any associated impacts would be less than significant. Therefore, overall, this Alternative would result in a less than significant impact

with respect to utilities and services systems and would have a reduced impact as compared to the Proposed Plan, given the reduced amount of development involved.

INCREASED EMPLOYMENT ALTERNATIVE

Aesthetics

The Increased Employment Alternative would result in more employment-generating land uses and fewer residential uses compared to the Proposed Plan, with a greater concentration of employment uses and fewer new residential units around the Intermodal Station. While the type of development would differ under this Alternative, the overall amount and location of development would be similar and the design standards and guidelines from the Proposed Plan and Municipal Code would still apply, reducing the potential for impacts on scenic vistas and from light and glare, as with the Proposed Plan. However, as with the Proposed Plan, the development of buildings up to 160 feet in height in the Core subarea would obstruct views of the hillside area, which are considered scenic views. While Proposed Plan policies related to view preservation would be implemented under this Alternative and together with policies from UC 2040 and zoning standards would reduce these impacts to the maximum extent practicable, there are no mitigation measures available to avoid impacts of scenic vistas entirely. As such, this impact would remain significant and unavoidable as under the Proposed Plan.

This Alternative would have a less than significant impact on Scenic Highways, given its distance from such roadways, as with the Proposed Plan. This Alternative would have the same benefits with respect to creating public art, inviting gathering places, and implementation of higher quality architectural standards as the Proposed Plan because this alternative would include the same goals and policies in the Proposed Plan. Overall, impacts related to aesthetics and visual resources from the Increased Employment Alternative would be equivalent to the Proposed Plan.

Air Quality

Impacts under the Increased Employment Alternative related to air quality during construction would be similar to those of the Proposed Plan but slightly reduced because the overall amount of development proposed would be reduced (refer to Table 4.1-1, above). This would result in a similar but slightly shorter duration for construction activities. Mitigation Measures AQ-1 through AQ-6, identified in Section 3.3, Air Quality, would apply to this alternative. As with the Proposed Plan, it is likely that the Increased Employment Alternative would result in a net increase in criteria pollutants (such as nitrogen oxides, reactive organic gas, and particulate matter in exhaust emissions) and expose sensitive receptors within 1,000 feet of the Planning Area to significant health risks during construction activities. With implementation of Mitigation Measures AQ-1 through AQ-6, the Increased Employment Alternative would very likely still result in significant and unavoidable project-level and cumulative construction air quality impacts, similar to the Proposed Plan, although slightly less.

During operations, emissions under the Increased Employment Alternative from area and building energy sources would be similar to those of the Proposed Plan but slightly reduced because the number of housing units constructed would be reduced by more than one-third. Because the

alternative would prioritize office space instead of housing units, the Increased Employment Alternative would generate fewer vehicle trips compared with the Proposed Plan (employee VMT is less than resident VMT). This would reduce operational emissions impacts but would not eliminate them. Mitigation Measures AQ-7, AQ-8, AQ-10, and AQ-11 would apply to this alternative. As appropriate, the Increased Employment Alternative would also be subject to Mitigation Measure AQ-9. Similar to the Proposed Plan, the Increased Employment Alternative would very likely result in a net increase in criteria pollutants (such as nitrogen oxides, reactive organic gas, and particulate matter in exhaust emissions) and expose sensitive receptors within 1,000 feet of the Planning Area to significant health risks during operational activities. With implementation of Mitigation Measures AQ-7 through AQ-11, impacts associated with operational activities under the Increased Employment Alternative would result in significant and unavoidable project-level and cumulative operational air quality impacts, similar to the Proposed Plan, although slightly reduced.

Biological Resources

The Increased Employment Alternative would result in similar impacts on biological resources compared with the Proposed Plan because a similar level of ground disturbance (including the removal of trees and other vegetation) would still occur, resulting in similar impacts on special-status species, burrowing owls, and roosting bats. Mitigation Measure BIO-1, identified in Section 3.4, Biological Resources, would apply to the Increased Employment Alternative. Like the Proposed Plan, the Increased Employment Alternative would be required to abide by all conditions specified in the City Municipal Code (e.g., conditions that require permits to remove protected trees and compensate for their removal by planting replacement trees of certain sizes and species). With implementation of Mitigation Measure BIO-1, project-level and cumulative biological resources impacts under the Increased Employment Alternative would be less than significant with mitigation and similar to those of the Proposed Plan.

Cultural, Tribal, and Historic Resources

Similar impacts on cultural resources, tribal cultural resources, and historic resources would result from the Increased Employment Alternative compared with the Proposed Plan because excavation, grading, and demolition would still be required for construction of the high-tech R&D and office uses, as well as residential uses. Mitigation Measures MM-CUL-1 through 7 would still be implemented; however, as with the Proposed Plan, while implementation of MM-CUL-2 through 4 would partially compensate for the impact associated with demolition of the historic Peterson Farmhouse through documentation and interpretation, these measures would not be enough to avoid or reduce the impact, and the demolition of the Peterson Farmhouse would remain significant and unavoidable with mitigation incorporated as under the Proposed Plan. Compliance with existing regulations and implementation of MM-CUL-5 through 7 would ensure that impacts related to archaeological resources, human remains, and tribal cultural resources would be less than significant with mitigation, as under the Proposed Plan.

Energy, Climate Change, and Greenhouse Gas Emissions

Under the Increased Employment Alternative, the amount of demolition and construction activity would be similar to that of the Proposed Plan but slightly reduced because the overall amount of development would be reduced, resulting in slightly less construction-related and operations GHG emissions. Mitigation Measure GHG-1 identified in Section 3.6, Greenhouse Gas Emissions, would apply to the Increased Employment Alternative. Direct emissions generated by landscaping and other activities, as well as indirect emissions associated with electricity consumption, waste and wastewater generation, and water use, would likely be slightly less than those of the Proposed Plan because office and R&D uses would be prioritized instead of residential uses within the Core subarea would be reduced from 100 to 165 du/acre to 60 to 100 du/acre, thereby generating fewer residential units under the alternative. As with the Proposed Plan, the Increased Employment Alternative would implement sustainability features and comply with City requirements regarding recycling and waste reduction programs, composting, and water-efficient landscaping. The Increased Employment Alternative would generate fewer vehicle trips than the Proposed Plan (VMT is lower with office development compared with residential development). This would result in reduced operational GHG emissions compared with those of the Proposed Plan. However, like the Proposed Plan, under the Increased Employment Alternative, VMT per capita would not meet the required threshold, and thus, would conflict with the goals of SB 743 and the State's long-term climate change planning goals. Further, future projects under both the Proposed Plan and Increased Employment Alternative would use natural gas for building heating and cooking, appliances, and fireplaces, which would conflict with the CARB 2017 Scoping Plan. Therefore, project-level and cumulative GHG emissions impacts under the Increased Employment Alternative would be significant and unavoidable, but the degree of impact would be slightly reduced owing to lower projected operational GHG emissions.

The Increased Employment Alternative would increase non-residential development and reduce residential development compared to the Proposed Plan, which supports more housing development consistent with the project objectives. The concentrated intensity of activity and commercial uses typically generate more vehicle trips and thus more GHG emissions compared to residential development. Given that commercial and industrial uses accounted for a higher share of the City's GHG inventory, and that the Increased Employment Alternative would increase non-residential development and reduce residential development compared to the Proposed Plan, it is likely that energy usage would be slightly higher under the Increased Employment Alternative. This Alternative includes a similar degree of high-density and mixed-use development compared to the Proposed Plan, and is designed to reduce VMT by encouraging more people to use public transit for their commute and provide additional jobs for people living within walking distance in the Planning Area. Both alternatives would involve implementation of the 2040 General Plan's energy efficiency, renewable energy, and conservation policies that would reduce energy consumption and would be consistent with energy goals and policies contained in the current Union City Climate Action Plan. Additionally, both alternatives would implement new sustainability policies in the Proposed Plan, including requiring new development to incorporate green building measures such as energy-efficient building design. Therefore, overall impacts would be less than significant. Compared to the Proposed Plan, the Increased Employment Alternative, would have a similar degree of energy impacts.

Geology, Soils, and Seismicity

Similar impacts on geology, soils, and seismicity would result from the Increased Employment Alternative compared with the Proposed Plan because excavation, grading, and demolition would still be required for construction of the high-tech R&D and office uses, as well as residential uses. Therefore, the potential impacts on geology, soils, and seismicity would be similar to those under the Proposed Plan. Mitigation Measures GEO-1 and GEO-2, identified in Section 3.8, Geology, Soils, and Seismicity, would apply to the alternative. Implementation of Mitigation Measures GEO-1 and GEO-2 requires training to construction staff regarding paleontological resources and provides instructions and guidance to follow in the event of the discovery of an unidentified paleontological resource, respectively. With implementation of Mitigation Measures GEO-1 and GEO-2, existing State regulations, as well as policies and actions within the Proposed Plan, project-level and cumulative impacts related to geology, soils, and seismicity under the Increased Employment Alternative would be less than significant with mitigation and similar to those of the Proposed Plan.

Hazards and Hazardous Materials

Impacts related to hazards and hazardous materials under the Increased Employment Alternative would be similar to those of the Proposed Plan because construction would have similar risks, associated with the accidental release of hazardous materials, and would be subject to the same site remediation requirements as the Proposed Plan. Mitigation Measure HAZ-1, identified in Section 3.8, Hazards and Hazardous Materials, would apply to the alternative. Implementation of Mitigation Measure HAZ-1 would reduce potential impacts associated with demolition activities. This impact would be less than significant with mitigation. With implementation of Mitigation Measure HAZ-1, project-level impacts related to hazards and hazardous materials under the Increased Employment Alternative would be less than significant with mitigation, similar to impacts under the Proposed Plan. Cumulative impacts related to hazards and hazardous materials under the Increased Employment Alternative would be less than significant, similar to impacts under the Proposed Plan.

Hydrology, Drainage, and Water Quality

Similar impacts on hydrology, drainage, and water quality would result from the Increased Employment Alternative compared with the Proposed Plan because excavation, grading, and demolition would still be required for construction of the high-tech R&D and office uses, as well as residential uses. Therefore, the potential impacts under the Increased Employment Alternative on hydrology, drainage, and water quality would be similar to those of the Proposed Plan. With implementation of existing State regulations as well as policies and actions within the Proposed Plan, project-level and cumulative impacts related to hydrology, drainage, and water quality under the Increased Employment Alternative would be less than significant and similar to impacts under the Proposed Plan.

Land Use, Population, and Housing

The Increased Employment Alternative would focus on generating more employment uses in the Planning Area, in lieu of housing and other mixed-use development, by creating a new Transit-Oriented Employment designation that permits FARs of up to 4.5 on the Restoration Site within The Core subarea, and would not allow housing development. Compared to the Proposed Plan (which is consistent with project objectives to support housing development), development under this Increased Employment Alternative would result in approximately 3,400 fewer new residents, 1,430 fewer new housing units, and 1,400 more new jobs in the Planning Area by 2040. Like the Proposed Plan, this Alternative would support mixed-use, higher density development around major transportation nodes, including the Intermodal Station, and is therefore consistent with the regional goals identified in Plan Bay Area 2050, which promotes compact mixed-use infill development close to public transit through goals EC-4, which calls for allowing greater commercial densities in PDAs and transit-rich areas, and goal EC-5, which promotes the location of jobs near transit and particularly near regional rail stations.

Neither the Proposed Plan nor the Increased Employment Alternative introduce physical barriers that would divide an established community, and both alternatives would be subject to UC 2040's Policy LU-1.6, which requires large new development projects be integrated into the fabric of the community. Because the Increased Employment Alternative would retain all project objectives, both alternatives would additionally implement new policies that create a fine-grained street network related to a finer-grained network of streets, improved bicycle facilities, and a network of paseos, plazas, and open spaces within all subareas.

Development under both alternatives would be subject to the goals and policies in UC 2040 that are aimed at maintaining and preserving existing neighborhoods, and ensuring adequate affordable housing options in new development projects. These include: the City's Affordable Housing Ordinance, which provides general requirements to help address affordable housing within the City; the Residential Landlord and Tenant Relations Ordinance, which protects renters and tenants from specific harassment or undisclosed lease terminations; and Policy HE-A.3 from the City's Housing Element, which encourages home builders to use multifamily designated land for the highest allowable density of housing. Additionally, both alternatives would establish new goals and policies in the Proposed Plan that provide housing for all income levels and household types, with emphasis on affordable housing for students, persons with disabilities, seniors, and households with low, very low, and extremely low incomes.

Given that development of the same character would still occur in the Planning Area, although to a lesser extent, the Increased Employment Alternative would have an equivalent impact related to land use, population, and housing compared to the Proposed Plan, which would result in less-than-significant project-level impacts and a less than cumulatively considerable contribution to significant cumulative impacts with implementation of existing State regulations as well as policies and actions within the Proposed Plan.

Noise and Vibration

The Increased Employment Alternative would result in more employment-generating land uses than residential uses compared to the Proposed Plan; however, the development footprint and the

overall amount of development and therefore of construction activity would be similar to the Proposed Plan. This Alternative would involve implementation of all Proposed Plan and 2040 General Plan policies related to construction noise control as well as measures in the Municipal Code and 2040 General Plan EIR Mitigation Measure N-1, which requires noise attenuation during construction. Therefore, construction noise and vibration impacts under this Alternative would be less than significant and equivalent to the Proposed Plan. Average daily traffic volume on area roadways would be slightly less under this Alternative as compared with the Proposed Plan because this Alternative would result in a reduced 2040 service population. Therefore, operational roadway noise would be slightly reduced at sensitive receptors located along area roadways. Policies related to noise reduction from the Proposed Plan would still be implemented. Overall, noise and vibration impacts under this Alternative would be less than significant with implementation of applicable policies, compliance with Municipal Code provisions, and adherence to 2040 General Plan EIR Mitigation Measure N-1 would ensure that impacts under this Alternative would be less than significant and slightly reduced as compared to the Proposed Plan.

Public Services and Recreation

Buildout of the Increased Employment Alternative would result in 3,400 fewer residents in the Planning Area in 2040 but 1,400 more employees compared to the Proposed Plan. The 2040 service population under this Alternative would be 23,300, which is 2,000 less than under the Proposed Plan. Therefore, this Alternative would be expected to generate fewer calls for service and a slightly reduced demand for police, fire and emergency medical services. With a lower residential population, demand for school and library services would also be reduced as compared to the Proposed Plan. As such, the less than significant impact of the Proposed Plan with respect to fire, police, school and library services would be further reduced under this Alternative. Buildout of this Alternative would also involve the construction of parks, plazas, and paseos as under the Proposed Plan; the environmental impacts related to traffic, noise, and air quality and GHG emissions during construction and operation of the park facilities have been considered throughout this EIR. Detailed design of the new park facilities has not yet been completed, so site specific impacts cannot be evaluated at this time, however all new parks development would adhere to environmental quality policies in the Proposed Plan that establish buffers between development and waterways, require that projects avoid or minimize the introduction of invasive plant species, and work with certified biologists and arborists when projects have the potential to impact significant resources. Therefore, impacts would be less than significant and would be reduced compared to the Proposed Plan.

Transportation

The Increased Employment Alternative would result in similar impacts on transportation compared to the Proposed Plan. Table 4-2 compares the VMT metrics for the Increased Employment Alternative to the Proposed Plan and the thresholds of significance (15 percent below Baseline Citywide Average). The Household VMT per Capita in the Planning Area would be slightly higher than under the Proposed Plan and the Home-Work VMT per Worker and the Total VMT per Service Population would be slightly higher than under the Proposed Plan. Similar to the Proposed Plan, the Household VMT per Capita and the Home-Work VMT per Worker would be below the threshold of significance and the Total VMT per Service Population would not be below the threshold of significance. The Proposed Plan includes goals and policies to reduce VMT, which

continue to be applicable to the Increased Employment Alternative. However, similar to the Proposed Plan, the impact on VMT would remain significant and unavoidable under the Increased Employment Alternative.

Table 4-2: Planning Area VMT Metrics

	<i>Household VMT per Capita</i>	<i>Home- Work VMT per Worker</i>	<i>Total VMT per Service Population</i>
Planning Area 2020 Baseline	23.3	13.2	26.1
Planning Area 2040 Proposed Plan Buildout ^{1,2}	19.1	11.1	26.3
Planning Area 2040 Increased Employment Alternative Buildout ^{3,4}	19.2	11.0	26.1
Union City 2020 Baseline Average	23.7	15.4	27.1
15% below Baseline Citywide Average (Threshold of Significance)	20.1	13.1	23.0
Significant Impact?	No	No	Yes

Notes:

1. Based on a residential population of 14,400.
2. Based on total employment of 18,200 workers.
3. Based on a residential population of 11,000.
4. Based on total employment of 19,700 workers.
5. Numbers in **bold** indicate exceedance of thresholds of significance.

Source: Fehr & Peers, 2021.

Since the transportation network and the mobility related goals and policies under the Increased Employment Alternative would remain the same as under the Proposed Plan, the impacts on consistency with circulation system plans, transportation hazards, and emergency access would remain less than significant. The No Project Alternative would likely result in fewer new bike and pedestrian improvements and connections, and therefore may not support the project objective of creating a well-connected district as strongly as the Proposed Plan does.

Utilities and Service Systems

As discussed in Chapter 3.14, Utilities and Service Systems, there would be sufficient water supply, wastewater treatment capacity, and solid waste disposal capacity to serve development under the Proposed Plan in 2040. The Increased Employment Alternative would result in approximately 441,000 square feet of additional office and R&D space as compared to the Proposed Plan and 400 fewer new homes. Residential uses typically consume more water and generate more wastewater than office uses,¹ and as such this Alternative could reduce the Proposed Plan's less than significant impact further. On the other hand, office buildings typically generate more solid waste than homes,² although the additional amount of solid waste generated from approximately 441,000 square feet of additional office and R&D space would be well within the remaining capacity of landfills serving the project. Therefore, associated impacts under the Increased Employment Alternative would also be less than significant, although slightly increased in comparison to the Proposed Plan. Proposed Plan policies related to water and energy conservation and solid waste reduction would still be implemented, as would ACWD's Water Efficiency Measures for New Developments, thereby further reducing the already less than significant impacts. As with the Proposed Plan, this Alternative would likely require installation of local water and wastewater conveyance infrastructure to support more intense development around the Intermodal Station. The location and extent of related construction would be similar to the Proposed Plan and mitigation measures that would reduce associated impacts, including MM-BIO-1, MM-CUL-4 through 6, and MM-GEO-1, would still apply and impacts would be less than significant as under the Proposed Plan. Overall, impacts from the Increased Employment Alternative would be less than significant with respect to utilities and services systems and equivalent impact to the Proposed Plan.

REDUCED DEVELOPMENT ALTERNATIVE

Aesthetics

The Reduced Development Alternative would result in substantially less development than the Proposed Plan. As a result, buildout under this Alternative is likely to result in shorter buildings that are more dispersed throughout the Planning Area, which would mean reduced impacts on scenic resources, including views of the hills. This Alternative would restore the land use designations in place under the 2002 Union City General Plan. Under the 2002 General Plan, the Station Mixed Use Commercial designation is applied to the immediate vicinity of the Intermodal Station to support a higher density of uses, including FARs ranging from 1.0 to 4.0, with increasing density as parcels near the Intermodal Station. Therefore, this Alternative does not preclude taller buildings, and as such obstruction of scenic views of hillside areas would still represent a significant impact. As there are no mitigation measures available to avoid impacts of scenic vistas entirely, this impact would remain significant and unavoidable as under the Proposed Plan. This Alternative retains all policies under the Proposed Plan, including the proposed design standards, goals, policies, and implementation measures, described in Chapter 3.1 of this EIR, that promote good design within new development, emphasize the visual quality of the public realm, reduce the impacts of light and glare, and design streetscapes that frame and protect views of the hills, therefore improving the visual character of the Planning Area. Development under both alternatives would be consistent

¹ <https://www.epa.gov/watersense/tools-and-resources>

² <https://www.roadrunnerwm.com/blog/office-worker-waste-generation>

with applicable regulations governing scenic quality in the urbanized area, including the Municipal Code and General Plan. There are no state scenic highways within or visible from the Planning Area, thus neither alternative would have a significant impact of the destruction of resources within a state scenic highway. Under the Reduced Development Alternative, impacts on aesthetic resources would be reduced as compared to those of the Proposed Plan, but impacts related to scenic vistas would remain significant and unavoidable as under the Proposed Plan.

Air Quality

The air quality impacts of the Reduced Development Alternative would be reduced relative to those of the Proposed Plan because the intensity and extent of construction and development would be less. Therefore, the overall duration of construction would be shorter. This would reduce impacts from construction-related emissions but would not eliminate the impacts entirely. Mitigation Measures AQ-1 through AQ-6, identified in Section 3.3, Air Quality, would apply to this alternative. As with the Proposed Project, impacts associated with construction-related criteria air pollutant emissions (nitrogen oxides, reactive organic gas, and particulate matter in exhaust emissions) under the Reduced Development Alternative would be significant and unavoidable, although slightly reduced compared with the Proposed Plan. Similarly, with implementation of Mitigation Measures AQ-1 through AQ-6, the alternative's contribution to a cumulative criteria pollutant emissions impact would be significant and unavoidable, although slightly reduced compared with the Proposed Plan.

During operations, emissions under the Reduced Development Alternative from area and building energy sources would be less than those of the Proposed Plan because the alternative would result in less than half the number of new housing units and jobs. Consequently, the alternative would generate fewer vehicle trips; therefore, operational emissions would be reduced. Because some emissions would still result, Mitigation Measures AQ-7 and AQ-8 would apply to this alternative. As appropriate, the Reduced Development Alternative would also be subject to Mitigation Measure AQ-9. Similar to the Proposed Plan, impacts associated with operational criteria air pollutant emissions under the Reduced Development Alternative would be significant and unavoidable, although slightly reduced compared to the Proposed Plan. In addition, with implementation of Mitigation Measures AQ-7 through AQ-9, the alternative's contribution to a cumulative criteria air pollutant emissions impact would be significant and unavoidable, although slightly reduced compared with the Proposed Plan.

Similar to the Proposed Plan, construction and operation of the Reduced Development Alternative would generate toxic air contaminants (TACs), including diesel particulate matter. Under the reduced construction and development program associated with the Reduced Development Alternative, with implementation of Mitigation Measures AQ-1, AQ-2, AQ-3, AQ-10, and AQ-11, the impact of the health risk from TACs during construction and operations would be slightly reduced compared with the Proposed Plan but would still result in significant and unavoidable air quality impacts.

Biological Resources

The Reduced Development Alternative would result in similar impacts on biological resources compared with those of the Proposed Plan. Although the level of development would be lower than under the Proposed Plan, a similar amount of ground disturbance (including the removal of trees and other vegetation) would occur, resulting in similar impacts on special-status species, burrowing owls, and roosting bats. Mitigation Measure BIO-1, identified in Section 3.4, Biological Resources, would apply to the Reduced Development Alternative. Like the Proposed Plan, the Reduced Development Alternative would be required to abide by all conditions specified in the Municipal Code (e.g., conditions that require permits to remove protected trees and compensate for their removal by planting replacement trees of certain sizes and species). With implementation of Mitigation Measure BIO-1, project-level and cumulative impacts related to biological resources under the Reduced Development Alternative would be less than significant with mitigation and similar to impacts under the Proposed Plan.

Cultural, Tribal, and Historic Resources

The Reduced Development Alternative would result in reduced levels of construction activity compared to the Proposed Plan; however, with ground disturbance still occurring under this alternative, there would still be potential to unearth previously unknown archaeological deposits, human remains, or precontact or historic-period cultural materials. Mitigation Measures MM-CUL-1 through 7 would still be implemented. Compliance with existing regulations and implementation of MM-CUL-5 through 7 would ensure that impacts related to archaeological resources, human remains, and tribal cultural resources would be less than significant with mitigation, as under the Proposed Plan. While implementation of MM-CUL-2 through 4 would partially compensate for the impact associated with demolition of the historic Peterson Farmhouse through documentation and interpretation, these measures would not be enough to avoid or reduce the impact, and the demolition of the Peterson Farmhouse would remain significant and unavoidable with mitigation incorporated as under the Proposed Plan. Therefore, impacts related to cultural resources, tribal cultural resources, and historic resources under the Reduced Development Alternative would be similar to those of the Proposed Plan.

Energy, Climate Change, and Greenhouse Gas Emissions

Under the Reduced Development Alternative, substantially less development would occur compared to the Proposed Plan. This would result in fewer construction-related and operational activities that would generate GHGs and, therefore, would reduce GHG emissions. This would reduce the associated impacts but would not eliminate the impacts. Implementation of Mitigation Measure GHG-1, identified in Section 3.6, Greenhouse Gases, would be required for this alternative. In addition, as with the Proposed Plan, the Reduced Development Alternative would also implement sustainability features and comply with City requirements regarding recycling and waste reduction programs, composting, and water-efficient landscaping. Furthermore, the Reduced Development Alternative would generate fewer vehicle trips than the Proposed Plan (VMT would be lower because less overall development would occur). This would result in

reduced operational GHG emissions compared with those of the Proposed Plan. However, like the Proposed Plan, under the Reduced Development Alternative, VMT per capita would not meet the required threshold, and thus, would conflict with the goals of SB 743 and the State's long-term climate change planning goals. Further, future projects under both the Proposed Plan and Reduced Development Alternative would use natural gas for building heating and cooking, appliances, and fireplaces, which would conflict with the CARB 2017 Scoping Plan. Therefore, with implementation of Mitigation Measure GHG-1, project-level and cumulative GHG impacts under the Reduced Development Alternative would remain significant and unavoidable, although the degree of impact would be slightly reduced relative to impacts under the Proposed Plan.

The Reduced Development Alternative would result in 2,130 fewer new housing units and less non-residential square footage than the Proposed Plan. This would not as strongly support project objectives of promoting a mixed-use community and supporting housing development as strongly as the Proposed Plan. However, less development would result in less construction and thus reduced energy consumption for construction vehicles and equipment. Similarly, a reduced level of development would result in reduced consumption of energy from operational uses including heating and transportation fuel. As with the Proposed Plan, the Reduced Development Alternative would promote transit-oriented, mixed-use development around the Intermodal Station, which results in lower energy consumption than conventional suburban development; however, there would be less development overall and therefore less benefit when considered in the citywide and regional context. The Reduced Development Alternative would also involve implementation of the 2040 General Plan's energy efficiency, renewable energy, and conservation policies that would reduce energy consumption and would be consistent with energy goals and policies contained in the current Union City Climate Action Plan. Therefore, overall, impacts would be less than significant. Compared to the Proposed Plan, the Reduced Development Alternative would have a lesser degree of energy impacts.

Geology, Soils, and Seismicity

Impacts on geology, soils, and seismicity under the Reduced Development Alternative would be similar to those of the Proposed Plan because ground disturbance would still occur under the alternative. Similar to the Proposed Plan, there would still be potential for excavation to disturb geologic units with high paleontological sensitivity. Mitigation Measures GEO-1 and GEO-2, identified in Section 3.8, Geology, Soils, and Seismicity, would apply to the alternative. Implementation of Mitigation Measures GEO-1 and GEO-2 requires training to construction staff regarding paleontological resources and provides instructions and guidance to follow in the event of the discovery of an unidentified paleontological resource, respectively. Therefore, with implementation of Mitigation Measures GEO-1 and GEO-2, existing State regulations, as well as policies and actions within the Proposed Plan, project-level and cumulative impacts related to geology, soils, and seismicity under the Reduced Development Alternative would be less than significant with mitigation, similar to those of the Proposed Plan.

Hazards and Hazardous Materials

The Reduced Development Alternative would result in reduced levels of construction activity compared to the Proposed Plan, however, the level of ground disturbance would likely be the same. With ground disturbance still occurring under this alternative, there would still be potential for ground-disturbing activities to expose construction personnel, the public, or the environment to an accidental release of hazardous materials. Therefore, implementation of Mitigation Measure HAZ-1, identified in Section 3.8, Hazards and Hazardous Materials, would apply to the alternative. With implementation of Mitigation Measure HAZ-1, project-level and cumulative impacts related to hazards and hazardous materials under the Reduced Development Alternative would be less than significant with mitigation similar to those of the Proposed Plan.

Hydrology, Drainage, and Water Quality

Impacts on hydrology, drainage, and water quality under the Reduced Development Alternative would be similar to the impacts of the Proposed Plan because ground disturbance and other construction activities would still occur under this alternative. There would still be potential for excavation, grading, and demolition to affect hydrology and water quality and disrupt drainage patterns. Therefore, with implementation of existing State regulations as well as policies and actions within the Proposed Plan, project-level and cumulative impacts related to hydrology, drainage, and water quality under the Reduced Development Alternative would be less than significant and similar to those of the Proposed Plan.

Land Use, Population, and Housing

The Reduced Development Alternative would result in less development, and therefore generate 5,000 fewer new residents, 2,130 fewer housing units, and 9,900 fewer jobs by 2040 than the Proposed Plan. This would be less consistent with the project objectives –including objectives to promote a mixed-use community and to support housing development – than the Proposed Plan. To reflect this scaled back growth, this alternative would restore the land use designations and density/intensity standards that were in force under the 2002 Union City General Plan, with revisions that would allow for additional residential density in The Core area of the Station District, adjacent to the Union City Intermodal Station; under this alternative, the Retail Commercial designation would apply to The Marketplace subarea, with new policies that would limit the amount of net new retail on the site.

The 2002 General Plan’s vision for the Planning Area is to “create an environment surrounding the intermodal facility that is mixed use and transit-oriented and which has good connectivity with the rest of the city while integrating well with the surrounding neighborhoods.” In implementing this vision, the Reduced Development would, like the Proposed Plan, support mixed-use, higher density development around the Intermodal Station. Growth that would occur under this Alternative has been planned for. By locating a higher density/intensity mix of residential and employment uses near transit, it would be consistent with the regional goals established in Plan Bay Area 2050. However, because this Alternative limits development near the Intermodal Station, it would not contribute towards Plan Bay Area’s transit-oriented development goals as well as the project

objectives in the Proposed Plan. Additionally, this Alternative would require an amendment to the adopted General Plan in order to resolve conflict with the goals and land use designations for the Planning Area stated in UC 2040.

Neither the Proposed Plan nor the Reduced Development Alternative introduce physical barriers that would divide an established community, and both alternatives would be subject to UC 2040's Policy LU-1.6, which requires large new development projects be integrated into the fabric of the community. Both alternatives would additionally implement new policies that create a fine-grained street network to improve overall connectivity for residents and visitors in the Planning Area.

Development under both alternatives would be subject to the goals and policies in UC 2040 that are aimed at maintaining and preserving existing neighborhoods, and ensuring adequate affordable housing options in new development projects; the City's Affordable Housing Ordinance, which provides general requirements to help address affordable housing within the City; the Residential Landlord and Tenant Relations Ordinance, which protects renters and tenants from specific harassment or undisclosed lease terminations; and Policy HE-A.3 from the City's Housing Element, which encourages home builders to use multifamily designated land for the highest allowable density of housing. Additionally, both alternatives would establish new goals and policies in the Proposed Plan that provide housing for all income levels and household types, with emphasis on affordable housing for students, persons with disabilities, seniors, and households with low, very low, and extremely low incomes.

Given that development of the same character would still occur in the Planning Area, although to a lesser extent than is envisioned in Plan Bay Area, the Reduced Development Alternative would have an equivalent or slightly greater impact related to land use, population, and housing compared to the Proposed Plan because the Reduced Development Alternative would not meet Plan Bay Area 2040 or Plan Bay Area 2050's goals for substantial housing development in PDAs and transit-rich areas as successfully as the Proposed Plan does. This would result in less-than-significant project-level impacts and a less than cumulatively considerable contribution to significant cumulative impacts with implementation of existing State regulations as well as policies and actions within the Proposed Plan.

Noise and Vibration

Buildout of the Reduced Development Alternative would result in 2,130 fewer housing units and less non-residential square footage than the Proposed Plan. As such, the amount of construction activity and associated construction noise and vibration impacts would be lower under this Alternative as compared to the Proposed Plan. This Alternative would involve implementation of all Proposed Plan and 2040 General Plan policies related to construction noise control as well as measures from the Municipal Code and 2040 General Plan EIR Mitigation Measure N-1 which requires noise attenuating features. As a result, construction noise and vibration levels would be less than significant under this Alternative and reduced as compared with the Proposed Plan. Average daily traffic volume on area roadways would be less under this Alternative as compared with the Proposed Plan because this Alternative would result in a substantially reduced 2040 service population. Therefore, operational roadway noise would be reduced at sensitive receptors located along area roadways, although with fewer jobs concentrated around the Intermodal Station, it is likely that more employees would commute by car. Policies related to noise reduction from the

Proposed Plan would still be implemented. Overall, noise and vibration impacts under this Alternative would be less than significant with implementation of applicable policies, compliance with Municipal Code provisions, and adherence to 2040 General Plan EIR Mitigation Measure N-1 would ensure that impacts under this Alternative would be less than significant and slightly reduced as compared to the Proposed Plan.

Public Services and Recreation

Buildout of the Reduced Development Alternative would accommodate fewer residents, housing units, and employees compared to the Proposed Plan. Therefore, this Alternative would generate a reduced demand for fire, police, school, and library services compared to the Proposed Plan. Impacts would be less than significant, as under the Proposed Plan. Buildout of this Alternative would also involve the construction of parks, plazas, and paseos as under the Proposed Plan; the environmental impacts related to traffic, noise, and air quality and GHG emissions during construction and operation of the park facilities have been considered throughout this EIR. Detailed design of the new park facilities has not yet been completed, so site specific impacts cannot be evaluated at this time, however all new parks development would adhere to environmental quality policies in the Proposed Plan that establish buffers between development and waterways, require that projects avoid or minimize the introduction of invasive plant species, and work with certified biologists and arborists when projects have the potential to impact significant resources. Therefore, impacts would be less than significant and would be reduced compared to the Proposed Plan.

Transportation

The Reduced Development Alternative would result in similar impacts on transportation compared to the Proposed Plan. This alternative would accommodate approximately 55 percent fewer residents and 62 percent fewer workers in the Planning Area. Since the alternative would have lower development densities than the Proposed Plan, it is estimated that it would result in slightly higher VMT efficiency metrics (i.e., VMT per capita, per worker, or per service population) compared to the Proposed Plan. The Proposed Plan includes goals and policies to reduce VMT, which continue to be applicable under the Reduced Development Alternative. However, similar to the Proposed Plan, the impact on VMT would remain significant and unavoidable under the Reduced Development Alternative.

Since the transportation network and the mobility related goals and policies under the Reduced Development Alternative would remain about the same as under the Proposed Plan, the impacts on consistency with circulation system plans, transportation hazards, and emergency access would remain less than significant. The Reduced Development alternative could result in fewer new bike and pedestrian improvements and connections, and therefore may not support the project objective of creating a well-connected district as strongly as the Proposed Plan does.

Utilities and Service Systems

As discussed in Chapter 3.14, Utilities and Service Systems, there would be sufficient water supply, wastewater treatment capacity, and solid waste disposal capacity to serve development under the Proposed Plan in 2040. As the Reduced Development Alternative would involve substantially less

development than the Proposed Plan, there would also be sufficient water supply, wastewater treatment capacity, and solid waste disposal capacity for development pursuant to this Alternative. Proposed Plan policies related to water and energy conservation would still apply under this Alternative and subsequent developments would still be required to comply with applicable State and local regulations as well as related 2040 General Plan policies. As with the Proposed Plan, the Reduced Development Alternative would likely require installation of local water and wastewater conveyance infrastructure to support more intense development around the Intermodal Station. The location of related construction would be similar to the Proposed Plan, but the extent would be reduced, commensurate with the reduce amount of development involved. Mitigation measures that would reduce associated construction impacts, including MM-BIO-1, MM-CUL-5 through 7, and MM-GEO-1, would still apply and compliance with applicable State and local regulations as well as related UC 2040 policies would ensure that impacts would be less than significant, as under the Proposed Plan. Overall, impacts from the Reduced Development Alternative would be less than significant with respect to utilities and services systems, resulting in a similar but slightly reduced impact compared to the Proposed Plan.

4.4 Environmentally Superior Alternative

The CEQA Guidelines Section 15126.6 requires the identification of an environmentally superior alternative among the alternatives analyzed in an EIR. If the No Project Alternative is identified as the environmentally superior alternative, the guidelines require another environmentally superior alternative to be identified.

Table 4.4-1 summarizes the alternatives' overall environmental impacts for each topic presented in Section 4.3. For the Proposed Plan, seven impacts were expected to be significant and unavoidable, seven impacts were expected to be less than significant with mitigation, and 43 impacts were expected to be less than significant. For the No Project Alternative, seven impacts were expected to be significant and unavoidable, six impacts were expected to be less than significant with mitigation, and 44 impacts were expected to be less than significant. For the Increased Employment Alternative, seven impacts were expected to be significant and unavoidable, five impacts were expected to be less than significant with mitigation, and 45 impacts were expected to be less than significant. For the Reduced Development Alternative, six impacts were expected to be significant and unavoidable, five impacts were expected to be less than significant with mitigation, and 46 impacts were expected to be less than significant. Therefore, the Reduced Development Alternative is the environmentally superior alternative. However, this alternative would not support key project objectives related to increased housing supply, varied housing opportunities, community vibrancy, and long-term fiscal stability to the same degree as the Proposed Plan.

Table 4.4-1: Summary of Impacts for Alternatives

<i>Impact</i>	<i>Level of Significance</i>			
	<i>Proposed Plan</i>	<i>No Project Alternative</i>	<i>Increased Employment Alternative</i>	<i>Reduced Development Alternative</i>
3.1 Aesthetics				
3.1-1 Scenic Vistas	SU	SU, =	SU, =	SU, -
3.1-2 Scenic Highways	LTS	LTS, =	LTS, =	LTS, =
3.1-3 Visual Character	LTS	LTS, =	LTS, =	LTS, -
3.1-4 Light and Glare	LTS	LTS, =	LTS, =	LTS, -
3.2 Air Quality				
3.2-1 Air Quality Plan	LTS	LTS, -	LTS, -	LTS, -
3.2-2 Air Quality Standard	SU	SU, -	SU, -	SU, -
3.2-3 Sensitive Receptors	SU	SU, -	SU, -	SU, -
3.2-4 Odors	LTS	LTS, -	LTS, -	LTS, -
3.3 Biological Resources				
3.3-1 Special-Status Species	LTSM	LTSM, -	LTSM, -	LTSM, -
3.3-2 Sensitive Habitat	LTS	LTS, -	LTS, -	LTS, -
3.3-3 Wetlands	LTS	LTS, -	LTS, -	LTS, -
3.3-4 Wildlife Corridors	LTS	LTS, -	LTS, -	LTS, -
3.3-5 Policies and Ordinances	LTS	LTS, -	LTS, -	LTS, -
3.3-6 HCPs	LTS	LTS, -	LTS, -	LTS, -
3.4 Cultural, Historic, and Tribal Resources				
3.4-1 Historic Resources	SU	SU =	SU =	SU =
3.4-2 Archaeological Resources	LTSM	LTSM, =	LTSM, =	LTSM, -
3.4-3 Human Remains	LTSM	LTSM, =	LTSM, =	LTSM, -
3.4-4 Tribal Cultural Resources	LTSM	LTSM, =	LTSM, =	LTSM, -
3.5 Energy, Climate Change, and GHG Emissions				
3.5-1 Impact on Environment	SU	SU, -	SU, -	SU, -
Plan, Policy, or Regulation	LTSM, SU	LTSM, SU, -	SU, -	SU, -
3.5-2 Wasteful Energy Consumption	LTS	LTS, -	LTS, -	LTS, -
3.5-3 Energy Efficiency Standards	LTS	LTS, -	LTS, -	LTS, -
3.6 Geology, Soils, and Seismicity				
3.6-1 Seismic Hazards	LTS	LTS, -	LTS, -	LTS, -
3.6-2 Soil Erosion	LTS	LTS, -	LTS, -	LTS, -

Table 4.4-1: Summary of Impacts for Alternatives

<i>Impact</i>	<i>Level of Significance</i>			
	<i>Proposed Plan</i>	<i>No Project Alternative</i>	<i>Increased Employment Alternative</i>	<i>Reduced Development Alternative</i>
3.6-3 Expansive or Unstable Soils	LTS	LTS, -	LTS, -	LTS, -
3.6-4 Septic Systems	LTS	LTS, -	LTS, -	LTS, -
3.6-5 Paleontological Resources	LTSM	LTSM, -	LTSM, -	LTSM, -
3.7 Hazards and Hazardous Materials				
3.7-1 Transport, Use, or Disposal	LTS	LTS, -	LTS, -	LTS, -
3.7-2 Accidental Upset	LTSM	LTSM, -	LTSM, -	LTSM, -
3.7-3 Quarter Mile of Schools	LTS	LTS, -	LTS, -	LTS, -
3.7-4 Cortese List	LTSM	LTSM, -	LTSM, -	LTSM, -
3.7-5 Airport Hazards	NI	NI, =	NI, =	NI, =
3.7-6 Emergency Response	LTS	LTS, -	LTS, -	LTS, -
3.7-7 Wildland Fires	LTS	LTS, -	LTS, -	LTS, -
3.8 Hydrology and Water Quality				
3.8-1 Water Quality Standards	LTS	LTS, -	LTS, -	LTS, -
3.8-2 Groundwater	LTS	LTS, -	LTS, -	LTS, -
3.8-3 Drainage	LTS	LTS, -	LTS, -	LTS, -
3.8-4 Flooding	LTS	LTS, -	LTS, -	LTS, -
3.8-5 Water Quality Control Plan	LTS	LTS, -	LTS, -	LTS, -
3.9 Land Use, Population, and Housing				
3.9-1 Division of a Community	LTS	LTS, =	LTS, =	LTS, =
3.9-2 Conflict with Land Use Plan	LTS	LTS, =	LTS, =	LTS, +
3.9-3 Growth Inducement	LTS	LTS, =	LTS, =	LTS, -
3.9-4 Displacement	LTS	LTS, =	LTS, =	LTS, -
3.10 Noise				
3.10-1 Noise Standards	LTSM	LTSM, -	LTSM, =	LTSM, -
3.10-2 Vibration	LTS	LTS, -	LTS, -	LTS, -
3.10-3 Airports	LTS	LTS, =	LTS, -	LTS, -
3.11 Public Services				
3.11-1 Fire, Police, Schools, Parks, and Public Facilities	LTSM	LTS, -	LTS, -	LTS, -
3.11-2 Degradation of Parks	LTS	LTS, -	LTS, -	LTS, -

Table 4.4-1: Summary of Impacts for Alternatives

<i>Impact</i>	<i>Level of Significance</i>			
	<i>Proposed Plan</i>	<i>No Project Alternative</i>	<i>Increased Employment Alternative</i>	<i>Reduced Development Alternative</i>
3.11-3 Construction or Expansion of Recreational Facilities	LTS	LTS, -	LTS, -	LTS, -
3.12 Transportation				
3.12-1 Circulation System Plan	LTS	LTS, =	LTS, =	LTS, =
3.12-2 VMT	SU	SU, =	SU, =	SU, =
3.12-3 Traffic Hazards	LTS	LTS, =	LTS, =	LTS, =
3.12-4 Emergency Access	LTS	LTS, =	LTS, =	LTS, =
3.13 Utilities and Service Systems				
3.13-1 Facilities	LTS	LTS, -	LTS, =	LTS, =
3.13-2 Water Supply	LTS	LTS, -	LTS, =	LTS, =
3.13-3 Wastewater Capacity	LTS	LTS, -	LTS, =	LTS, =
3.13-4 Landfill Capacity	LTS	LTS, -	LTS, =	LTS, =
3.13-5 Solid Waste Regulations	LTS	LTS, -	LTS, =	LTS, =
Notes:				
LTS = Less than Significant				
LTSM = Less than Significant with Mitigation				
NI = No Impact				
SU = Significant and Unavoidable				
+/-/= = impact of the alternative is greater than, less than, or similar to the impact of the Proposed Plan				

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5 CEQA Required Conclusions

This section presents a summary of the impacts of the Proposed Plan in several subject areas specifically required by CEQA, including growth-inducing impacts, cumulative impacts, significant and unavoidable impacts, and significant irreversible environmental changes. These findings are based, in part, on the analysis provided in Chapter 3: Environmental Settings and Impacts.

5.1 Growth-Inducing Impacts

CEQA Guidelines require that an EIR “discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly” (CEQA Guidelines Section 15126.2(e)). This analysis must also consider the removal of obstacles to population growth, such as improvements in the regional transportation system.

Growth-inducing impacts, such as those associated with job increases that might affect housing and retail demand in surrounding jurisdictions over an extended time period, are difficult to assess with precision, since future economic and population trends may be influenced by unforeseeable events such as business development cycles and natural disasters. Moreover, long-term changes in economic and population growth are often regional in scope; they are not influenced solely by changes or policies related to a single city or development project, particularly in a highly urbanized region such as the San Francisco Bay Area. Business trends are influenced by economic conditions throughout the state and country, as well as around the world.

Another consideration is that the creation of growth-inducing potential does not automatically lead to growth. Growth occurs through capital investment in new economic opportunities by the private or public sector. These investment patterns reflect, in turn, the desires of investors to mobilize and allocate their resources to development in particular localities and regions. These factors, combined with the regulatory authority of local governments, mediate the growth-inducing potential or pressure created by a proposed plan. Despite these limitations on the analysis, it is still possible to qualitatively assess the general potential growth-inducing impacts of the Proposed Plan.

PROJECTED GROWTH

The Proposed Plan is intended to foster transit-oriented growth within the Planning Area, a previously developed area located entirely within the City limit, in the highly urbanized context of the San Francisco Bay Area. The Planning Area is designated as a Priority Development Area (PDA) by the City, and therefore has been identified as an appropriate location for new residential and non-residential development as part of the regional development blueprint for the San Francisco Bay Area. The Plan would not involve extending infrastructure, utilities or public services outside

of the established urban service area; on the contrary, it would concentrate new high-density residential and employment development around the Union City Intermodal Station, within the existing service area for utilities and public services.

Population

The current population within the Planning Area is estimated to be 5,000, comprising 6.8 percent of Union City’s population of 73,248. With the Proposed Plan, the Planning Area would accommodate a total population of approximately 14,400 people, representing a 188 percent increase from the existing population. This represents an average annual growth rate of 9.4 percent over 20 years in the Planning Area, along with an increase in the number of housing units from 1,720 to 5,650.

Table 5.1-1: Planning Area Population, Housing, and Job Growth Projections, 2020–2040

	<i>Existing (2020)</i>	<i>Projected Net New (2040)</i>	<i>Total Projected with Proposed Plan (2040)</i>
Population			
Planning Area	5,000	9,383	14,400
Housing Units			
Planning Area	1,720	3,930	5,650
Jobs			
Planning Area	2,300	15,900	18,200

Sources:

- 1 Association of Bay Area Governments (ABAG). 2019. Projections 2040. Available: <http://projections.planbayarea.org/>. Accessed: March 11, 2020.
- 2 CDOP. 2021. E-I Population Estimates for Cities, Counties, and the State — January 1, 2020 and 2021
- 3 U.S. Census Bureau. 2021. 2019 American Community Survey 1-Year Estimate, Table DP04. Available: https://data.census.gov/cedsci/table?q=Population%20Total&g=0500000US06001_1600000US0681204&tid=ACSDPIY2019.DP04&moe=true&hidePreview=true. Accessed September 1, 2021.
- 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. 2021. 2019 American Community Survey 1-Year Estimate, Table S0802. Available: https://data.census.gov/cedsci/table?q=Employment&t=Employment&g=0500000US06001_1600000US0681204&tid=ACSST1Y2019.S0802&vintage=2018&hidePreview=true. Accessed: September 1, 2021.

Although the population within the Planning Area is projected to increase substantially, the Proposed Plan is consistent with the overarching regional growth goals identified in Plan Bay Area, the integrated land use/transportation plan for the nine-county San Francisco Bay Area region, and statewide goals for transit-oriented development as outlined in AB 2923, BART TOD Guidelines. To reduce greenhouse gas emissions, Plan Bay Area 2050 promotes compact mixed-use infill development within walkable/bikeable neighborhoods that are close to public transit, jobs, schools, shopping, parks, recreation, and other amenities. As part of a regional planning process, local jurisdictions voluntarily identified PDAs as appropriate locations for these types of neighborhoods,

which are areas that are well-served by public transit and have been identified for high-density compact development. The adopted Plan Bay Area 2050 estimates that up to 80 percent of the region's housing growth may be met within the nearly 200 PDAs identified in the Plan. The Core Station District area is designated as a PDA in Plan Bay Area 2040, and the PDA boundary was updated in 2020 to mirror the boundaries of the entire Planning Area. Plan Bay Area 2050, which was adopted in October 2021, continues to support the goals of Plan Bay Area 2040 while identifying a path to make the Bay Area more equitable for all residents and more resilient in the face of unexpected challenges. Plan Bay Area 2050 seeks to focus development primarily in "growth geographies" that include PDAs, which are areas near existing job centers and frequent transit that are locally-identified for growth; priority production areas, which are areas identified for industrial and manufacturing job growth; transit-rich areas, where at least 50 percent of the area is within an existing or planned high frequency transit source; and high-resource areas, which are well-resourced areas with access to schools, jobs, open space, and baseline transit service.

The Proposed Plan is also consistent with the Union City 2040 General Plan's sustainable growth goals of encouraging infill and transit-oriented development, particularly within the Station District. The General Plan, which was adopted in 2019, established the Greater Station District as a "special area" targeted for higher intensity, transit-oriented development. By guiding the majority of Union City's growth and development within the Planning Area, an urbanized area with excellent regional transit access, infill development would be prioritized, and public space areas would be preserved and enhanced; by nature, the plan would therefore reduce potential for uncontrolled growth and associated impacts.

Increase in Regional Housing Demand

In the urbanized context of the Bay Area, housing and employment demand are somewhat fluid across municipalities. As the employment base in the Bay Area continues to increase, more people may be drawn to live in Union City even if they work in other nearby cities, or vice versa. As a result, housing demand may continue to increase in Union City and within the Planning Area. ABAG's Regional Housing Needs Assessment (RHNA) attempts to balance regional housing demand across Bay Area cities, and all municipalities are required to provide a "fair share" of housing. According to the Final 2023–2031 RHNA, ABAG has determined that Union City's fair share of regional housing need for the 2023 to 2031 period would be 2,728 units. To ensure that housing is available to meet the needs of future residents under the Proposed Plan, the City is currently updating its Housing Element to assess its supply of housing and provide policies and programs to ensure that the community continues to meet its fair share of regional housing needs.

Jobs/Housing Ratio

A desirable city-wide jobs-to-housing ratio is often defined as a ratio greater than 1.0 but less than 2.0. Because most households have more than one wage earner, ratios below 1.0 suggest that residents are required to commute to jobs outside of their area of residence, and ratios greater than 2.0 suggest that employers are not able to house their workers within the jurisdiction, requiring workers to commute into the area. Theoretically, a balanced jobs-to-housing ratio would reduce the need for people to commute in or out of town for work. In reality, the match of education, skills, and interests is not always accommodated within the boundaries of one community, and regional interdependencies almost always result in at least some inter-city commuting. The City cannot

dictate the residential location of future employees who may work in the Planning Area. Further, a city’s urban center would be expected to have a somewhat higher jobs-to-housing ratio than the city as a whole.

Based on the estimated buildout of the Proposed Plan, the jobs-to-housing balance in the planning area in 2040 would shift from 1.33 in 2020 to 3.22 in 2040, as shown in Table 5.1-2: Jobs-to-Housing Unit Ratio. Given that the job-to-housing ratio is projected to be 1.62 for Union City in 2040 under the Proposed Plan buildout, and that concentrating employment uses near major transit stations is consistent with regional and statewide land use and sustainability goals, the estimated jobs-to-housing ratio in the Planning Area in 2040 would not be expected to induce substantial new unplanned residential growth in areas surrounding the Planning Area.

Table 5.1-2: Jobs-to-Housing Unit Ratio (2020 and 2040)

	2020	2040 (with Proposed Plan)
Jobs¹		
Planning Area	2,300	18,200
Union City	33,813	41,733
Housing Units		
Planning Area	1,720	5,650
Union City	21,849	25,813
Jobs to Housing Unit Ratio		
Planning Area	1.33	3.22
Union City	1.50	1.62

Notes:

1. Based on assumption of 300 building square feet (sf) per office job, 250 sf per retail job, and 1,000 sf per industrial job.

Sources: Dyett & Bhatia, 2021; City of Union City, 2020; 2018 Longitudinal Employer-Household Dynamics (LEHD) Origin-Destination Employment Statistics, Census OnTheMap application, 2020; California Department of Finance Table E-5, 2021.

Public Facilities and Services

Public services for the Planning Area, including police, fire protection, schools, libraries, and parks and recreation, are currently provided by the Union City Police Department, Alameda County Fire Department, New Haven Unified School District (NHUSD), and the Alameda County and Community and Recreation Services Department, respectively. Development under the Proposed Plan would be in compliance with all applicable codes for fire safety and emergency access. NHUSD is not expected to need additional facilities in the next ten years, and its current capacity for approximately 17,160 students would accommodate the anticipated 5,372 new students that could be generated by development under the Proposed Plan. The 2040 General Plan EIR determined that the Union City Library’s current 12,000 sf facility is inadequate for the existing population it serves. To address the deficiency in the library system, the Alameda County Master Space Plan identified opportunities to improve service at each location within the system, including Union City Library. 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 Planning Area and help to address the demand for library services generated by the project.

As stated in the 2040 General Plan, developers of future growth will be responsible for paying impact fees to cover increased demands on services. As stated under Impact 3.12-1 in Chapter 3.12, Public Services, as future buildout occurs under the Proposed Plan and the 2040 General Plan, the City will evaluate operations and deployment of services to efficiently use resources, ensure sufficient staffing to serve all new development and associated population growth in the Planning Area, and monitor the need for new facilities or additional equipment needed to provide adequate public services to future and existing residents.

DIRECT AND INDIRECT GROWTH

As described above, the Proposed Plan facilitates growth in the Planning Area, and this direct growth is analyzed throughout this EIR. Impacts from direct growth on infrastructure such as public services and utilities, the transportation system, and natural resources are identified, based on the buildout of the Proposed Plan. Some of the identified effects of growth are significant and unavoidable. In general, future development under the Proposed Plan would be subject to additional site-specific environmental review under CEQA, with tiering and streamlining opportunities as provided for under State law.

Indirect growth can result from the construction of infrastructure, such as the extension of utilities or the construction of new roadways connecting urban centers to green field areas. In such cases, this extension of infrastructure to serve one property can facilitate the subsequent development of other intervening properties, effectively inducing additional growth indirectly. Given the location of the Planning Area in the urbanized context of the Bay Area and Union City, the potential for this type of indirect growth does not exist. Further, while the availability of new jobs around the Intermodal Station in the Planning Area may invite more people to move to Union City or adjacent jurisdictions, the increase of jobs in the city could reduce the need for local residents to commute farther for work and encourage more people to take transit instead of driving alone, consistent with overarching regional and State objectives for sustainable development and reduction of GHG emissions and VMT.

REMOVAL OF OBSTACLES TO GROWTH

The Decoto Industrial Park Study Area Specific Plan (DIPSA), originally adopted in 1994 and last updated in 2006, could be viewed as an obstacle to growth as it has largely been built out and its goals have been achieved. By updating the DIPSA, the Proposed Plan could be viewed as removing an obstacle to growth. The Union City 2040 General Plan would not be viewed as an obstacle to growth that would be removed by the Proposed Plan. The 2040 General Plan envisions the Planning Area as an area with great potential to embody the City's economic, land use, community design, mobility, and housing goals, and divides it into five subareas that have the most potential to develop or redevelop within the horizon of the 2040 General Plan. Specific impacts resulting from these changes are analyzed by resource area in Chapter 3 of this EIR.

5.2 Cumulative Impacts

CEQA requires that an EIR examine cumulative impacts. As discussed in CEQA Guidelines Section 15130(a)(1), a cumulative impact “consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts.” Furthermore, the analysis of cumulative impacts need not provide the level of detail required of the analysis of impacts from the project itself, but shall “reflect the severity of the impacts and their likelihood of occurrence.” (CEQA Guidelines Section 15130(b)).

In order to assess cumulative impacts, an EIR must analyze either a list of past, present, and probable future projects or a summary of projections contained in an adopted general plan or related planning document. Because the Proposed Plan’s planning area represents only a portion of the City of Union City, the cumulative development scenario also incorporates probable future projects resulting from the 2040 Union City General Plan and Bay Area projected growth in general. This analysis uses the summary projections of the Proposed Plan.

Several analyses presented in Chapter 3: Environmental Settings and Impacts represent cumulative analyses of issues through the Proposed Plan horizon year of 2040 because they combine the anticipated effects of the Proposed Plan with anticipated effects of regional growth and development. By their nature, the air quality, transportation, noise, energy and greenhouse gas emissions, and climate change analyses presented in Chapter 3 represent a cumulative analysis, because the effects specific to the Proposed Plan cannot reasonably be differentiated from the broader effects of regional growth and development. Thus, analyses for these topics reflect not just growth in the Planning Area, but growth elsewhere in the region as well. The cumulative conclusions are summarized there, and where applicable, significant unavoidable impacts are listed in Section 5.3, Significant and Unavoidable Impacts. Other cumulative impacts are identified below.

AESTHETICS

The cumulative geographic context for aesthetics is the Planning Area as well as view corridors, view sheds, or scenic resources in the immediate vicinity and visible from the Planning Area.

The scenic resources in the Planning Area and immediate vicinity are the views of the hillside area and open space to the east of the Planning Area. A significant cumulative impact would result if development facilitated in the Planning Area in combination with other development in the vicinity blocked these views. Development in the Planning Area’s vicinity would occur in either Union City or unincorporated Alameda County, and would be regulated by either the Union City 2040 General Plan or the East County Area Plan, respectively. The Union City 2040 General Plan designates the hillside areas as Open Space and Agriculture. The Hillside Area Plan would allow limited residential development in the Hillside Area. The General Plan also designates surrounding areas for single family residential use. Therefore, foreseeable development in these areas are not likely to result in structures tall enough to block scenic views and vistas. New development within the Planning Area would be in the existing urbanized area and the largely undeveloped Gateway subarea. New structures, particularly taller buildings in the Core, could be oriented or scaled in such a way that views of the hillside area are blocked from specific locations in the Planning Area. To address this

potential impact, future development in the Planning Area would be required to conform with design standards and policies within the Proposed Plan and the 2040 General Plan which would minimize visual intrusion, support visual and physical access to scenic vistas and open space, and assist in reducing obstructions of view of the scenic vistas associated with the open space areas of the City while improving the aesthetic character of the Planning Area. However, despite the beneficial effects of these policies and standards, because taller buildings have the potential to partially block views of the hills and no mitigation is available to entirely eliminate the impact, the cumulative impact of the Proposed Plan on scenic resources would be significant and unavoidable.

Implementation of the Proposed Plan in combination with other development in the vicinity would introduce new sources of light within the cumulative geographic context, including light spillover from buildings, outdoor security lights, lighted signs, streetlights, and vehicle headlights, in addition to glare produced by reflective surfaces and unshielded equipment. A significant impact would occur if these new sources of light had an adverse impact on day and nighttime views in the area. Future development within the Planning Area would be within an urbanized area that already has sources of light and glare. New development would be subject to the Proposed Plan's design standards DS-UD-50 and DS-UD-56, which minimize glare by shielding light on new developments and parking structures. Development within all areas of Union City, including the Planning Area and its immediate vicinity, would be required to adhere to the relevant standards on light and glare in the California Building Code and the design criteria for signage in Section 18.30.070 of the Union City Municipal Code. Given that the Proposed Plan would not substantially increase the amount of nighttime lighting or glare in the already urbanized city environment, and that all development in the area would be regulated by design standards and code restrictions, the cumulative impact of the Proposed Plan on light and glare would be less than significant.

There are no state scenic highways within or visible from the Planning Area, and therefore the Proposed Plan would have no cumulative impact on the destruction of resources along a scenic highway.

Development under the Proposed Plan would be consistent with applicable policies and standards for new development as well as regulations governing scenic quality in the urbanized area, including the Zoning Ordinance and General Plan. Impacts from the Proposed Plan, in conjunction with other plans and projects in the region, that could conflict with existing zoning or other regulations which govern scenic quality are not cumulative in nature.

AIR QUALITY

As discussed above, the BAAQMD has identified project-level thresholds to evaluate criteria pollutant impacts (Table 3.2-5). In developing these thresholds, the BAAQMD considers levels at which project emissions are cumulatively considerable. As noted in the 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.

As discussed above, the BAAQMD's project-level thresholds do not lend themselves well to the analysis of specific plans. Rather, it is more appropriate to evaluate planning-level documents for their consistency with the most recently adopted attainment plan, which is the 2017 Clean Air Plan for the SFBAAB. As discussed under Impact 3.2-1, the Proposed Plan would support the goals of the BAAQMD's 2017 Clean Air Plan, include all applicable control measures, and would not conflict with its implementation. The Proposed Plan's objectives and principles would ultimately reduce the severity of growth-oriented criteria pollutants, relative to conditions without the Proposed Plan. However, individual development projects may still generate construction and operational emissions in excess of the BAAQMD's project-level thresholds, even with implementation of **MM AQ-1** through **MM AQ-9**. Accordingly, ROG, NO_x, PM₁₀, and PM_{2.5} emissions associated with development under the Proposed Plan are conservatively identified as cumulatively considerable, resulting in a significant and unavoidable impact.

According to the BAAQMD's guidelines, combined risk levels should be determined from all nearby DPM sources within 1,000 feet of a project site, and these combined risk levels should be compared to the BAAQMD's cumulative health risk thresholds. Existing nearby DPM and PM_{2.5} sources and future development under the Proposed Plan contribute to a cumulative health risk for sensitive receptors within the Planning Area.

As discussed above under Impact 3.2-3, a quantitative evaluation of potential health risk impacts for the Proposed Plan is not possible. **MM AQ-2** through **MM AQ-4**, and **MMAQ-11** would reduce construction and operational health risks to existing and future receptors, but there may be instances where project-specific conditions preclude the reduction of health risk below adopted thresholds and expose receptors to cumulative health risks. **MM AQ-10** would require project-level HRAs for future development projects and these project-level HRAs would include a cumulative health risk analysis. However, due to the uncertainty of future project-level HRAs, it is conservatively assumed that the Proposed Plan would result in significant and unavoidable health impacts from TAC emissions and this impact is considered cumulatively considerable.

BIOLOGICAL RESOURCES

The biological cumulative geographic context for biological resources is the City of Union City. 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.

As described above, the Planning Area is largely developed and located entirely within City limit, in the highly urbanized context of the San Francisco Bay Area. As such, the majority of the Planning Area is developed with structures or agriculture land cover and the surrounding area is also mostly developed. The Planning Area retains little natural habitat or land suitable for sensitive and special status species, and it exhibits a high level of disturbance. Nevertheless, future development within the Planning Area has the potential to have significant impacts on biological resources. Implementation of Mitigation Measure BIO-1 (Sensitive Biological Resource Protection) would ensure the protection of sensitive biological resources including special status species and their habitat, which would offset any impacts on the biological resource prior to conducting development activities. Implementation of Mitigation Measure BIO-2 (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 Measure BIO-3 (Bat and Roosting Habitat Protection) would ensure the protection of roosting bats, which would reduce the project's impact on residing bat species and impeding the use of native wildlife nursery sites to a less-than-significant level. Tree removals would require permits through public works, and subsequent tree replacement would occur per Chapter 12.16 of the Municipal Code. Additionally, development resulting from the Proposed Plan, as well as future development projects that could occur within the Planning Area or in the vicinity of the Planning Area, would be subject to the requirements of biological resource protection laws, including FESA, CESA, MBTA, and the California Fish and Game Code, as well as protection policies and provisions in the City's 2040 General Plan and Municipal Code.

With implementation of Mitigation Measures BIO-1, BIO-2, and BIO-3, including compliance with federal, state, and local regulations, the Proposed Plan's contribution to cumulative biological resources impacts would be less than cumulatively considerable.

CULTURAL, TRIBAL, AND HISTORIC RESOURCES

The cumulative geographic context for cultural, historic, and tribal cultural resources is the City of Union City. If the Proposed Plan, in combination with other past, present, and reasonably foreseeable projects in Union City, would result in the loss of or adverse changes to multiple historic or cultural resources a significant cumulative impact could result. However, as described in Chapter 3.4 of this Draft EIR, the 2040 General Plan and the Municipal Code provide a framework for the preservation of cultural and historic resources. At the time development or redevelopment projects are proposed, any project-level CEQA document would need to identify potential impacts on known or potential historic sites and structures. Such project-level review in combination with the Proposed Plan policies requiring the consideration of historical resources within the Planning Area would ensure that the Proposed Plan's incremental contribution to this impact would not be cumulatively considerable.

No archaeological resources are known to be present in the Planning Area, but there are sites in the Planning Area that may be sensitive for unrecorded resources, most notably anywhere that has been under occupation or use for at least 45 years. Anticipated development projects under the Proposed Plan may involve grading, excavation, or other ground-disturbing activities, which could have a cumulative impact on unknown archaeological resources. However, compliance with General Plan policies, as well as applicable local, State, and federal laws, would ensure that the Proposed Plan's contribution to this impact would not be cumulatively considerable.

All development projects allowed under the Proposed Plan would be required to comply with State laws pertaining to the discovery of human remains and disposition of Native American burials; therefore, the Proposed Plan would result in a less than cumulatively considerable contribution to impacts related to human burials.

There are known Native American tribal cultural resources within the Planning Area, and development projects allowed under the Proposed Plan may result in the identification of unrecorded tribal cultural resources given the historic occupation of the area. Future projects that

would not otherwise qualify for an exemption under CEQA would be required to comply with the provisions of AB 52 to incorporate tribal consultation into the CEQA process. Therefore, the Proposed Plan's contribution to this impact would not be cumulatively considerable.

ENERGY AND GHG EMISSIONS

By their nature, the energy and greenhouse gas emissions impacts analyzed in Chapter 3 represent a cumulative analysis, because the effects specific to the Proposed Plan cannot reasonably be differentiated from the broader effects of regional growth and development. Thus, analyses for these topics reflect not just growth in the Planning Area, but growth elsewhere in the region as well. Please see Section 3.5 for a discussion of cumulative impacts associated with Energy and GHG emissions.

GEOLOGY, SOILS, AND SEISMICITY

The cumulative geographic context for geology and soils consists of sites within the Planning Area and nearby properties in the immediate vicinity. Although regional geographies can be similar, in general, geology and soils impacts do not typically combine such that a larger geographic context would be involved. 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, Proposed Plan, and California Building Standards Code requirements. The standards presented in these documents 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. For these reasons, project building under the Proposed Plan, in combination with other past, present, and reasonably foreseeable future projects, would not result in a significant cumulative impact on geology and soils. Therefore, no significant cumulative impact exists in the geographic context for geology, soils, and seismicity.

All significant paleontological resources are unique and nonrenewable resources. Unlike archaeological resources, which are site-specific, paleontological resources can occur throughout a sensitive geologic unit, regardless of location. Therefore, the geographic context for paleontological resources encompasses the complete extent of geologic units with high or undetermined paleontological sensitivity that underlie the Plan Area. It is likely that significant paleontological resources in these geologic units have been and could in future be destroyed by development. Therefore, a cumulative impact on paleontological resources in the geographic context exists.

Past development in the geographic context has removed the upper layers of this geologic unit in some areas and replaced it with artificial fill. However, this fill is underlain by older Quaternary alluvium, which has high paleontological sensitivity. While the Proposed Plan would not directly involve ground-disturbing activities that could damage or destroy unique paleontological resources, it would enable development that would involve ground disturbance. This future development, in combination with other foreseeable development in the identified geographic context, has the potential to encounter and damage or destroy previously unknown paleontological resources during both construction and operation. However, compliance with Policy RC-4.8, Protection of Paleontological Resources, would avoid any project-level impacts on paleontological resources. Therefore, the contribution of the Proposed Plan to the cumulative impact on paleontological resources would not be cumulatively considerable.

HAZARDS AND HAZARDOUS MATERIALS

The cumulative geographic context for hazards and hazardous materials consists of sites within the Planning Area and nearby properties in the immediate vicinity. In general, only projects occurring in the immediate vicinity to the Planning Area are considered due to the limited potential impact area associated with the release of hazardous materials into the environment. Similar to sites within the Planning Area, reasonably foreseeable projects in the Proposed Plan's surroundings 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, the handling and transportation of hazardous materials by all projects (including projects within the Planning Area) would be regulated under federal, state and local authority and no significant cumulative impact would occur. Furthermore, 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 the *Regulatory Setting*. In addition, impacted sites under development would undergo remediation under oversight of applicable state and local agencies, effectively reducing the amount of contaminants found in the cumulative project area. 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 the Proposed Plan) would be implemented as a condition of development approval to mitigate risks associated with exposure to hazardous materials. For these reasons, the Proposed Plan, in combination with other past, present, and reasonably foreseeable future projects, would not result in a significant cumulative hazards or hazardous materials impact.

HYDROLOGY, DRAINAGE, AND WATER QUALITY

The context for surface hydrology and water quality is the Lower Alameda Creek sub-watershed. The context for groundwater hydrology is the Santa Clara Valley Groundwater Basin. Thus, overall, the cumulative geographic 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. Future development in the geographic context for hydrology and water quality would be required to comply with regulations and policies including NPDES Construction General Permit adopted by the SWRCB; San Francisco Bay RWQCB's NPDES permit and Waste Discharge Requirements for MS4 discharges; Sustainable Groundwater Management Act; Alameda Countywide Clean Water Program and local municipal codes. For these reasons, under the Proposed Plan, in combination with other past, present, and reasonably foreseeable future projects, would not result in a significant cumulative impact on hydrology and water quality.

The Lower Alameda Creek watershed is predominantly 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. Regional growth and 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 Planning Area and within the Lower Alameda Creek sub-watershed would be constructed 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 Plan, all future development in the geographic context for hydrology and water quality would be required to include post-construction stormwater management features, such as LID treatment measures, to maintain flows to pre-project conditions. Future development would be subject to the requirements of the San Francisco Bay MS4 Permit, Alameda Countywide Clean Water Program, and local municipal codes related to protecting water resources. Therefore, the contribution of the Proposed Plan to the cumulative impact on hydrology and water quality would not be cumulatively considerable.

LAND USE, POPULATION, AND HOUSING

The context for land use is the City of Union City. The cumulative geographic context for population and housing is the regional Bay Area.

Projects that could have the effect of physically dividing an established community—such as a major new road, highway, or similar infrastructure—tend to have a singular rather than cumulative impact. However, a significant impact could occur if new development in the Planning Area in combination with foreseeable development in Union City physically divided an established community. The Proposed Plan would not introduce any physical barriers to the Planning Area and would generally improve connectivity for all users by envisioning the creation of a fine-grain street network. Foreseeable development within Union City would be subject to General Plan Policy LU-1.6, which requires new large-scale development projects to be integrated into the fabric of the existing community and improve overall connectivity. Therefore, the cumulative impact of the Proposed Plan on the division of an existing community would be less than significant.

Impacts from plans and projects in the region that could conflict with existing plans, including the Bicycle and Pedestrian Master Plan, Plan Bay Area 2050, and the Union City 2040 General Plan, are not cumulative in nature.

Potential impacts related to population and housing, however, can be cumulative in nature, with the potential to affect the entire metropolitan region, as new jobs could attract residents to nearby cities, and new residents might seek employment in other nearby places. A significant impact could occur if the Proposed Plan, in combination with foreseeable development in the wider Bay Area, led to substantial direct or indirect unplanned population growth. Population growth, by itself, is not an environmental impact; however, the direct and indirect effects, such as housing and infrastructure needs that are related to population growth, can lead to physical environmental effects. In its Plan Bay Area growth forecasts, ABAG projected that Union City would experience a total population growth of 3,630 people, and 220 new housing units between 2020 and 2040. Development under the Union City 2040 General Plan is projected to result in 11,486 new residents, 4,330 housing units, and 18,758 new jobs in Union City by 2040. Within the Planning Area, the 2040 General Plan is projected to result in approximately 6,900 new residents, 2,900 new housing units, and 11,500 new jobs. Development associated with implementation of the Proposed Plan is projected to result in approximately 9,400 new residents, 3,930 new housing units, and 15,900 new jobs by 2040. While this represents a substantially higher amount of population, housing, and job growth than the Plan Bay Area projections, buildout of the Proposed Plan would result in a substantially similar level of growth as anticipated under the 2040 General Plan, and evaluated in the 2040 General Plan EIR. Plan Bay Area 2040 designated the Planning Area as a Priority

Development Area (PDA), which is an area targeted for higher density/intensity development due to its proximity to regional transit; it is the goal of Plan Bay Area to accommodate the bulk of the region's growth within the region's PDAs through infill and transit-oriented development. Additionally, it is the specific purpose of the project to guide growth and development in Union City such that infill development would be prioritized and open space areas would be preserved and enhanced. Therefore, by its nature, the Proposed Plan is intended to reduce the potential for uncontrolled growth and associated environmental impacts, and the cumulative impact of the Proposed Plan would be less than significant.

Indirect displacement within the Bay Area resulting from development within the Planning Area could potentially occur through gentrification, or the process of neighborhood economic and demographic change in an existing area, which often results from real estate investment and increased demand from higher-income residents. A significant impact would occur if the Proposed Plan, in combination with foreseeable development in the Bay Area, led to the displacement of long-term residents as a result of new investments and necessitated the construction of new housing elsewhere. Both the Proposed Plan and Plan Bay Area contain anti-displacement strategies and policies to reduce potential displacement and maximize affordable housing options within the area of geographic context. Union City's Housing Element and Municipal Code contain provisions to protect against the indirect displacement of housing units and people in Union City, including the Planning Area. The City has also adopted an Affordable Housing Ordinance that requires 15 percent of units within new housing developments of seven or more units be affordable to very low-, low-, and moderate-income households. Given that the Proposed Plan would result in 3,930 new housing units, exceeding the amount which was projected by ABAG, and that new development would adhere to existing and proposed regulations regarding affordable and fair housing choices, implementation of the Proposed Plan would have a less than significant cumulative impact on land use, population and housing.

NOISE AND VIBRATION

The cumulative geographic context for noise and vibration is the Planning Area and the immediate vicinity. The noise analysis represents cumulative analyses of issues through the Proposed Plan because it combines the anticipated effects of the Proposed Plan with anticipated effects of growth and development within the Union City and the Bay Area region through 2040. By its nature, the noise analysis represents a cumulative analysis, because it accounts for the contribution that citywide and regional growth will make to the noise environment within the Planning Area through modeling that factors in road and rail traffic generated from projects throughout the wider region. Consequently, the impact significance conclusions discussed in Chapter 3.11 are representative of cumulative impacts.

The Proposed Plan would result in both short-term and long-term changes to the existing noise environment in the Planning Area. Construction activities, including traffic, demolition, and reconstruction, would generate ambient and groundborne noise. Construction associated with the Proposed Plan in conjunction with building activity in the immediate vicinity resulting from the Union City 2040 General Plan could have a cumulative impact on ambient noise levels. However, there are a variety of policies, codes, and regulations in place to prevent against substantially adverse impacts, particularly to sensitive land uses. The Proposed Plan Policy P-EQ-04 would require construction contractors to implement measures when working nearby sensitive receptors, and

Union City 2040 General Plan policies S-8.8 and S-8.9 impose limits on construction hours and implement construction noise control measures to mitigate the impact of noise from construction impacts. Additionally, General Plan Mitigation Measure N-1 would further reduce groundborne vibration and noise impacts of construction projects by requiring equipment staging areas, electrically-powered tools and facilities, smart back-up alarms, and additional noise attenuation techniques. Additionally, all new construction would be required to comply with noise and vibration level restrictions which regulate the time and intensity of construction in the Union City Municipal Code.

New development resulting from the Proposed Plan could result in a cumulative impact on ambient noise levels from traffic, construction, and increased rail frequency. However, the Proposed Plan includes a number of policies, including P-EQ-01, P-EQ-02, P-EQ-04, and P-EQ-06, designed to reduce noise and vibration impacts on sensitive receptors. Standard building construction can typically provide an exterior-to-interior noise reduction of up to 20 dB. Furthermore, future development under the Proposed Plan would be subject to 2040 General Plan policies that require a wide range of measures to reduce noise impacts on sensitive receptors, such as forced-air ventilation systems (air conditioning), installation of noise attenuating windows, use of wall/ceiling insulation, site design and setbacks, and noise buffering measures for new uses with the potential to generate significant noise (2040 General Plan policies S-8.3, S-8.4, S-8.6, S-8.7). 2040 General Plan policies S-8.4 and S-8.5 would also require preparation of a noise impact analysis for new noise sensitive land uses and disclosure of potential noise impacts. Implementation of this comprehensive suite of Proposed Plan and 2040 General Plan policies, as well as requirements codified in Article 4 of Title 9 of the Union City Municipal Code, would therefore reduce potential noise and vibration impacts to sensitive receptors along major roadways in and around the Planning Area to a less than significant level despite increases in traffic noise.

Together, these policies, mitigation measures, and noise level restrictions in the Union City Municipal Code would ensure that adverse noise and vibration impacts associated with construction be attenuated to a less than significant impact. The Proposed Plan would result in no impact from airport noise, and therefore, its impact on noise and vibration would result in a less than cumulatively considerable impact.

PUBLIC SERVICES AND RECREATION

The geographic context for all public services and recreation, with the exception of fire services, is Union City; the geographic context for fire services is Alameda County Fire Department service area, which includes a roughly 508 square mile region including the unincorporated areas of Alameda County (excluding Fairview), the cities of San Leandro, Dublin, Newark, Union City and Emeryville, the Lawrence Berkeley National Laboratory and the Lawrence Livermore National Laboratory.

Buildout of the Proposed Plan and the Union City General Plan would result in 9,400 new residents. The City's goal for police services staffing-to-population ratio is 2.1 officers per 1,000 residents. As the City currently employs 81 sworn officers, the 2040 General Plan EIR identifies a need to incrementally increase their police services to a total of 177 sworn officers in order to meet the police service ratio in 2040. Adherence to Proposed Plan Goal G-PF-03, P-PF-07, and General Plan policies PF-1.1 and PF-1.3 would require new development to adequately address public safety

concerns through building design and site planning, as well as requiring developers to support the financing of public facilities and services, including police service. The General Plan EIR concludes that construction of a new police station facility would not be required as a result of development within the Planning Area; given that the buildout of population within the Planning Area is substantially similar to projections under the 2040 General Plan, 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 impacts associated with development under the Proposed Plan will be offset by required developer fees.

In Union City, fire protection services are provided by the Alameda County Fire Department. According to the ACFD, if an increase in staffing is needed as a result of buildout under the Proposed Plan, Fire Station 33 can accommodate one additional engine company which would include 6 people and 1 Battalion Chief. Therefore, it is not anticipated that a new fire station facility would be required as a result of the Proposed Plan. Consistent with Proposed Plan Policies P-PF-04 and 2040 General Plan Policy PF-10.2, as future buildout occurs under the Proposed Plan and the 2040 General Plan, the City will evaluate operations and deployment of services to efficiently use resources, ensure sufficient staffing to serve all new development and associated population growth in the Planning Area, and monitor the need for a new fire station and/or additional equipment.

Public schools are provided by school districts to areas within their jurisdictions. While districts may have cross jurisdictional boundaries, school services are still provided at the local, rather than regional, level. . Project applicants for development under the Proposed Plan 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 impacts on NHUSD capacity and would provide funding for potential future school facility development needs associated with the Proposed Plan-related population increase. Therefore, due to available school capacity, compliance with SB50 and implementation of Proposed Plan policies, construction or expansion of new school facilities would not be required and this impact would be less than significant.

Several agencies provide park and recreation services in the region, including counties, cities, and special districts. To ensure that park land and park access within Union City increase concurrently with population growth, the Urban Design chapter of the Proposed Plan includes multiple policies stipulating requirements for parks, plazas and paseos, and recreation opportunities (goals G-UD-01, G-UD-02, policies P-UD-01, P-UD-02, P-UD-03, P-UD-05, P-UD-07, P-UD-08, P-UD-11, P-UD-15, P-UD-21, P-UD-24). Land Use policies create opportunities for additional open space and community gardens. Policy P-UD-4 and P-UD-8 requires new developments to provide an array of easily accessible open spaces. Compliance with Proposed Plan policies that stipulate requirements for parks and plazas and expand recreational opportunities and 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 population growth associated with the Proposed Plan would not result in substantial physical deterioration of existing parks and recreation facilities. Although no such facilities are directly proposed under the Proposed Plan, the expansion of existing recreational facilities or the construction of new ones would be permitted. Given that the precise location and design of such facilities cannot be known at this time, potential environmental impacts cannot be determined. However, environmental impacts related to construction emissions,

VMT, and biological resources associated with the construction or expansion of new public and recreational facilities are accounted for in technical modeling provided in other chapters of this EIR and the 2040 General Plan EIR. Future facilities will be able to tier from this EIR to identify and mitigate site specific impacts if and when design of those facilities is complete.

Therefore, the contribution of the Proposed Plan to the cumulative impact on public services and recreation would not be cumulatively considerable.

UTILITIES AND SERVICE SYSTEMS

Future development anticipated by the Proposed Plan would generate additional demand for water and wastewater, stormwater, solid waste services, power, and telecommunications services.

The cumulative effects on water supply and groundwater are discussed above in the Hydrology and Water Quality section; this evaluation focuses on impacts on the water treatment and distribution systems. Water to the Planning Area is supplied by the Alameda County Water District (ACWD), which also serves water to the Cities of Fremont and Newark. Implementation of the Proposed Plan would increase water demand by 249 percent between 2020 and 2040. This increase is substantially higher than that anticipated by ACWD for the entire service area of 102.5 percent. However, ACWD would have sufficient capacity to accommodate the new water demand even beyond its projected demand for the service area. The ACWD Urban Water Management Plan identifies sufficient supplies to serve customers in normal years, and establishes a Water Shortage Contingency Plan to support water supply during droughts. Therefore, the Proposed Plan's contribution to this potentially significant cumulative impact is less than cumulatively considerable.

With regards to wastewater treatment and distribution, the Planning Area is served by the Alvarado Treatment Plant within the service boundaries of the Union Sanitary District (USD). The Alvarado Treatment Plant experienced an average daily flow of 23.7 million gallons per day (MGD) for 2019 and has the capacity to treat and discharge 33 MGD. Infiltration and inflow is not a significant issue within the District. Estimated flow under the Proposed Plan is only 1.78 MGD. Therefore, there is adequate capacity to serve the buildout population and the impact would not be cumulatively considerable.

Because Union City provides stormwater and flood management within its borders, and owns and operates the stormwater drainage system, these systems are largely isolated from the rest of the region. Thus, the impacts on stormwater facilities are not cumulative in nature, and are less than cumulatively considerable.

Solid waste from Union City is primarily disposed of at the Fremont Recycling and Transfer Station operated by Republic Services of California and the Altamont Landfill and Resource Recovery Facility operated by Waste Management. Union City's disposal agreement with Waste Management ensures long-term disposal capacity at the Altamont Landfill, which has a permitted remaining capacity of 65.4 million tons as of 2016 and daily capacity of 11,150 tons. The annual solid waste generated by the Proposed Plan would be approximately 0.008 percent of the permitted remaining capacity of the landfill and the daily solid waste generated by the Proposed Plan would be approximately 0.12 percent of the permitted daily capacity of the landfill. Therefore, the

Proposed Plan's contribution to this potentially significant cumulative impact would not be cumulatively considerable.

Existing overhead and underground electrical lines extend throughout the Planning Area and were originally installed to serve the variety of existing land uses. Given that implementation of the Proposed Plan would not significantly change the general types of land uses located within the Planning Area, the existing electricity infrastructure would be sufficient to serve new development. For natural gas supply, it is likely that the existing low-pressure pipe network that runs throughout the Station District Specific Plan Area will serve new development. Therefore, the impact of the Proposed Plan on power infrastructure would not be cumulatively considerable.

5.3 Significant and Unavoidable Impacts

Significant unavoidable impacts are those that cannot be mitigated to a level that is less than significant. According to CEQA Guidelines 15126.2(b), an EIR must discuss any significant environmental impacts that cannot be avoided under full implementation of the proposed program, including those that can be mitigated, but not to a less-than-significant level. The analysis in Chapter 3 determined that the Proposed Plan would result in significant impacts related to aesthetics, air quality, cultural resources, energy and GHG emissions, and transportation that, even with implementation of mitigation measures, would remain significant and unavoidable. Additionally, the analysis determined that the Proposed Plan would result in significant impacts to aesthetic resources; however, the analysis concluded that there are no feasible mitigation measures available to reduce these impacts. These impacts are summarized below:

AESTHETICS

Development under the Proposed Plan would include construction of multi-story buildings, particularly in the Core subarea, that could obstruct views toward the foothills of the Coastal Range, identified as scenic vistas in the 2040 General Plan. Development of the tallest structures would be permitted in the highly urbanized area adjacent to the Union City Intermodal Station in a manner consistent with the adopted 2040 General Plan, regional PDA planning objectives, and minimum zoning requirements for height and density on BART-owned properties pursuant to Assembly Bill 2923. Further, policies and standards in the Proposed Plan would ensure that new development is integrated to minimize impacts to visual character and scenic resources to the maximum extent practicable; however, the Proposed Plan would reduce but not eliminate impacts related to scenic vistas. Beyond the Proposed Plan policies and standards, there are no mitigation measures available to avoid impacts to scenic vistas entirely. As such, this impact would remain significant and unavoidable.

AIR QUALITY

The concurrent construction of a multitude of individual development projects that could occur at any one time in the Planning Area under the Proposed Plan would generate combined criteria pollutant emissions on a daily basis that would exceed the BAAQMD's project-level thresholds. In addition, depending on the size and scale of an individual development project, along with its construction schedule and other parameters, there may also be instances where the daily

construction emissions generated by a single development project within the Planning Area could also exceed the BAAQMD's criteria pollutant thresholds. These emissions could contribute to ozone formation and other air pollution in the SFBAAB, which at certain concentrations, can contribute to short- and long-term human health effects. Mitigation Measures AQ-1 through AQ-6 are proposed to reduce impacts of construction emissions, but impacts would remain significant and unavoidable.

Additionally, although the Proposed Plan would reduce the severity of growth-oriented criteria pollutants by fostering bicycle and pedestrian infrastructure, and supporting sustainable land use patterns, including mixed-use design and increased density, individual projects may still generate operational emissions in excess of the BAAQMD's project-level thresholds. Accordingly, operational criteria pollutant emissions associated with development under the Proposed Plan would result in a potentially significant impact on air quality and Mitigation Measures AQ-7 through AQ-9 would be required. However, the impact would remain significant and unavoidable.

Even with the Proposed Plan's policies and mitigation measures, additional emissions generated by new stationary sources, vehicle trips, and construction activity could expose sensitive receptors to cancer and non-cancer risks excess of the BAAQMD significance thresholds. Mitigation Measures AQ-10 and AQ-11 would minimize health risks by requiring health risk assessments and air quality equipment, but impacts would remain significant and unavoidable.

CULTURAL AND HISTORIC RESOURCES

Development under the Proposed Plan would potentially entail the demolition of the Peterson Farmhouse. The Peterson Farmhouse is located within the Gateway subarea and has been determined eligible for listing in the CRHR and qualifies as a historical resource under CEQA. An assessment of the Peterson Farmhouse completed by California Department of Transportation (Caltrans) in May 2021 (see Appendix H) determined that the property is in a state that it cannot be sold and moved to another location. Demolition of the property would result in a substantial adverse change to historical resources as defined by CEQA Guidelines Section 15064.5. Implementation of Mitigation Measures CUL-2 through CUL-3 would partially compensate for the impact associated with demolition of the resource through relocation or documentation and interpretation; however, because these measures would not be enough to avoid or reduce the impact, the demolition of the Peterson Farmhouse would remain significant and unavoidable with mitigation incorporated.

ENERGY, CLIMATE CHANGE, AND GREENHOUSE GAS EMISSIONS

While the Proposed Plan would be consistent with policies and plans that encourage energy conservation, energy efficiency, and sustainability, given that it would not achieve a 14.3 percent VMT per capita reduction target by 2040, the Proposed Plan's mobile-source GHG emissions would conflict with SB 743 and the State's long-term climate change planning goals even after the application of recommended mitigation measures. As such, the Proposed Plan would result in significant and unavoidable impacts related to operation GHG emissions and conflicts with policies and regulation adopted for the purpose of reducing the emissions of greenhouse gases.

TRANSPORTATION

Goals and policies in the Proposed Plan are designed to reduce VMT in the Planning Area by fostering high intensity development around the Union City Intermodal Station, through multi-modal transportation improvements, and with trip reduction measures. However, even with implementation of these VMT reduction measures VMT per service population in the Planning Area would not achieve the 15 percent reduction from existing regional levels by 2040 as recommended by the OPR Technical Advisory. There are no other feasible mitigation measures available because the Proposed Plan emphasizes development designed to reduce VMT and contains goals and policies aimed at minimizing VMT, including transportation demand management strategies. Therefore, impacts would remain significant and unavoidable.

5.4 Significant Irreversible Environmental Changes

CEQA Guidelines require an EIR to consider whether “uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely” (CEQA Guidelines Section 15126.2(d)). “Nonrenewable resources” refers to the physical features of the natural environment, such as land or waterways, and resources that are renewable only over long time spans, such as soil productivity. A resource commitment is considered irretrievable when the use or consumption of the resource is neither renewable nor recoverable for use by future generations. Irreversible changes and irretrievable commitments of non-renewable resources anticipated by the Proposed Plan include the following issues. The Proposed Plan would involve two types of resources: (1) general industrial resources including fuels and construction materials; and (2) project-specific resources such as land, biotic, and cultural resources at the building sites.

COMMITMENT/CONSUMPTION OF NON-RENEWABLE RESOURCES

Implementation of the Proposed Plan could result in the long-term commitment of various resources to urban development. While the Proposed Plan itself would not directly entitle or result in any new development, it is reasonably foreseeable that the Proposed Plan, which acts as a blueprint for growth and development in the Planning Area over the next 20 years, could result in significant irreversible impacts related to the commitment of non-renewable and/or slowly renewable natural and energy resources, such as:

- **Air Quality:** Increases in vehicle trips resulting from buildout of the Proposed Plan would potentially contribute to long-term degradation of air quality and atmospheric conditions in the region. Technological improvements in automobiles, including the growth of the electric vehicle market share, may lower the rate of air quality degradation in the coming decades. Nonetheless, vehicle trips resulting from implementation of the Proposed Plan could result in the irreversible consumption of nonrenewable energy resources, primarily in the form of fossil fuels, natural gas, and gasoline for non-electric automobiles and long-term degradation of air quality.

- **Water Consumption:** To the extent that the Proposed Plan would accommodate new population and jobs, it would increase the demand for water and place a greater burden on water supply. While additional residents and workers would use more water, the City is expected to have adequate water to meet demand in normal and wet years in 2040. Despite the change in demand resulting from the Proposed Plan being marginal, the increase would represent an irreversible environmental change, as use of this resource would increase.
- **Energy Sources:** Residential and non-residential developments use electricity, natural gas, and petroleum products for lighting, heating, and other indoor and outdoor power demands, while automobiles use both oil and gas. New development anticipated by the Proposed Plan would result in increased energy use for the operation of new buildings and for transportation. This new development would therefore result in an overall increased use of both renewable and nonrenewable energy resources. To the extent that new development uses more nonrenewable energy sources, this would represent an irreversible environmental change.
- **Agricultural Resources:** The Planning Area is a previously developed area located entirely within the City limit. However, Grazing Land and land in active agricultural use does exist in the Planning Area. While the Proposed Plan envisions an "agri-hood" within the Gateway Subarea, implementation of the Proposed Plan could nonetheless result in the conversion of these lands to non-agricultural uses in areas designated as Residential and Private Institutional land uses. This loss may be considered an irreversible environmental change.
- **Cultural Resources:** Implementation of the Proposed Plan could result in substantial adverse change to historical and cultural resources through demolition, alterations, changed in ownership, and accidents caused by construction activities. Development under the Proposed Plan would potentially entail the demolition of the Peterson Farmhouse which qualifies as a historical resource under CEQA. Thus, demolition of the property would result in an irreversible environmental change to a historic and cultural resource in the Planning Area.

CONSTRUCTION-RELATED COMMITMENTS

Irreversible environmental changes could also occur during the course of constructing development projects anticipated by the Proposed Plan. New construction would result in the consumption of building materials (such as lumber, sand and gravel), natural gas, and electricity, water, and petroleum products to process, transport and build with these materials. Though it is possible for construction equipment to be fueled by renewable sources over the course of the Proposed Plan buildout, the timing and availability of these energy sources is unknown. Construction equipment running on fossil fuels would be needed for excavation and the shipping of building materials. Due to the non-renewable or slowly renewable nature of these resources, this represents an irretrievable commitment of resources.

However, development allowed under the Proposed Plan would not necessarily result in the inefficient or wasteful use of resources. Compliance with all applicable building codes, as well as

existing and Proposed Plan policies and standard conservation features would ensure that natural resources are conserved to the maximum extent feasible. It is possible that new technologies or systems will emerge, or become more cost-effective or user-friendly, to further reduce the reliance upon non-renewable natural resources. Nonetheless, future activities related to implementation of the Proposed Plan could result in the irretrievable commitment of nonrenewable energy resources, primarily in the form of fossil fuels (including fuel oil), natural gas, and gasoline for automobiles and construction equipment.

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6 List of Preparers

A list of contributing City staff and consultant team members, their titles, and affiliations, is provided below.

Union City

- Joan Malloy, City Manager
- Mark Evanoff, Deputy City Manager
- Marilou Ayupan, Public Works Director
- Carmela Campbell, Economic and Community Development Director
- Derek Farmer, Planning Manager
- Farooq Azim, City Engineer
- Andy Block, Environmental Programs Manager
- Aaron Welch, Consulting Planner

Consultants

Dyett and Bhatia

- Andrew Hill, Principal
- Clare Kucera, Planner
- Hazel O'Neil, Assistant Planner / Graphic Designer
- Gina Kotos, Assistant Planner
- Gabriella Folino, Senior Urban Designer
- Julie Ramsey, Graphic Designer

ICF

- John Cook – Senior Reviewer
- Jessica Viramontes – Senior Reviewer

- Katherine Carpenter - Biologist
- Amy Poopatanapong – Biologist
- Arin Phillips – Biologist
- Devan Atteberry – Alternatives
- Mario Barrerra – Hazard and Hazardous Materials
- Cory Matsui – Air Quality, GHG
- Blake Barroso – Air Quality, GHG
- Jennifer Wildt – Archeologist
- Tait Elder – Archeologist
- Eleanor Cox – Historic
- Katrina Sukola – Hydrologist
- Claudia Watts - Hydrologist
- Diana Roberts – Geologist and Paleontologist
- Patrick Maley – Geologist
- Jesika Allen – Geographic Information Systems Mapping

Charles Salter Associates

- Jeremy Decker, PE, Vice President

Fehr & Peers

- Sam Tabibnia, Traffic Engineer

APPENDICES

LIST OF APPENDICES

Appendix A: Notice of Preparation and Comment Letters

Appendix B: Air Quality and Greenhouse Gas Modeling Materials

Appendix C: Energy Quantification

Appendix D: Special Status Species

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Appendix H: Cultural Resource Materials

APPENDIX A: NOTICE OF PREPARATION
AND COMMENT LETTERS

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NOTICE OF PREPARATION
of a Draft Environmental Impact Report for the
Union City Station District Specific Plan

Date: January 26, 2021

To: Reviewing Agencies, Interested Parties, and Organizations

Project Title: Union City Station District Specific Plan

Comment Period: January 26, 2021 to March 6, 2021

Scoping Meeting: Thursday, February 11, 2021 at 6:00 PM PST
Zoom Registration Link:
https://us02web.zoom.us/webinar/register/WN_JnTiKvPqQDur7Ny3nZOulQ

Location: This Union City Station District Specific Plan Area is a 471-acre area surrounding the Union City Intermodal Station, which includes the Union City BART station. See Figure 1, attached.

Lead Agency: City of Union City

Contact: Carmela Campbell, AICP
Economic and Community Development Director
City of Union City
34009 Alvarado-Niles Road
Union City, CA 94587
carmelac@unioncity.org
(510) 675-5316

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 responsible, trustee, and federal 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 other interested parties to provide the City comments on environmental issues they see as being germane to the EIR.

PROJECT DESCRIPTION

The Station District Specific Plan (SDSP) is intended to guide future development of an approximately 470-acre Planning Area around the Union City BART Station. Public, institutional and civic uses (41.1%) are the most prominent existing land uses in the Planning Area, followed by industrial uses (13.8%), residential uses (9.9%), and vacant land (9.6%). Union City Station District Priority Development Area Profile, April 2020, outlines in depth existing conditions in the Planning Area, and is accessible at <https://www.unioncity.org/DocumentCenter/View/3702/PDA-Profile>

Union City has had BART service since the system's inception in 1976. In 1994, the City adopted the Decoto Industrial Park Study Area Specific Plan for a 440-acre area centered around the BART station and extending northeast to encompass the Decoto Industrial Park; this plan has been amended several times since. The Station District Specific Plan will replace the DIPSA Specific Plan.

The Union City 2040 General Plan adopted in December 2019 calls for Station District to continue evolving into a higher intensity, walkable, transit-oriented district. Consistent with the General Plan, the SDSP—currently in preparation—envisions the area to contain a mix of residential, employment, retail, and civic uses, complemented by engaging and attractive public space. These uses will be distributed, mixed, and focused in different subareas throughout the Station District, as identified in the General Plan. The SDSP will also aim to enhance multimodal connectivity, in which getting around by walking, biking, and transit is convenient and enjoyable.

The project team has developed a set of planning considerations for each subarea of the Specific Plan. The subareas are consistent with those identified in the General Plan, with a small number of refinements to subarea boundaries. Subarea boundaries are shown in Figure 2. These subareas are: The Core, Station East, Marketplace, Gateway, and Civic Center. For more information visit the project website. <https://www.unioncity.org/422/StationDistrictSP>

PROBABLE ENVIRONMENTAL EFFECTS AND SCOPE OF THE EIR

The EIR for the Union City Station District Specific Plan will be a Program EIR and describe existing environmental resources and current conditions at the project site and surrounding area, evaluate the environmental impacts of implementing the project, and identify feasible mitigation measures that may lessen or avoid adverse environmental impacts. The analysis will focus on the reasonably foreseeable direct and indirect physical environmental effects that could result from implementation of the project.

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
- Noise and Vibration
- Population and Housing
- Public Services, Recreation
- Tribal Cultural Resources
- Utilities and Service Systems
- Transportation and Traffic

There is reasonable potential that the project would result in less-than-significant environmental effects related to Aesthetics and Agriculture and Forestry Resources; thus, it is anticipated that these topics will be discussed in the **Less than Significant Impacts’ chapter in the EIR.** There are no known Mineral Resources or Wildfire hazards in the Planning Area; thus, these topics will be excluded from 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 March 6, 2021. 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

SCOPING MEETING

To facilitate responses to the NOP, a public scoping meeting has been scheduled and will be held via Zoom at the date and time and through the link provided on the first page of this NOP. Verbal comments regarding the scope of the proposed EIR will be accepted at the meeting. Written comments can be mailed or emailed to the above-mentioned address, addressed to Carmela Campbell, before the close of the NOP public comment period.

Please contact Carmela Campbell at carmelac@unioncity.org with any questions regarding this notice or the scoping meeting.

Figure 1: Citywide Context

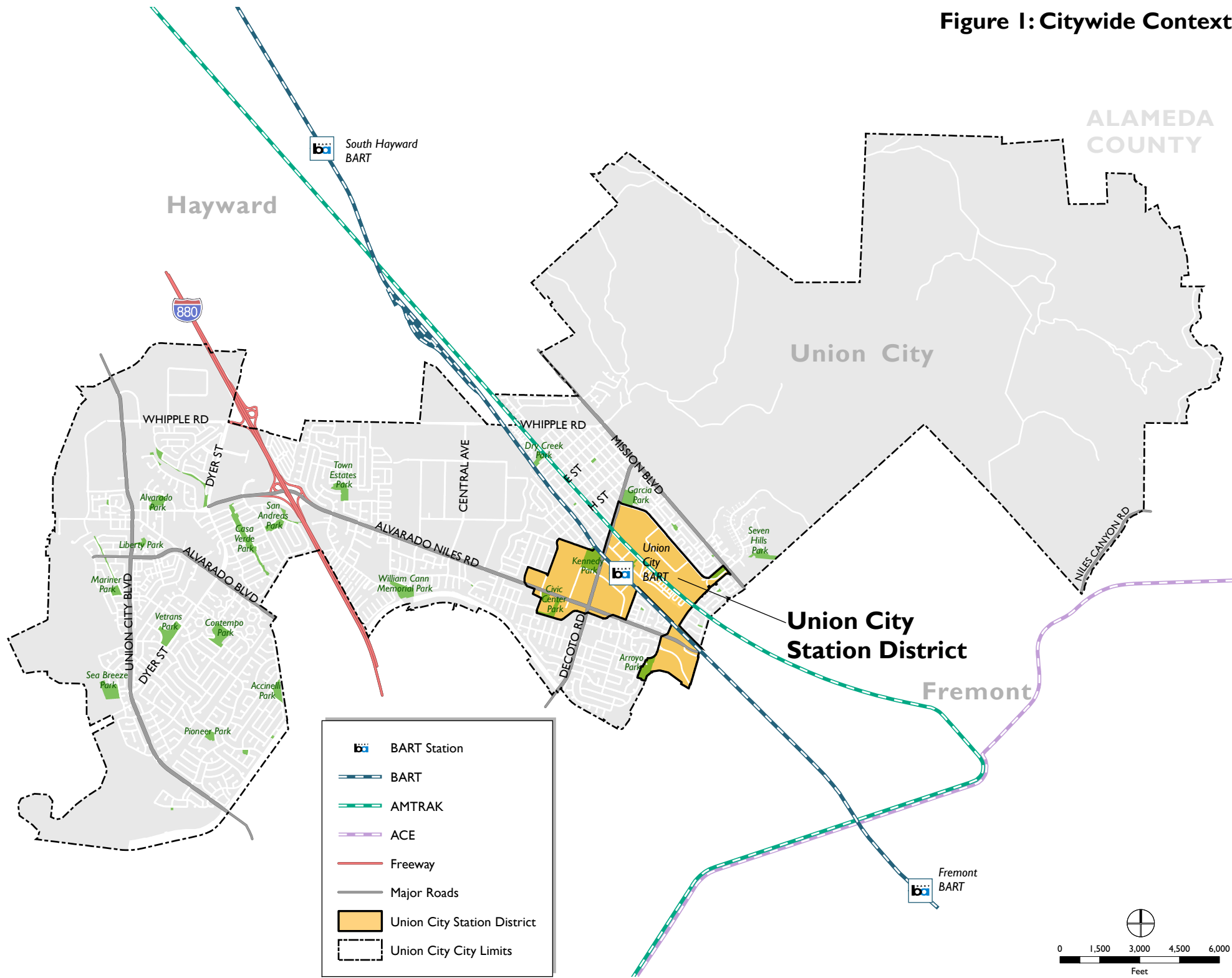
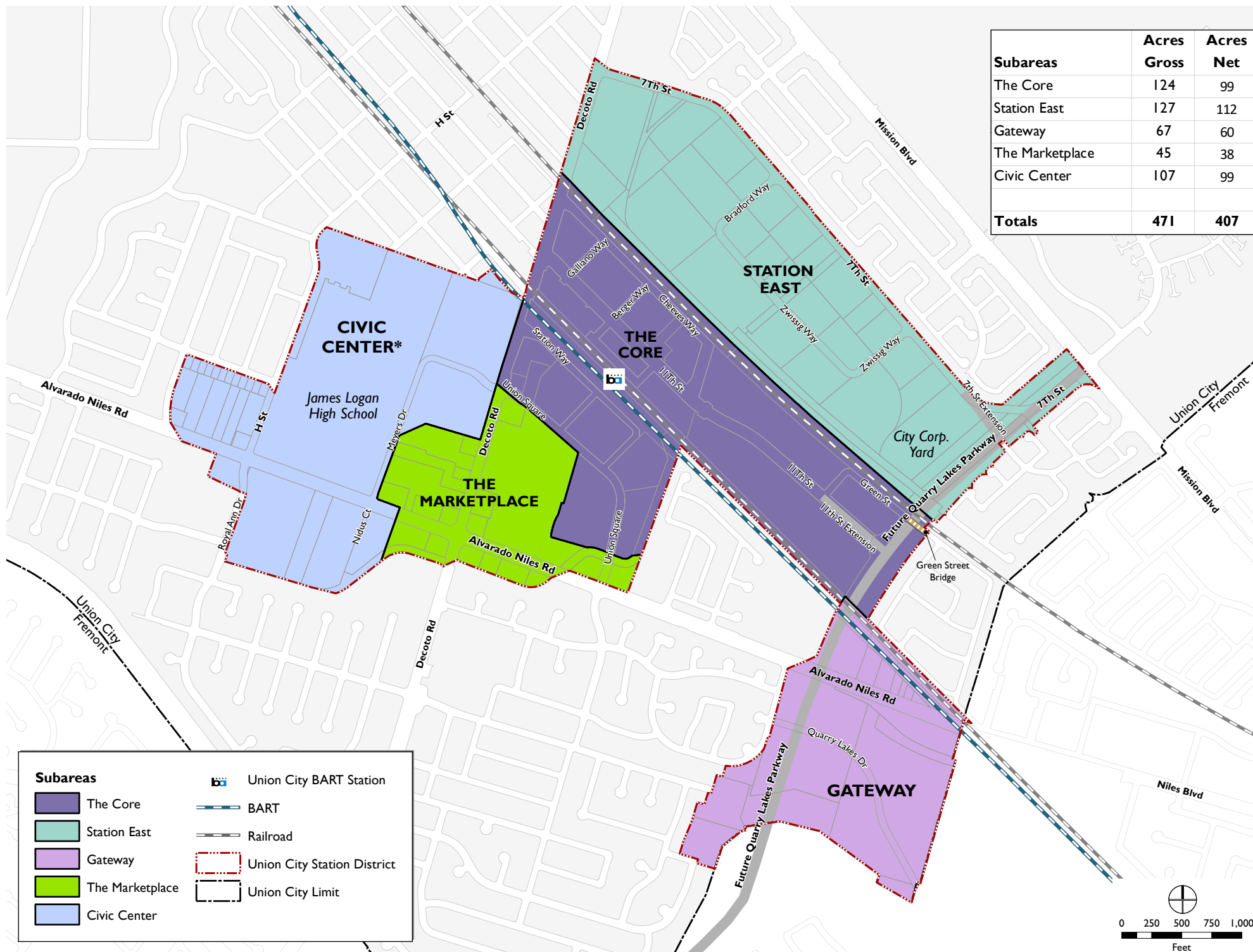


Figure 2: Subareas

Subareas	Acres	Acres
	Gross	Net
The Core	124	99
Station East	127	112
Gateway	67	60
The Marketplace	45	38
Civic Center	107	99
Totals	471	407



Source: City of Union City, 2019; Alameda County GIS, 2019.

Union City SDSP NOP Responses Tracking Matrix - CEQA Comments

Number	Date	Agency/ Individual	Name	Contact Information	Subject	Specific Plan/EIR
AGENCIES						
A1	1/27/21	Agency	NAHC	1550 Harbor Blvd, Suite 100, West Sacramento, CA 95691; nancy.gonzalez-lopez@nahc.ca.gov, nahc@nahc.ca.gov; (916) 373-3710	AB 52, SB 18	Both
A2	3/4/21	Agency	Caltrans	Mark Leong, Laurel Sears; laurel.sears@dot.ca.gov; LDIGR-D4@dot.ca.gov; P.O. BOX 23660, MS-10D Oakland, CA 94623-0660; (510) 286-5528	Transportation analysis, TDM program	Both
A3	3/4/21	Agency	Alameda County Transportation Commission	Cathleen Sullivan, Chris Marks; (510) 208-7453; 1111 Broadway, Suite 800, Oakland, CA 94607	Transportation analysis, TDM program, mitigation measures	Both
A4	3/5/21	Agency	City of Fremont	Bill Roth, (510) 494-4450, broth@fremont.gov; Connie Wang, (510) 494-4782, cwong@fremont.gov; Matthew Bomberg, 510-494-4766, MBomberg@fremont.gov; Aleksandr Zabyszny, 510-494-4796, AZabyszny@fremont.gov; 39550 Liberty St., Fremont, CA 94538	Compatibility with Decoto Corridor Complete Streets Plan, transportation analysis, bicycle and pedestrian access to transit, regional trail connections, hazardous materials, contaminated soils	Both
A5	3/5/21	Agency	Alameda County Water District	Laura Hidas Laura.Hidas@acwd.com, Ed Stevenson Ed.Stevenson@acwd.com, Juniet Rotter Juniet.Rotter@acwd.com, Michelle Myers Michelle.Myers@acwd.com, Thomas Niesar Thomas.Niesar@acwd.com, Leonard Ash Leonard.Ash@acwd.com; (510) 668-4200; 43885 South Grimmer Blvd, Fremont, CA 94538	Groundwater quality, hazardous materials, surface water quality and runoff, water supply, utilities and service systems	EIR
COMMUNITY ORGANIZATIONS/INDIVIDUALS						
B1	2/3/21	Organization	Friends of Save the Union City Hills	unioncityhills@gmail.com , liz4bart@gmail.com	Transportation, agricultural conservation, biological resources protection, wildfire, climate change, pollution, noise	Both
B2	2/11/21	Individual	Gerald Cauthen	cautn1@aol.com, (510) 208-5441	Agri-hood concept for Gateway site, chemicals from agriculture	Both
B4	2/11/21	Individual	Elizabeth Ames, Friends of Save the Union City Hills	unioncityhills@gmail.com , liz4bart@gmail.com	Traffic, biological resources conservation, agricultural conservation, Alternatives	Both
B5	2/11/21	Individual	Jonathan (no last name)		Development on Restoration Site	EIR
B6	2/11/21	Individual	Gerald Cauthen	cautn1@aol.com, (510) 208-5441	Transportation, transit, TDM strategies	Both
B7	2/11/21	Individual	Elizabeth Ames	unioncityhills@gmail.com , liz4bart@gmail.com	Gateway Alternatives, agricultural resources, biological resources, historic resources, parkland	Both
B8	2/11/21	Individual	Elizabeth Ames	unioncityhills@gmail.com , liz4bart@gmail.com	Marketplace Alternatives, housing	Both
B9	2/11/21	Individual	Elizabeth Ames	unioncityhills@gmail.com , liz4bart@gmail.com	Conservation measures, climate change, liquefaction	Both
B10	2/11/21	Individual	Elizabeth Ames	unioncityhills@gmail.com , liz4bart@gmail.com	Water conservation measures, groundwater	EIR
B11	2/11/21	Individual	Elizabeth Ames	unioncityhills@gmail.com , liz4bart@gmail.com	Riparian corridors, agricultural resources	Both
B12	2/11/21	Individual	Elizabeth Ames	unioncityhills@gmail.com , liz4bart@gmail.com	Alternatives, traffic	Both
B17	2/11/21	Individual	Glenn Kirby		Circulation system, traffic	Both
B18	2/11/21	Individual	Elizabeth Ames	unioncityhills@gmail.com , liz4bart@gmail.com	Alternatives, Quarry Lakes parkway, housing	Both
B20	2/11/21	Individual	Elizabeth Ames	unioncityhills@gmail.com , liz4bart@gmail.com	Jobs, traffic, Alternatives	Both
B21	2/11/21	Individual	Elizabeth Ames	unioncityhills@gmail.com , liz4bart@gmail.com	Gateway Alternatives, transportation	Both
B22	2/11/21	Individual	Elizabeth Ames	unioncityhills@gmail.com , liz4bart@gmail.com	Water conservation, climate change	Both
B23	2/24/21	Organization	Bay Area Transportation Working Group	BATWGnewsletter@gmail.com, cautn1@aol.com, https://batwgblog.com/2021/02/18/union-citys-station-specific-plan-transit-oriented-in-name-only/#more-3417	Valley Link, Alternatives, transportation analysis (consideration of non-commute trips in VMT analysis), impacts of Quarry Lake Project, walkability/bikability, transit service, transportation measures, non-residential development	Both
B24	3/3/21	Individual	Sherman Lewis	510-538-3692, sherman@csuhayward.us	Traffic, transit, historic resources, open space conservation, agricultural resources, financing	Both
B25	3/5/21	Individual	Sherman Lewis	510-538-3692, sherman@csuhayward.us	Traffic, biological resources conservation, agricultural conservation, historic resources	Both

Union City SDSP NOP Responses Tracking Matrix - CEQA Comments

Number	Date	Agency/ Individual	Name	Contact Information	Subject	Specific Plan/EIR
B27	3/5/21	Individual	Sherman Lewis	510-538-3692, sherman@csu Hayward.us	Traffic, noise, open space protection, walkability, parking	Both
B28	3/5/21	Individual	Renee Crawford	rlcinca@yahoo.com	Quarry Lakes Parkway	Both
B29	3/5/21	Individual	Glauco and Maria G. Romeo	mgnicolodi@gmail.com	Quarry Lakes Parkway, traffic, public transit	Both
B30	3/5/21	Individual	David G	davidgtmp-internet@yahoo.com	Quarry Lakes Parkway, Alternatives, open space and agricultural resources	Both
B31	3/5/21	Individual	Claudette Begin, Alex Chris	claudettebegin@gmail.com, alexchris@alum.mit.edu	Quarry Lakes Parkway, traffic, walkability, open space and agricultural resources, housing	Both
B33	3/5/21	Individual	Craig Guglielmetti	cuenaguy@aol.com	Traffic, safety, open space conservation, financing, density	Both
B34	3/6/21	Individual	Amanda Yongng	amandayongng@yahoo.com	Quarry Lakes Parkway, open space and agricultural resources	Both
B35	3/6/21	Individual	Thomas Browne	tw.browne@att.net	Quarry Lakes Parkway, traffic, parkland	Both
B36	3/6/21	Individual	Jason Flanders	jrf@atalawgroup.com; (916) 202-3018; 4030 Martin Luther King Jr. Way, Oakland, CA 94611	Quarry Lakes Parkway, traffic analysis, transportation mitigation measures, Alternatives	Both
B37	3/6/21	Individual	Elaine Ames	ecames7@aol.com	Drought, climate change, historic resources, agricultural resources, Quarry Lakes Parkway	Both
B38	3/6/21	Individual	Melissa Kit	melissakit289@yahoo.com	Agricultural resources, historic resources, Alternatives	Both
B39	3/6/21	Organization	Purple Lotus Temple	Kwok Choi Ng; (510) 862-2053; 35489 Lotus Pond Common, Fremont, CA 94536	Quarry Lakes Parkway, development impacts, noise, traffic, air pollution, public safety	Both
B40	3/6/21	Individual	Albert Ng, Purple Lotus Temple	aalbertng@gmail.com	Quarry Lakes Parkway, Alternatives	Both
B41	3/6/21	Individual	SzeLianWa, Purple Lotus Temple	szelianwa@gmail.com	Quarry Lakes Parkway, noise, traffic, air quality, Alternatives	Both
B42	3/6/21	Individual	Tessa Ma, Purple Lotus Temple	tessama308@gmail.com	Quarry Lakes Parkway, noise, traffic, air quality, Alternatives	Both
B43	3/6/21	Individual	Nyyan Wang, Purple Lotus Temple	lamajoyful@gmail.com	Quarry Lakes Parkway, noise, traffic, air quality, Alternatives	Both
B44	3/6/21	Individual	Lama Stella, Purple Lotus Temple	lamastella@purplelotustemple.org	Quarry Lakes Parkway, noise, traffic, air quality, Alternatives	Both
B45	3/6/21	Individual	Lama Angie, Purple Lotus Temple	lamaangie@purplelotustemple.org	Quarry Lakes Parkway, noise, traffic, air quality, Alternatives	Both
B46	3/6/21	Individual	Joe Hung, Purple Lotus Temple	ioehung26@gmail.com	Quarry Lakes Parkway, Alternatives	Both
B47	3/6/21	Individual	Lama Wushi, Purple Lotus Temple	lamawushi@gmail.com	Quarry Lakes Parkway, noise, traffic, air quality, Alternatives	Both
B48	3/6/21	Individual	Julie Chen, Purple Lotus Temple	julie.chen.ntuaa@gmail.com	Quarry Lakes Parkway, environmental impacts, aesthetics	EIR
B49	3/6/21	Individual	LianWa Fa Shi (Sylvia), Purple Lotus Temple	lienwa@hotmail.com	Quarry Lakes Parkway, Alternatives	Both
B50	3/6/21	Individual	Sze Lian Dan, Purple Lotus Temple	liandan8888@gmail.com	Quarry Lakes Parkway, noise, traffic, air quality, Alternatives	Both
B51	3/6/21	Individual	Lama Tessa, Purple Lotus Temple	lamafineheart@purplelotustemple.org	Quarry Lakes Parkway, noise, traffic, air quality, Alternatives	Both
B52	3/6/21	Individual	Acala Puti, Purple Lotus Temple	acalaputi@gmail.com	Quarry Lakes Parkway, noise, traffic, air quality, Alternatives	Both
B53	3/6/21	Individual	Stephen Ng, Purple Lotus Temple	stephen0188@gmail.com	Quarry Lakes Parkway, Alternatives	Both
B54	3/6/21	Individual	Lian Young, Purple Lotus Temple	szelianyoung911@gmail.com	Quarry Lakes Parkway, Alternatives	Both
B55	3/6/21	Individual	Hsiang-Yuan Hsia, Purple Lotus Temple	hsiangy@hotmail.com	Quarry Lakes Parkway, noise, traffic, air quality, Alternatives	Both
B56	3/6/21	Individual	Raymond Koh, Purple Lotus Temple	szelianyoung911@gmail.com	Quarry Lakes Parkway, Alternatives	Both
B57	3/6/21	Individual	Lewis Dune, Purple Lotus Temple	ioehung1001@gmail.com	Quarry Lakes Parkway, Alternatives	Both
B58	3/6/21	Individual	Lama Hao Xin, Purple Lotus Temple	plyoutube@gmail.com	Quarry Lakes Parkway, noise, traffic, air quality, Alternatives	Both
B59	3/6/21	Individual	Lama Wu Ze, Purple Lotus Temple	nn2wang@gmail.com	Quarry Lakes Parkway, noise, traffic, air quality, Alternatives	Both
B60	3/6/21	Individual	Wil (Wisdom Talk), Purple Lotus Temple	wisdomtalk108@gmail.com	Quarry Lakes Parkway, Alternatives	Both
B61	3/6/21	Individual	Golden Mother, Purple Lotus Temple	goldenmother108@gmail.com	Quarry Lakes Parkway, Alternatives	Both
B62	3/6/21	Individual	Yun-Yau Ma, Purple Lotus Temple	mayunyau@yahoo.com	Quarry Lakes Parkway, Alternatives	Both
B63	3/6/21	Individual	Lama Raymond, Purple Lotus Temple	SzeLianYoung@hotmail.com	Quarry Lakes Parkway, Alternatives	Both

Union City SDSP NOP Responses Tracking Matrix - CEQA Comments

Number	Date	Agency/ Individual	Name	Contact Information	Subject	Specific Plan/EIR
B64	3/6/21	Individual	Lama Peace, Purple Lotus Temple	lamapeace@purplelotustemple.org	Quarry Lakes Parkway, noise, traffic, air quality, Alternatives	Both
B65	3/6/21	Individual	Wang Cheng En, Purple Lotus Temple	wangchengen88@yahoo.com	Quarry Lakes Parkway, Alternatives	Both
B66	3/6/21	Individual	Macy Wang, Purple Lotus Temple	liansen3137@gmail.com	Quarry Lakes Parkway, Alternatives	Both
B67	3/6/21	Individual	Lama Jean, Purple Lotus Temple	lama jean@purplelotustemple.org	Quarry Lakes Parkway, noise, traffic, air quality, Alternatives	Both
B68	3/6/21	Individual	Lian Jin Tw, Purple Lotus Temple	lianjintw@gmail.com	Quarry Lakes Parkway, Alternatives	Both
B69	3/6/21	Individual	Gina Pacaldo	gpacaldo@nhusd.k12.ca.us, (510) 476-2770 Ext. 60819	Quarry Lakes Parkway, air pollution, noise, carbon sequestration, agricultural resources, healthy community, housing affordability, energy efficiency, aesthetics	Both
B70	3/6/21	Organization	Save Our Hills	www.saveunionctyhills.com	Quarry Lakes Parkway, Alternatives, climate change, agricultural resources, historic resources, biological resources and riparian habitat, water resources, regional traffic analysis, VMT, project financing, transportation, multi-modal transportation options	Both
B71	3/7/21	Individual	Ilu Gwawa, Purple Lotus Temple	ilugwawa@gmail.com	Quarry Lakes Parkway, Alternatives	Both
B72	3/7/21	Individual	X G, Purple Lotus Temple	zzxbgg@gmail.com	Quarry Lakes Parkway, Alternatives	Both
B73	3/7/21	Individual	葫蘆, Purple Lotus Temple	tvwind@gmail.com	Quarry Lakes Parkway, Alternatives	Both
B74	3/7/21	Individual	Gooiinn, Purple Lotus Temple	gooiinn@gmail.com	Quarry Lakes Parkway, Alternatives	Both
B75	3/7/21	Individual	Lianchun Fashi, Purple Lotus Temple	lian chunfashi@gmail.com	Quarry Lakes Parkway, Alternatives	Both
B76	3/8/21	Individual	Marcia Pando	anothermedicinewheel@gmail.com	Parkland, agricultural resources, open space conservation, historic resources, climate change, transportation, Alternatives	Both
B77	3/8/21	Individual	Marcia Ramirez	chicanaherstory@yahoo.com	Air quality, wildfire, open space conservation, hillside development	Both
B78	3/8/21	Individual	John Mathieu	mathieujohn@hotmail.com, (818) 414-5191	Natural resources, air pollution, environmental analysis	EIR
B79	3/8/21	Individual	Susan Moss	1luckyruckus1@gmail.com	Transportation, walkability/bikability, agricultural resources, historic resources	Both
B80	3/8/21	Individual	Michelle Powell	map117@comcast.net	Traffic, agricultural resources, historic resources, open space conservation, parkland	Both
B81	3/8/21	Individual	Lupe St. Denis	lu4tahoe@aol.com	Traffic, historic resources	Both
B83	3/8/21	Individual	Deb Mathieu	mathieudeb1@gmail.com	Agricultural resources, open space conservation, hillside development	Both
B84	3/8/21	Individual	Amos Picker	apicker1000@gmail.com	Open space conservation, housing	Both
B85	3/9/21	Individual	Marita Antonio	marita.antonio7@gmail.com	Quarry Lakes Parkway, Alternatives, agricultural resources, historic resources, parkland, greenhouse gases, traffic study including impacts of Highway 84 realignment	Both
B86	3/10/21	Individual	Kyle Shanks	kyleshanks@yahoo.com	Open space, agricultural resources, Decato development	Both

Union City SDSP NOP Responses Tracking Matrix - Plan Comments

Number	Date	Agency/ Individual	Name	Contact Information	Subject	Specific Plan/EIR
AGENCIES						
A1	1/27/21	Agency	NAHC	1550 Harbor Blvd, Suite 100, West Sacramento, CA 95691; nancy.gonzalez-lopez@nahc.ca.gov, nahc@nahc.ca.gov; (916) 373-3710	AB 52, SB 18	Both
A2	3/4/21	Agency	Caltrans	Mark Leong, Laurel Sears; laurel.sears@dot.ca.gov; LDIGR-D4@dot.ca.gov; P.O. BOX 23660, MS-10D Oakland, CA 94623-0660; (510) 286-5528	Transportation analysis, TDM program	Both
A3	3/4/21	Agency	Alameda County Transportation Commission	Cathleen Sullivan, Chris Marks; (510) 208-7453; 1111 Broadway, Suite 800, Oakland, CA 94607	Transportation analysis, TDM program, mitigation measures	Both
A4	3/5/21	Agency	City of Fremont	Bill Roth, (510) 494-4450, broth@fremont.gov; Connie Wang, (510) 494-4782, cwong@fremont.gov; Matthew Bomberg, 510-494-4766, MBomberg@fremont.gov; Aleksandr Zabysny, 510-494-4796, AZabysny@fremont.gov; 39550 Liberty St., Fremont, CA 94538	Compatibility with Decoto Corridor Complete Streets Plan, transportation analysis, bicycle and pedestrian access to transit, regional trail connections, hazardous materials, contaminated soils	Both
A5	3/5/21	Agency	Alameda County Water District	Laura Hidas Laura.Hidas@acwd.com, Ed Stevenson Ed.Stevenson@acwd.com, Juniet Rotter Juniet.Rotter@acwd.com, Michelle Myers Michelle.Myers@acwd.com, Thomas Niesar Thomas.Niesar@acwd.com, Leonard Ash Leonard.Ash@acwd.com; (510) 668-4200; 43885 South Grimmer Blvd, Fremont, CA 94538	Groundwater quality, hazardous materials, surface water quality and runoff, water supply, utilities and service systems	EIR
INDIVIDUALS						
B1	2/3/21	Organization	Friends of Save the Union City Hills	unioncityhills@gmail.com , liz4bart@gmail.com	Transportation, agricultural conservation, biological resources protection, wildfire, climate change, pollution, noise	Both
B2	2/10/21	Individual	Gerald Cauthen	cautn1@aol.com, (510) 208-5441	Transportation, "transit-oriented" terminology	SP
B3	2/11/21	Individual	Gerald Cauthen	cautn1@aol.com, (510) 208-5441	Agri-hood concept for Gateway site, chemicals from agriculture	Both
B4	2/11/21	Individual	Elizabeth Ames, Friends of Save the Union City Hills	unioncityhills@gmail.com , liz4bart@gmail.com	Traffic, biological resources conservation, agricultural conservation, Alternatives	Both
B6	2/11/21	Individual	Gerald Cauthen	cautn1@aol.com, (510) 208-5441	Transportation, transit, TDM strategies	Both
B7	2/11/21	Individual	Elizabeth Ames	unioncityhills@gmail.com , liz4bart@gmail.com	Gateway Alternatives, agricultural resources, biological resources, historic resources, parkland	Both
B8	2/11/21	Individual	Elizabeth Ames	unioncityhills@gmail.com , liz4bart@gmail.com	Marketplace Alternatives, housing	Both
B9	2/11/21	Individual	Elizabeth Ames	unioncityhills@gmail.com , liz4bart@gmail.com	Conservation measures, climate change, liquefaction	Both
B11	2/11/21	Individual	Elizabeth Ames	unioncityhills@gmail.com , liz4bart@gmail.com	Riparian corridors, agricultural resources	Both
B12	2/11/21	Individual	Elizabeth Ames	unioncityhills@gmail.com , liz4bart@gmail.com	Alternatives, traffic	Both
B13	2/11/21	Individual	Elizabeth Ames	unioncityhills@gmail.com , liz4bart@gmail.com	Parking	SP
B14	2/11/21	Individual	Elizabeth Ames	unioncityhills@gmail.com , liz4bart@gmail.com	Agricultural resources, housing, climate change	SP
B15	2/11/21	Individual	Elizabeth Ames	unioncityhills@gmail.com , liz4bart@gmail.com	Gateway site, agricultural and biological resources	SP
B16	2/11/21	Individual	Elizabeth Ames	unioncityhills@gmail.com , liz4bart@gmail.com	Fiscal analysis of new development, roadways, and city services	SP
B17	2/11/21	Individual	Glenn Kirby		Circulation system, traffic	Both
B18	2/11/21	Individual	Elizabeth Ames	unioncityhills@gmail.com , liz4bart@gmail.com	Alternatives, Quarry Lakes parkway, housing	Both
B19	2/11/21	Individual	Chetan Angadi		Street lighting on 11th St	SP
B20	2/11/21	Individual	Elizabeth Ames	unioncityhills@gmail.com , liz4bart@gmail.com	Jobs, traffic, Alternatives	Both
B21	2/11/21	Individual	Elizabeth Ames	unioncityhills@gmail.com , liz4bart@gmail.com	Gateway Alternatives, transportation	Both
B22	2/11/21	Individual	Elizabeth Ames	unioncityhills@gmail.com , liz4bart@gmail.com	Water conservation, climate change	Both

Union City SDSP NOP Responses Tracking Matrix - Plan Comments

Number	Date	Agency/ Individual	Name	Contact Information	Subject	Specific Plan/EIR
B23	2/24/21	Organization	Bay Area Transportation Working Group	BATWGnewsletter@gmail.com, cautn1@aol.com, https://batwgblog.com/2021/02/18/union-citys-station-specific-plan-transit-oriented-in-name-only/#more-3417	Valley Link, Alternatives, transportation analysis (consideration of non-commute trips in VMT analysis), impacts of Quarry Lake Project, walkability/bikability, transit service, transportation measures, non-residential development	Both
B24	3/3/21	Individual	Sherman Lewis	510-538-3692, sherman@csuhayward.us	Traffic, transit, historic resources, open space conservation, agricultural resources, financing	Both
B25	3/5/21	Individual	Sherman Lewis	510-538-3692, sherman@csuhayward.us	Traffic, biological resources conservation, agricultural conservation, historic resources	Both
B26	3/5/21	Individual	Gerald Cauthen, Bay Area Transportation Working Group	cautn1@aol.com, (510) 208-5441	Retail and service within easy bicycling/walking distance of housing, transportation, congestion pricing	SP
B27	3/5/21	Individual	Sherman Lewis	510-538-3692, sherman@csuhayward.us	Traffic, noise, open space protection, walkability, parking	Both
B28	3/5/21	Individual	Renee Crawford	rlcinca@yahoo.com	Quarry Lakes Parkway	Both
B29	3/5/21	Individual	Glauco and Maria G. Romeo	mgnicolodi@gmail.com	Quarry Lakes Parkway, traffic, public transit	Both
B30	3/5/21	Individual	David G	davidgtmp-internet@yahoo.com	Quarry Lakes Parkway, Alternatives, open space and agricultural resources	Both
B31	3/5/21	Individual	Claudette Begin, Alex Chris	claudettebegin@gmail.com, alexchis@alum.mit.edu	Quarry Lakes Parkway, traffic, walkability, open space and agricultural resources, housing	Both
B32	3/5/21	Individual	Mary Spoon	gardengreen1@yahoo.com	Quarry Lakes Parkway, open space and agricultural resources	SP
B33	3/5/21	Individual	Craig Guglielmetti	cuencaguy@aol.com	Traffic, safety, open space conservation, financing, density	Both
B34	3/6/21	Individual	Amanda Yongng	amandayongng@yahoo.com	Quarry Lakes Parkway, open space and agricultural resources	Both
B35	3/6/21	Individual	Thomas Browne	tw.browne@att.net	Quarry Lakes Parkway, traffic, parkland	Both
B36	3/6/21	Individual	Jason Flanders	jrf@atalawgroup.com; (916) 202-3018; 4030 Martin Luther King Jr. Way, Oakland, CA 94611	Quarry Lakes Parkway, traffic analysis, transportation mitigation measures, Alternatives	Both
B37	3/6/21	Individual	Elaine Ames	ecames7@aol.com	Drought, climate change, historic resources, agricultural resources, Quarry Lakes Parkway	Both
B38	3/6/21	Individual	Melissa Kit	melissakit289@yahoo.com	Agricultural resources, historic resources, Alternatives	Both
B39	3/6/21	Organization	Purple Lotus Temple	Kwok Choi Ng; (510) 862-2053; 35489 Lotus Pond Common, Fremont, CA 94536	Quarry Lakes Parkway, development impacts, noise, traffic, air pollution, public safety	Both
B40	3/6/21	Individual	Albert Ng, Purple Lotus Temple	aalbertng@gmail.com	Quarry Lakes Parkway, Alternatives	Both
B41	3/6/21	Individual	SzeLianWa, Purple Lotus Temple	szelianwa@gmail.com	Quarry Lakes Parkway, noise, traffic, air quality, Alternatives	Both
B42	3/6/21	Individual	Tessa Ma, Purple Lotus Temple	tessama308@gmail.com	Quarry Lakes Parkway, noise, traffic, air quality, Alternatives	Both
B43	3/6/21	Individual	Nyyan Wang, Purple Lotus Temple	lamajoyful@gmail.com	Quarry Lakes Parkway, noise, traffic, air quality, Alternatives	Both
B44	3/6/21	Individual	Lama Stella, Purple Lotus Temple	lamastella@purplelotustemple.org	Quarry Lakes Parkway, noise, traffic, air quality, Alternatives	Both
B45	3/6/21	Individual	Lama Angie, Purple Lotus Temple	lamaangie@purplelotustemple.org	Quarry Lakes Parkway, noise, traffic, air quality, Alternatives	Both
B46	3/6/21	Individual	Joe Hung, Purple Lotus Temple	joehung26@gmail.com	Quarry Lakes Parkway, Alternatives	Both
B47	3/6/21	Individual	Lama Wushi, Purple Lotus Temple	lamawushi@gmail.com	Quarry Lakes Parkway, noise, traffic, air quality, Alternatives	Both
B49	3/6/21	Individual	LianWa Fa Shi (Sylvia), Purple Lotus Temple	lienwa@hotmail.com	Quarry Lakes Parkway, Alternatives	Both
B50	3/6/21	Individual	Sze Lian Dan, Purple Lotus Temple	liandan8888@gmail.com	Quarry Lakes Parkway, noise, traffic, air quality, Alternatives	Both
B51	3/6/21	Individual	Lama Tessa, Purple Lotus Temple	lamafineheart@purplelotustemple.org	Quarry Lakes Parkway, noise, traffic, air quality, Alternatives	Both
B52	3/6/21	Individual	Acala Puti, Purple Lotus Temple	acalaputi@gmail.com	Quarry Lakes Parkway, noise, traffic, air quality, Alternatives	Both
B53	3/6/21	Individual	Stephen Ng, Purple Lotus Temple	stephen0188@gmail.com	Quarry Lakes Parkway, Alternatives	Both
B54	3/6/21	Individual	Lian Young, Purple Lotus Temple	szelianyoung911@gmail.com	Quarry Lakes Parkway, Alternatives	Both
B55	3/6/21	Individual	Hsiang-Yuan Hsia, Purple Lotus Temple	hsiangy@hotmail.com	Quarry Lakes Parkway, noise, traffic, air quality, Alternatives	Both
B56	3/6/21	Individual	Raymond Koh, Purple Lotus Temple	szelianyoung911@gmail.com	Quarry Lakes Parkway, Alternatives	Both

Union City SDSP NOP Responses Tracking Matrix - Plan Comments

Number	Date	Agency/ Individual	Name	Contact Information	Subject	Specific Plan/EIR
B57	3/6/21	Individual	Lewis Dune, Purple Lotus Temple	joehung1001@gmail.com	Quarry Lakes Parkway, Alternatives	Both
B58	3/6/21	Individual	Lama Hao Xin, Purple Lotus Temple	pltvoutube@gmail.com	Quarry Lakes Parkway, noise, traffic, air quality, Alternatives	Both
B59	3/6/21	Individual	Lama Wu Ze, Purple Lotus Temple	nn2wang@gmail.com	Quarry Lakes Parkway, noise, traffic, air quality, Alternatives	Both
B60	3/6/21	Individual	Wil (Wisdom Talk), Purple Lotus Temple	wisdomtalk108@gmail.com	Quarry Lakes Parkway, Alternatives	Both
B61	3/6/21	Individual	Golden Mother, Purple Lotus Temple	goldenmother108@gmail.com	Quarry Lakes Parkway, Alternatives	Both
B62	3/6/21	Individual	Yun-Yau Ma, Purple Lotus Temple	mavunvau@yahoo.com	Quarry Lakes Parkway, Alternatives	Both
B63	3/6/21	Individual	Lama Raymond, Purple Lotus Temple	SzeLianYoung@hotmail.com	Quarry Lakes Parkway, Alternatives	Both
B64	3/6/21	Individual	Lama Peace, Purple Lotus Temple	lamapeace@purplelotustemple.org	Quarry Lakes Parkway, noise, traffic, air quality, Alternatives	Both
B65	3/6/21	Individual	Wang Cheng En, Purple Lotus Temple	wangchengen88@yahoo.com	Quarry Lakes Parkway, Alternatives	Both
B66	3/6/21	Individual	Macy Wang, Purple Lotus Temple	liansen3137@gmail.com	Quarry Lakes Parkway, Alternatives	Both
B67	3/6/21	Individual	Lama Jean, Purple Lotus Temple	lamajeane@purplelotustemple.org	Quarry Lakes Parkway, noise, traffic, air quality, Alternatives	Both
B68	3/6/21	Individual	Lian Jin Tw, Purple Lotus Temple	lianiintw@gmail.com	Quarry Lakes Parkway, Alternatives	Both
B69	3/6/21	Individual	Gina Pacaldo	gpacaldo@nhusd.k12.ca.us, (510) 476-2770 Ext. 60819	Quarry Lakes Parkway, air pollution, noise, carbon sequestration, agricultural resources, healthy community, housing affordability, energy efficiency, aesthetics	Both
B70	3/6/21	Organization	Save Our Hills	www.saveunioncityhills.com	Quarry Lakes Parkway, Alternatives, climate change, agricultural resources, historic resources, biological resources and riparian habitat, water resources, regional traffic analysis, VMT, project financing, transportation, multi-modal transportation options	Both
B71	3/7/21	Individual	Ilu Gwawa, Purple Lotus Temple	ilugwawa@gmail.com	Quarry Lakes Parkway, Alternatives	Both
B72	3/7/21	Individual	X G, Purple Lotus Temple	zzxbgg@gmail.com	Quarry Lakes Parkway, Alternatives	Both
B73	3/7/21	Individual	葫蘆, Purple Lotus Temple	tlwind@gmail.com	Quarry Lakes Parkway, Alternatives	Both
B74	3/7/21	Individual	Gooiinn, Purple Lotus Temple	gooiinn@gmail.com	Quarry Lakes Parkway, Alternatives	Both
B75	3/7/21	Individual	Lianchun Fashi, Purple Lotus Temple	lianchnfashi@gmail.com	Quarry Lakes Parkway, Alternatives	Both
B76	3/8/21	Individual	Marcia Pando	anothermedicinewheel@gmail.com	Parkland, agricultural resources, open space conservation, historic resources, climate change, transportation, Alternatives	Both
B77	3/8/21	Individual	Marcia Ramirez	chicanaherstory@yahoo.com	Air quality, wildfire, open space conservation, hillside development	Both
B78	3/8/21	Individual	John Mathieu	mathieujohn@hotmail.com, (818) 414-5191	Natural resources, air pollution, environmental analysis	EIR
B79	3/8/21	Individual	Susan Moss	1luckyruckus1@gmail.com	Transportation, walkability/bikability, agricultural resources, historic resources	Both
B80	3/8/21	Individual	Michelle Powell	map117@comcast.net	Traffic, agricultural resources, historic resources, open space conservation, parkland	Both
B81	3/8/21	Individual	Lupe St. Denis	lu4tahoe@aol.com	Traffic, historic resources	Both
B82	3/8/21	Individual	James and Debbie Orozco	uconline@pacbell.net	Financing, open space conservation, agricultural resources	SP
B83	3/8/21	Individual	Deb Mathieu	mathieudeb1@gmail.com	Agricultural resources, open space conservation, hillside development	Both
B84	3/8/21	Individual	Amos Picker	apicker1000@gmail.com	Open space conservation, housing	Both
B85	3/9/21	Individual	Marita Antonio	marita.antonio7@gmail.com	Quarry Lakes Parkway, Alternatives, agricultural resources, historic resources, parkland, greenhouse gases, traffic study including impacts of Highway 84 realignment	Both

Union City SDSP NOP Responses Tracking Matrix - All Comments

Number	Date	Agency/ Individual	Name	Contact Information	Subject	Specific Plan/EIR
AGENCIES						
A1	1/27/21	Agency	NAHC	1550 Harbor Blvd, Suite 100, West Sacramento, CA 95691; nancy.gonzalez-lopez@nahc.ca.gov, nahc@nahc.ca.gov; (916) 373-3710	AB 52, SB 18	Both
A2	3/4/21	Agency	Caltrans	Mark Leong, Laurel Sears; laurel.sears@dot.ca.gov; LDIGR-D4@dot.ca.gov; P.O. BOX 23660, MS-10D Oakland, CA 94623-0660; (510) 286-5528	Transportation analysis, TDM program	Both
A3	3/4/21	Agency	Alameda County Transportation Commission	Cathleen Sullivan, Chris Marks; (510) 208-7453; 1111 Broadway, Suite 800, Oakland, CA 94607	Transportation analysis, TDM program, mitigation measures	Both
A4	3/5/21	Agency	City of Fremont	Bill Roth, (510) 494-4450, broth@fremont.gov; Connie Wang, (510) 494-4782, cwong@fremont.gov; Matthew Bomberg, 510-494-4766, MBomberg@fremont.gov; Aleksandr Zabysny, 510-494-4796, AZabysny@fremont.gov; 39550 Liberty St., Fremont, CA 94538	Compatibility with Decoto Corridor Complete Streets Plan, transportation analysis, bicycle and pedestrian access to transit, regional trail connections, hazardous materials, contaminated soils	Both
A5	3/5/21	Agency	Alameda County Water District	Laura Hidas Laura.Hidas@acwd.com, Ed Stevenson Ed.Stevenson@acwd.com, Juniet Rotter Juniet.Rotter@acwd.com, Michelle Myers Michelle.Myers@acwd.com, Thomas Niesar Thomas.Niesar@acwd.com, Leonard Ash Leonard.Ash@acwd.com; (510) 668-4200; 43885 South Grimmer Blvd, Fremont, CA 94538	Groundwater quality, hazardous materials, surface water quality and runoff, water supply, utilities and service systems	EIR
INDIVIDUALS						
B1	2/3/21	Organization	Friends of Save the Union City Hills	unioncityhills@gmail.com , liz4bart@gmail.com	Transportation, agricultural conservation, biological resources protection, wildfire, climate change, pollution, noise	Both
B2	2/10/21	Individual	Gerald Cauthen	cautn1@aol.com, (510) 208-5441	Transportation, "transit-oriented" terminology	SP
B3	2/11/21	Individual	Gerald Cauthen	cautn1@aol.com, (510) 208-5441	Agri-hood concept for Gateway site, chemicals from agriculture	Both
B4	2/11/21	Individual	Elizabeth Ames, Friends of Save the Union City Hills	unioncityhills@gmail.com , liz4bart@gmail.com	Traffic, biological resources conservation, agricultural conservation, Alternatives	Both
B5	2/11/21	Individual	Jonathan (no last name)		Development on Restoration Site	EIR
B6	2/11/21	Individual	Gerald Cauthen	cautn1@aol.com, (510) 208-5441	Transportation, transit, TDM strategies	Both
B7	2/11/21	Individual	Elizabeth Ames	unioncityhills@gmail.com , liz4bart@gmail.com	Gateway Alternatives, agricultural resources, biological resources, historic resources, parkland	Both
B8	2/11/21	Individual	Elizabeth Ames	unioncityhills@gmail.com , liz4bart@gmail.com	Marketplace Alternatives, housing	Both
B9	2/11/21	Individual	Elizabeth Ames	unioncityhills@gmail.com , liz4bart@gmail.com	Conservation measures, climate change, liquefaction	Both
B10	2/11/21	Individual	Elizabeth Ames	unioncityhills@gmail.com , liz4bart@gmail.com	Water conservation measures, groundwater	EIR
B11	2/11/21	Individual	Elizabeth Ames	unioncityhills@gmail.com , liz4bart@gmail.com	Riparian corridors, agricultural resources	Both
B12	2/11/21	Individual	Elizabeth Ames	unioncityhills@gmail.com , liz4bart@gmail.com	Alternatives, traffic	Both
B13	2/11/21	Individual	Elizabeth Ames	unioncityhills@gmail.com , liz4bart@gmail.com	Parking	SP
B14	2/11/21	Individual	Elizabeth Ames	unioncityhills@gmail.com , liz4bart@gmail.com	Agricultural resources, housing, climate change	SP
B15	2/11/21	Individual	Elizabeth Ames	unioncityhills@gmail.com , liz4bart@gmail.com	Gateway site, agricultural and biological resources	SP
B16	2/11/21	Individual	Elizabeth Ames	unioncityhills@gmail.com , liz4bart@gmail.com	Fiscal analysis of new development, roadways, and city services	SP
B17	2/11/21	Individual	Glenn Kirby		Circulation system, traffic	Both
B18	2/11/21	Individual	Elizabeth Ames	unioncityhills@gmail.com , liz4bart@gmail.com	Alternatives, Quarry Lakes parkway, housing	Both
B19	2/11/21	Individual	Chetan Angadi		Street lighting on 11th St	SP
B20	2/11/21	Individual	Elizabeth Ames	unioncityhills@gmail.com , liz4bart@gmail.com	Jobs, traffic, Alternatives	Both
B21	2/11/21	Individual	Elizabeth Ames	unioncityhills@gmail.com , liz4bart@gmail.com	Gateway Alternatives, transportation	Both
B22	2/11/21	Individual	Elizabeth Ames	unioncityhills@gmail.com , liz4bart@gmail.com	Water conservation, climate change	Both

Union City SDSP NOP Responses Tracking Matrix - All Comments

Number	Date	Agency/ Individual	Name	Contact Information	Subject	Specific Plan/EIR
B23	2/24/21	Organization	Gerald Cauthen, Bay Area Transportation Working Group	BATWGnewsletter@gmail.com, cautn1@aol.com, https://batwgblog.com/2021/02/18/union-citys-station-specific-plan-transit-oriented-in-name-only/#more-3417	Valley Link, Alternatives, transportation analysis (consideration of non-commute trips in VMT analysis), impacts of Quarry Lake Project, walkability/bikability, transit service, transportation measures, non-residential development	Both
B24	3/3/21	Individual	Sherman Lewis	510-538-3692, sherman@csuhayward.us	Traffic, transit, historic resources, open space conservation, agricultural resources, financing	Both
B25	3/5/21	Individual	Sherman Lewis	510-538-3692, sherman@csuhayward.us	Traffic, biological resources conservation, agricultural conservation, historic resources	Both
B26	3/5/21	Individual	Gerald Cauthen	cautn1@aol.com, (510) 208-5441	Retail and service within easy bicycling/walking distance of housing, transportation, congestion pricing	SP
B27	3/5/21	Individual	Sherman Lewis	510-538-3692, sherman@csuhayward.us	Traffic, noise, open space protection, walkability, parking	Both
B28	3/5/21	Individual	Renee Crawford	rlcinca@yahoo.com	Quarry Lakes Parkway	Both
B29	3/5/21	Individual	Glauco and Maria G. Romeo	mgnicolodi@gmail.com	Quarry Lakes Parkway, traffic, public transit	Both
B30	3/5/21	Individual	David G	davidgtmp-internet@yahoo.com	Quarry Lakes Parkway, Alternatives, open space and agricultural resources	Both
B31	3/5/21	Individual	Claudette Begin, Alex Chris	claudettebegin@gmail.com, alexchis@alum.mit.edu	Quarry Lakes Parkway, traffic, walkability, open space and agricultural resources, housing	Both
B32	3/5/21	Individual	Mary Spoon	gardengreen1@yahoo.com	Quarry Lakes Parkway, open space and agricultural resources	SP
B33	3/5/21	Individual	Craig Guglielmetti	cuencaguy@aol.com	Traffic, safety, open space conservation, financing, density	Both
B34	3/6/21	Individual	Amanda Yongng	amandayongng@yahoo.com	Quarry Lakes Parkway, open space and agricultural resources	Both
B35	3/6/21	Individual	Thomas Browne	tw.browne@att.net	Quarry Lakes Parkway, traffic, parkland	Both
B36	3/6/21	Individual	Jason Flanders	jrf@atalawgroup.com; (916) 202-3018; 4030 Martin Luther King Jr. Way, Oakland, CA 94611	Quarry Lakes Parkway, traffic analysis, transportation mitigation measures, Alternatives	Both
B37	3/6/21	Individual	Elaine Ames	ecames7@aol.com	Drought, climate change, historic resources, agricultural resources, Quarry Lakes Parkway	Both
B38	3/6/21	Individual	Melissa Kit	melissakit289@yahoo.com	Agricultural resources, historic resources, Alternatives	Both
B39	3/6/21	Organization	Purple Lotus Temple	Kwok Choi Ng; (510) 862-2053; 35489 Lotus Pond Common, Fremont, CA 94536	Quarry Lakes Parkway, development impacts, noise, traffic, air pollution, public safety	Both
B40	3/6/21	Individual	Albert Ng, Purple Lotus Temple	aalbertng@gmail.com	Quarry Lakes Parkway, Alternatives	Both
B41	3/6/21	Individual	SzeLianWa, Purple Lotus Temple	szelianwa@gmail.com	Quarry Lakes Parkway, noise, traffic, air quality, Alternatives	Both
B42	3/6/21	Individual	Tessa Ma, Purple Lotus Temple	tessama308@gmail.com	Quarry Lakes Parkway, noise, traffic, air quality, Alternatives	Both
B43	3/6/21	Individual	Nyyan Wang, Purple Lotus Temple	lamajoyful@gmail.com	Quarry Lakes Parkway, noise, traffic, air quality, Alternatives	Both
B44	3/6/21	Individual	Lama Stella, Purple Lotus Temple	lamastella@purplelotustemple.org	Quarry Lakes Parkway, noise, traffic, air quality, Alternatives	Both
B45	3/6/21	Individual	Lama Angie, Purple Lotus Temple	lamaangie@purplelotustemple.org	Quarry Lakes Parkway, noise, traffic, air quality, Alternatives	Both
B46	3/6/21	Individual	Joe Hung, Purple Lotus Temple	joehung26@gmail.com	Quarry Lakes Parkway, Alternatives	Both
B47	3/6/21	Individual	Lama Wushi, Purple Lotus Temple	lamawushi@gmail.com	Quarry Lakes Parkway, noise, traffic, air quality, Alternatives	Both
B48	3/6/21	Individual	Julie Chen, Purple Lotus Temple	julie.chen.ntuaa@gmail.com	Quarry Lakes Parkway, environmental impacts, aesthetics	EIR
B49	3/6/21	Individual	LianWa Fa Shi (Sylvia), Purple Lotus Temple	lienwa@hotmail.com	Quarry Lakes Parkway, Alternatives	Both
B50	3/6/21	Individual	Sze Lian Dan, Purple Lotus Temple	liandan8888@gmail.com	Quarry Lakes Parkway, noise, traffic, air quality, Alternatives	Both
B51	3/6/21	Individual	Lama Tessa, Purple Lotus Temple	lamafineheart@purplelotustemple.org	Quarry Lakes Parkway, noise, traffic, air quality, Alternatives	Both
B52	3/6/21	Individual	Acala Puti, Purple Lotus Temple	acalaputi@gmail.com	Quarry Lakes Parkway, noise, traffic, air quality, Alternatives	Both
B53	3/6/21	Individual	Stephen Ng, Purple Lotus Temple	stephen0188@gmail.com	Quarry Lakes Parkway, Alternatives	Both
B54	3/6/21	Individual	Lian Young, Purple Lotus Temple	szelianyoung911@gmail.com	Quarry Lakes Parkway, Alternatives	Both
B55	3/6/21	Individual	Hsiang-Yuan Hsia, Purple Lotus Temple	hsiangy@hotmail.com	Quarry Lakes Parkway, noise, traffic, air quality, Alternatives	Both

Union City SDSP NOP Responses Tracking Matrix - All Comments

Number	Date	Agency/ Individual	Name	Contact Information	Subject	Specific Plan/EIR
B56	3/6/21	Individual	Raymond Koh, Purple Lotus Temple	szelianyoung911@gmail.com	Quarry Lakes Parkway, Alternatives	Both
B57	3/6/21	Individual	Lewis Dune, Purple Lotus Temple	ioehung1001@gmail.com	Quarry Lakes Parkway, Alternatives	Both
B58	3/6/21	Individual	Lama Hao Xin, Purple Lotus Temple	pltyoutube@gmail.com	Quarry Lakes Parkway, noise, traffic, air quality, Alternatives	Both
B59	3/6/21	Individual	Lama Wu Ze, Purple Lotus Temple	nn2wang@gmail.com	Quarry Lakes Parkway, noise, traffic, air quality, Alternatives	Both
B60	3/6/21	Individual	Wil (Wisdom Talk), Purple Lotus Temple	wisdomtalk108@gmail.com	Quarry Lakes Parkway, Alternatives	Both
B61	3/6/21	Individual	Golden Mother, Purple Lotus Temple	goldenmother108@gmail.com	Quarry Lakes Parkway, Alternatives	Both
B62	3/6/21	Individual	Yun-Yau Ma, Purple Lotus Temple	mayunvau@yahoo.com	Quarry Lakes Parkway, Alternatives	Both
B63	3/6/21	Individual	Lama Raymond, Purple Lotus Temple	SzeLianYoung@hotmail.com	Quarry Lakes Parkway, Alternatives	Both
B64	3/6/21	Individual	Lama Peace, Purple Lotus Temple	lamapeace@purplelotustemple.org	Quarry Lakes Parkway, noise, traffic, air quality, Alternatives	Both
B65	3/6/21	Individual	Wang Cheng En, Purple Lotus Temple	wangchengen88@yahoo.com	Quarry Lakes Parkway, Alternatives	Both
B66	3/6/21	Individual	Macy Wang, Purple Lotus Temple	liansen3137@gmail.com	Quarry Lakes Parkway, Alternatives	Both
B67	3/6/21	Individual	Lama Jean, Purple Lotus Temple	lama jean@purplelotustemple.org	Quarry Lakes Parkway, noise, traffic, air quality, Alternatives	Both
B68	3/6/21	Individual	Lian Jin Tw, Purple Lotus Temple	lianiintw@gmail.com	Quarry Lakes Parkway, Alternatives	Both
B69	3/6/21	Individual	Gina Pacaldo	gpacaldo@nhud.k12.ca.us, (510) 476-2770 Ext. 60819	Quarry Lakes Parkway, air pollution, noise, carbon sequestration, agricultural resources, healthy community, housing affordability, energy efficiency, aesthetics	Both
B70	3/6/21	Organization	Save Our Hills	www.saveunionctyhills.com	Quarry Lakes Parkway, Alternatives, climate change, agricultural resources, historic resources, biological resources and riparian habitat, water resources, regional traffic analysis, VMT, project financing, transportation, multi-modal transportation options	Both
B71	3/7/21	Individual	Ilu Gwawa, Purple Lotus Temple	ilugwawa@gmail.com	Quarry Lakes Parkway, Alternatives	Both
B72	3/7/21	Individual	X G, Purple Lotus Temple	zxxbbgg@gmail.com	Quarry Lakes Parkway, Alternatives	Both
B73	3/7/21	Individual	葫蘆, Purple Lotus Temple	twind@gmail.com	Quarry Lakes Parkway, Alternatives	Both
B74	3/7/21	Individual	Gooiinn, Purple Lotus Temple	gooiinn@gmail.com	Quarry Lakes Parkway, Alternatives	Both
B75	3/7/21	Individual	Lianchun Fashi, Purple Lotus Temple	lian chunfashi@gmail.com	Quarry Lakes Parkway, Alternatives	Both
B76	3/8/21	Individual	Marcia Pando	anothermedicinewheel@gmail.com	Parkland, agricultural resources, open space conservation, historic resources, climate change, transportation, Alternatives	Both
B77	3/8/21	Individual	Marcia Ramirez	chicanaherstory@yahoo.com	Air quality, wildfire, open space conservation, hillside development	Both
B78	3/8/21	Individual	John Mathieu	mathieujohn@hotmail.com, (818) 414-5191	Natural resources, air pollution, environmental analysis	EIR
B79	3/8/21	Individual	Susan Moss	1luckyruckus1@gmail.com	Transportation, walkability/bikability, agricultural resources, historic resources	Both
B80	3/8/21	Individual	Michelle Powell	map117@comcast.net	Traffic, agricultural resources, historic resources, open space conservation, parkland	Both
B81	3/8/21	Individual	Lupe St. Denis	lu4tahoe@aol.com	Traffic, historic resources	Both
B82	3/8/21	Individual	James and Debbie Orozco	uconline@pacbell.net	Financing, open space conservation, agricultural resources	SP
B83	3/8/21	Individual	Deb Mathieu	mathieudeb1@gmail.com	Agricultural resources, open space conservation, hillside development	Both
B84	3/8/21	Individual	Amos Picker	apicker1000@gmail.com	Open space conservation, housing	Both
B85	3/9/21	Individual	Marita Antonio	marita.antonio7@gmail.com	Quarry Lakes Parkway, Alternatives, agricultural resources, historic resources, parkland, greenhouse gases, traffic study including impacts of Highway 84 realignment	Both



NATIVE AMERICAN HERITAGE COMMISSION

January 27, 2021

Carmela Campbell
 Union City
 34009 Alvarado-Niles Road
 Union City, CA 94587

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Re: 2021010303, Union City Station District Specific Plan Project, Alameda County

Dear Ms. Campbell:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:
 - a. A brief description of the project.
 - b. The lead agency contact information.
 - c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
 - d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subs. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).
 - a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:
 - a. Alternatives to the project.
 - b. Recommended mitigation measures.
 - c. Significant effects. (Pub. Resources Code §21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:
 - a. Type of environmental review necessary.
 - b. Significance of the tribal cultural resources.
 - c. Significance of the project's impacts on tribal cultural resources.
 - d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:
 - a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
 - b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

- 7. Conclusion of Consultation:** Consultation with a tribe shall be considered concluded when either of the following occurs:
- a.** The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
 - b.** A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).
- 8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document:** Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).
- 9. Required Consideration of Feasible Mitigation:** If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).
- 10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:**
- a.** Avoidance and preservation of the resources in place, including, but not limited to:
 - i.** Planning and construction to avoid the resources and protect the cultural and natural context.
 - ii.** Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
 - b.** Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
 - i.** Protecting the cultural character and integrity of the resource.
 - ii.** Protecting the traditional use of the resource.
 - iii.** Protecting the confidentiality of the resource.
 - c.** Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
 - d.** Protecting the resource. (Pub. Resource Code §21084.3 (b)).
 - e.** Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).
 - f.** Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).
- 11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource:** An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
- a.** The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.
 - b.** The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
 - c.** The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code § 65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf.

Some of SB 18's provisions include:

1. **Tribal Consultation:** If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code § 65352.3 (a)(2)).
2. **No Statutory Time Limit on SB 18 Tribal Consultation.** There is no statutory time limit on SB 18 tribal consultation.
3. **Confidentiality:** Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code § 65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code § 5097.9 and § 5097.993 that are within the city's or county's jurisdiction. (Gov. Code § 65352.3 (b)).
4. **Conclusion of SB 18 Tribal Consultation:** Consultation should be concluded at the point in which:
 - a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
 - b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: <http://nahc.ca.gov/resources/forms/>.

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
 - a. If part or all of the APE has been previously surveyed for cultural resources.
 - b. If any known cultural resources have already been recorded on or adjacent to the APE.
 - c. If the probability is low, moderate, or high that cultural resources are located in the APE.
 - d. If a survey is required to determine whether previously unrecorded cultural resources are present.
2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
 - a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
 - b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
 - a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
 - b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
 - a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
 - b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
 - c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subs. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: Nancy.Gonzalez-Lopez@nahc.ca.gov.

Sincerely,



Nancy Gonzalez-Lopez
Cultural Resources Analyst

cc: State Clearinghouse

DEPARTMENT OF TRANSPORTATION

DISTRICT 4

OFFICE OF TRANSIT AND COMMUNITY PLANNING

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a California Way of Life.*

March 4, 2021

SCH #: 2021010203

GTS #: 04-ALA-2021-00574

GTS ID: 21934

Co/Rt/Pm: ALA/ 238/6.44

Carmela Campbell, Director
Economic and Community Development, Union City
34009 Alvarado-Niles Road
Union City, CA 94587

Re: Union City Station District Specific Plan + Notice of Preparation (NOP) of an Environmental Impact Report

Dear Carmela Campbell:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the Union City Station District Plan Project. We are committed to ensuring that impacts to the State's multimodal transportation system and to our natural environment are identified and mitigated to support a safe, sustainable, integrated and efficient transportation system. The following comments are based on our review of the January 2021 NOP.

Project Understanding

The Station District Specific Plan (SDSP) is intended to guide future development of an approximately 470-acre Planning Area around the Union City BART Station.

Travel Demand Analysis

With the enactment of Senate Bill (SB) 743, Caltrans is focused on maximizing efficient development patterns, innovative travel demand reduction strategies, and multimodal improvements. For more information on how Caltrans assesses Transportation Impact Studies, please review Caltrans' Transportation Impact Study Guide.

If the project meets the screening criteria established in the City's adopted Vehicle Miles Traveled (VMT) policy to be presumed to have a less-than-

Carmela Campbell, Director
March 4, 2021
Page 2

significant VMT impact and exempt from detailed VMT analysis, please provide justification to support the exempt status in align with the City's VMT policy. Projects that do not meet the screening criteria should include a detailed VMT analysis in the Draft Environmental Impact Report (DEIR), which should include the following:

- VMT analysis pursuant to the City's guidelines; if they City has not adopted guidelines at this point, please use the Office of Planning and Research's (OPR) guidelines. Projects that result in automobile VMT per capita above the threshold of significance for existing (i.e. baseline) city-wide or regional values for similar land use types may indicate a significant impact. If necessary, mitigation for increasing VMT should be identified. Mitigation should support the use of transit and active transportation modes. Potential mitigation measures that include the requirements of other agencies such as Caltrans are fully enforceable through permit conditions, agreements, or other legally-binding instruments under the control of the City.
- A schematic illustration of walking, biking and auto conditions at the project site and study area roadways. Potential safety issues for all road users should be identified and fully mitigated.
- The project's primary and secondary effects on pedestrians, bicycles, travelers with disabilities and transit performance should be evaluated, including countermeasures and trade-offs resulting from mitigating VMT increases. Access to pedestrians, bicycle, and transit facilities must be maintained.

Mitigation Strategies

Location efficiency factors, including community design and regional accessibility, influence a project's impact on the environment. Using Caltrans' *Smart Mobility 2010: A Call to Action for the New Decade*, the proposed project site is identified as a Close-In Compact Community where community design is moderate and regional accessibility is strong.

Given the place, type and size of the project, the DEIR should include a robust Transportation Demand Management (TDM) Program to reduce VMT and greenhouse gas emissions from future development in this area. The measures listed below have been quantified by California Air Pollution Control Officers

Carmela Campbell, Director
March 4, 2021
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Association (CAPCOA) and shown to have different efficiencies reducing regional VMT:

- Project design to encourage mode shift like walking, bicycling and transit access:
 - Pedestrian and bicycle network improvements;
 - Wayfinding and bicycle route mapping resources;
 - Transit and trip planning resources such as a commute information kiosk;
 - Real-time transit information systems;
 - Transit access supporting infrastructure (including bus shelter improvements and sidewalk/ crosswalk safety facilities);
 - Orientation of project towards non-auto corridor.
- Addition/ Increase in number of affordable housing units
- Parking and car programs:
 - New development vehicle parking reductions;
 - Implementation of a neighborhood electric vehicle (EV) network, including designated parking spaces for EVs;
 - Designated parking spaces for a car share program;
 - Unbundled parking;
 - Ridesharing programs, Commute Trip Reduction programs, bike sharing programs.
- Mitigation Programs:
 - Participation/Formation in/of a Transportation Management Association (TMA) in partnership with other developments in the area;
 - Aggressive trip reduction targets with Lead Agency monitoring and enforcement;
 - VMT Banking and/or Exchange program.

Using a combination of strategies appropriate to the project and the site can reduce VMT, along with related impacts on the environment and State facilities. TDM programs should be documented with annual monitoring reports by a TDM coordinator to demonstrate effectiveness. If the project does not achieve the VMT reduction goals, the reports should also include next steps to take in order to achieve those targets.

Carmela Campbell, Director
March 4, 2021
Page 4

Please reach out to Caltrans for further information about TDM measures and a toolbox for implementing these measures in land use projects. Additionally, Federal Highway Administration's Integrating Demand Management into the Transportation Planning Process: A Desk Reference (Chapter 8). The reference is available online at:
<http://www.ops.fhwa.dot.gov/publications/fhwahop12035/fhwahop12035.pdf>.

Transportation Impact Fees

The Lead Agency should identify project-generated travel demand and estimate the costs of transit and active transportation improvements necessitated by the proposed project; viable funding sources such as development and/or transportation impact fees should also be identified. We encourage a sufficient allocation of fair share contributions toward multimodal and regional transit improvements to fully mitigate cumulative impacts to regional transportation. We also strongly support measures to increase sustainable mode shares, thereby reducing VMT. The Lead Agency should also consider fair share fees for shuttles that use the public curb space.

The City should also ensure that a capital improvement plan identifying the cost of needed improvements, funding sources, and a scheduled plan for implementation is prepared along with the General Plan. Caltrans welcomes the opportunity to work with the City and local partners to secure the funding for needed mitigation. Traffic mitigation- or cooperative agreements are examples of such measures.

Lead Agency

As the Lead Agency, Union City is responsible for all project mitigation, including any needed improvements to the State Transportation Network (STN). The project's fair share contribution, financing, scheduling, implementation responsibilities and lead agency monitoring should be fully discussed for all proposed mitigation measures.

Carmela Campbell, Director
March 4, 2021
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Thank you again for including Caltrans in the environmental review process. Should you have any questions regarding this letter, please contact Laurel Sears at laurel.sears@dot.ca.gov. Additionally, for future notifications and requests for review of new projects, please contact LDIGR-D4@dot.ca.gov.

Sincerely,

A handwritten signature in black ink that reads "Mark Leong". The signature is written in a cursive, flowing style with a long horizontal tail stroke extending to the right.

MARK LEONG
District Branch Chief
Local Development - Intergovernmental Review

c: State Clearinghouse



March 5, 2021

Carmela Campbell, AICP
Economic and Community Development Director
34009 Alvarado-Niles Road
Union City, CA 94587

SUBJECT: Response to the Notice of Preparation of a Draft Environmental Impact Report for the Union City Station District Specific Plan

Dear Ms. Campbell,

Thank you for the opportunity to comment on the Notice of Preparation (NOP) of the Draft Environmental Impact Report (DEIR) for the Union City Station District Specific Plan. The proposed Plan would guide future development on an approximately 470-acre area around the Union City BART station. The planning area is roughly bound by Decoto Road and H Street to the north, 7th street to the east, Alvarado Niles Road to the west, and the Union City-Fremont border to the south. The planning area has four subareas: The Core, Station East, Gateway, and Civic Center.

The Alameda County Transportation Commission (Alameda CTC) respectfully submits the following comments:

Basis for Congestion Management Program (CMP) Review

- It appears that the proposed project may generate at least 100 p.m. peak hour trips over existing conditions, and therefore the CMP Land Use Analysis Program requires the City to conduct a transportation impact analysis of the project. For information on the CMP, please visit: <https://www.alamedactc.org/planning/congestion-management-program/>.

Use of Countywide Travel Demand Model

- The Alameda Countywide Travel Demand Model should be used for CMP Land Use Analysis purposes. The CMP requires local jurisdictions to conduct travel model runs themselves or through a consultant. Before the model can be used for this project, a letter must be submitted to the Alameda CTC requesting use of the model and describing the project. A copy of a sample letter agreement is available upon request. The most current version of the Alameda CTC Countywide Travel Demand Model was updated in June 2018 to be consistent with the assumptions of Plan Bay Area 2040.

Impacts

- The DEIR should address all potential impacts of the project on the Metropolitan Transportation System (MTS) roadway network.
 - MTS roadway facilities in the project area include: I-880, Alvarado Niles Road, and Decoto Rd

- For the purposes of CMP Land Use Analysis, the Highway Capacity Manual 2010 freeway and urban streets methodologies are the preferred methodologies to study vehicle delay impacts. Note that automobile delay cannot be deemed a significant environmental impact under current CEQA guidelines, however this analysis is required pursuant to the 2019 CMP. This impacts analysis may be included in an EIR appendix or separate document provided to Alameda CTC.
- The Alameda CTC has *not* adopted any policy for determining a threshold of significance for Level of Service for the Land Use Analysis Program of the CMP. Professional judgment should be applied to determine the significance of project impacts (Please see Chapter 6 of the 2019 CMP for more information).
- Please see the changes made to the CMP Land Use Analysis Program made in response to SB743 here: https://www.alamedactc.org/wp-content/uploads/2020/07/Amendment_Land_Use_Analysis_Program_SB743.pdf
- The DEIR should address potential impacts, including both capacity and performance of the project on Metropolitan Transportation System (MTS) transit operators.
 - MTS transit operators potentially affected by the project include: BART, AC Transit, Union City Transit
 - Transit impacts for consideration include the effects of project vehicle traffic on mixed flow transit operations, transit capacity, transit access/egress, need for future transit service, and consistency with adopted plans. See Appendix J of the 2019 CMP document for more details.
- The DEIR should address potential impacts of the project to people biking and walking in and near the project area, especially nearby roads included in the Countywide High-injury Network and major barriers identified in the [Countywide Active Transportation Plan](#).
 - Impacts to consider on conditions for cyclists include effects of vehicle traffic on cyclist safety and performance, site development and roadway improvements, and consistency with adopted plans. See Appendix J of the 2019 CMP document for more details.

Mitigation Measures

- Alameda CTC's policy regarding mitigation measures is that to be considered adequate they must be:
 - Adequate to sustain CMP roadway and transit service standards;
 - Fully funded; and
 - Consistent with project funding priorities established in the Capital Improvement Program of the CMP, the Countywide Transportation Plan (CTP), and the Regional Transportation Plan (RTP) or the Federal Transportation Improvement Program, if the agency relies on state or federal funds programmed by Alameda CTC.
- The DEIR should discuss the adequacy of proposed mitigation measure according to the criteria above. In particular, the DEIR should detail when proposed roadway or transit route improvements are expected to be completed, how they will be funded, and the effect on service standards if only the funded portions of these mitigation measures are built prior to Project completion. The DEIR should also address the issue of transit funding as a mitigation measure in the context of the Alameda CTC mitigation measure criteria discussed above.

Carmela Campbell
March 5, 2021
Page 3

- Jurisdictions are encouraged to discuss multimodal tradeoffs associated with mitigation measures that involve changes in roadway geometry, intersection control, or other changes to the transportation network. This analysis should identify impacts to automobiles, transit, bicyclists, and pedestrians. The HCM 2010 MMLOS methodology is encouraged as a tool to evaluate these tradeoffs, but project sponsors may use other methodologies as appropriate for particular contexts or types of mitigations.
- The DEIR should consider the use of TDM measures, in conjunction with roadway and transit improvements, as a means of attaining acceptable levels of service. Whenever possible, mechanisms that encourage ridesharing, flextime, transit, bicycling, telecommuting and other means of reducing peak hour traffic trips should be considered. The Alameda CTC CMP Menu of TDM Measures and TDM Checklist may be useful during the review of the development proposal and analysis of TDM mitigation measures (See Appendices F and G of the 2019 CMP).

Thank you for the opportunity to comment on this NOP. Please contact me or Chris G. Marks, Associate Transportation Planner at (510) 208-7453, if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'Cathleen', with a long horizontal flourish extending to the right.

Cathleen Sullivan
Director of Planning

cc: Chris G. Marks, Associate Transportation Planner



March 5, 2021

City of Union City
34009 Alvarado-Niles Road
Union City, CA 94587
Attn. Carmela Campbell, Economic and Community Development Director

RE: Union City Station District Specific Plan Area EIR - Notice of Preparation

Dear Ms. Campbell:

Thank you for the opportunity to review the above-referenced Notice of Preparation. Transit-oriented development that reduces Vehicle Miles Travelled (VMT) by locating jobs and housing near mass transit is valuable for the region. We wish to provide several comments to ensure a full and complete scope for the Environmental Impact Report (EIR) and to facilitate the best possible outcomes for the project.

Comments Concerning Notice of Preparation.

Transportation

1. Compatibility with Decoto Corridor Complete Streets Plan

The Decoto Road Complete Streets Project will improve Decoto Road from just east of I-880 to Paseo Padre Parkway, with transit-priority upgrades to improve safety and access for bicyclists and pedestrians. The project is currently in the final design stage. With the aim of ensuring that roadway improvements for the two projects are compatible and supportive of contiguous multi-modal access, we would encourage you to connect with the project lead, City of Fremont Principal Civil Engineer Connie Wong. Connie can be reached at (510) 494-4782 or cwong@fremont.gov. For more information, please also see: <https://www.fremont.gov/3760/52185/Decoto-Road-Complete-Streets-Project>

2. Local Transportation Analysis

Projects that increase employment and residential opportunities near mass transit are conducive to lowering Vehicle Miles Traveled, which has replaced Level of Service as the method to evaluate transportation impacts under CEQA. Still, we would like to coordinate with you on a Local Transportation Analysis to evaluate traffic safety and functionality for intersections near the project and the Fremont-Union City border. Please coordinate with City of Fremont's Senior Transportation Engineer Matthew Bomberg (510-494-4766, MBomberg@fremont.gov) or Associate Transportation Engineer Aleksandr Zabyshny (510-494-4796, AZabyshny@fremont.gov) to discuss further.

3. East Bay Greenway

The East Bay Greenway (EBGW) is a regional bicycle and pedestrian trail proposed to travel through Alameda County, encompassing the existing Ohlone Greenway in Albany and Berkeley and ending at the southern County line in Fremont. The EBGW will increase community and regional access, open space, and public safety, as well as provide a viable commute alternative for pedestrians and bicyclists. We would encourage you to work with Fremont Public Works and Recreation Services Departments to plan for regional trail connections. Please coordinate with City of Fremont's Senior Transportation Engineer Matthew Bomberg (510-494-4766, MBomberg@fremont.gov) or Associate Transportation Engineer Rene Dalton (510-494-4535, RDalton@fremont.gov) to discuss further.

Hazardous Materials

4. Handling and Transport of Potentially Contaminated Soils

The site to the east of the BART station was formally occupied by a large steel mill. An Environmental Site Assessment is recommended, as such uses may generate hazardous material that may remain in the soil. Should project construction have the potential to disturb hazardous materials, protocols should be in place to ensure there are no impacts, due to construction-period disturbance or transport, to off-site communities including the Niles Community in Fremont.

By addressing the above comments, the City of Union City can ensure that the proposed project maximizes opportunities to provide bike and pedestrian access to mass transit and will be done in a manner that is compatible with the residents and businesses near the project area. Please feel free to contact me at your convenience to discuss these comments.

Thank you for your consideration,
Bill Roth, Senior Planner
Community Development Department, City of Fremont



DIRECTORS

AZIZ AKBARI
JAMES G. GUNTHER
JUDY C. HUANG
PAUL SETHY
JOHN H. WEED

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Finance

March 5, 2021

VIA ELECTRONIC MAIL

Carmela Campbell (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 District Specific Plan

Alameda County Water District (ACWD) has reviewed the Notice of Preparation of an Environmental Impact Report (EIR) for the Station District Specific Plan ("SDSP") and would appreciate your consideration of the following comments while developing the EIR:

1. Groundwater: 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 groundwater resources be addressed by the EIR:
 - a. *Groundwater Well Protection/Destruction*:
 - i. 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 excavation. 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>. All permitted work requires scheduling for inspection; therefore, all drilling activities must be coordinated with ACWD prior to the start of any field work.

- ii. ACWD has identified a number of 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. *Dewatering*: Since groundwater is shallow within the project area, the EIR should address temporary and permanent dewatering activities and the potential impact of dewatering on groundwater conditions. In addition, ACWD requests that the following potentially significant impacts related to dewatering activities be addressed:
- i. The amount of water that may be extracted by either temporary or permanent dewatering must be evaluated and documented. Alternative designs should be considered that would minimize the amount of dewatering required during and subsequent to construction. Measurement of groundwater losses due to dewatering may be required and may be subject to a replenishment assessment fee. Mitigation measures should be identified to replace all significant losses of ACWD's water supplies.
 - ii. The EIR should also address the potential impacts that dewatering activities and construction may have on existing groundwater contamination and potential plume migration.
 - iii. ACWD permits are required for the installation and destruction of dewatering wells.
- c. *Existing Hazardous Material Contamination*:
- i. 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).
 - ii. The EIR should identify the properties and extent of contamination within the proposed development where known open or closed LUFT and SCP sites or their plumes exist. ACWD has identified at least five (5) sites within the

proposed development area that are currently or historically impacted by contamination. The EIR should also include figures that show the existing extent of contamination from the various sites in relation to the proposed development and proposed land use, since some of these sites have groundwater plumes that have migrated off-site. The following is additional information regarding the five cleanup sites and additional items that should be addressed in the EIR:

Shell Station located at 2001 Decoto Road in Union City is an active Shell-branded service station with a number of underground storage tanks (USTs). The LUFT site is pending case closure; however, there is residual soil and groundwater contamination that should be addressed in the EIR. The residual contamination at the site could pose an unacceptable risk under certain development activities such as grading, excavation, or installation of water wells.

Former Unocal 5174 located at 34000 Alvarado-Niles Road in Union City is a LUFT site that was closed in 2008. However, the Closure Summary dated December 18, 2008, has specified site management requirements if development occurs in areas with impacted soil or groundwater. In addition, the Site Closure Summary also required that monitoring wells associated with this site be decommissioned in accordance with ACWD guidelines and permits. According to our records, one remaining monitoring well (4S/2W-13H008; MW-8) has not been destroyed and is currently out of compliance. The above conditions must be addressed prior to development.

The AirGas (legacy Air Liquide) facility located at 700 Decoto Road in Union City is an open SCP site. The AirGas facility is a former industrial gas plant with historic impacts from an acetone UST and has been subject to remediation efforts and groundwater monitoring. A Phase II assessment conducted at the site in 2018 determined that volatile organic compounds (VOCs) are present in soil gas and groundwater, and additional investigation is being conducted to delineate the extent of these impacts. The EIR should acknowledge these impacts to site media that could pose an unacceptable risk under certain development activities.

The former McKesson Chemical Facility located at 33950 Seventh Street in Union City is an active SCP Site regulated under San Francisco Bay Regional Water Control Board Cleanup and Abatement Order 99-071. Groundwater impacted by dissolved chlorinated hydrocarbons has been documented beneath and down-gradient of the former facility, including off-site locations. An active remediation system is currently operational at the site and is drawing affected groundwater from on-site and off-site extraction wells. The EIR should include mitigation measures that include regulatory agency review and approval to address potential health risks associated with development activities. In

addition, mitigation measures should also include minimizing the disruption to on-going cleanup activities associated with the site.

The former Pacific States Steel Corporation (PSSC) facility located at 35100 11th Street in Union City is a cleanup site overseen by the California Environmental Protection Agency – Department of Toxic Substances Control (DTSC). The site includes a Waste Consolidation Area (WCA) where slag generated from former steel-making processes was consolidated. Results from ongoing groundwater monitoring in the vicinity of the WCA indicate the presence of limited total petroleum hydrocarbon contamination in groundwater. Project proponents should acknowledge this groundwater contamination in the EIR, including any unacceptable risk it would pose under certain development activities.

- 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 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.
2. Surface Water Protection from Runoff: The SDSP overlies the Niles Cone Groundwater Basin and portions of the SDSP area run adjacent to Old Alameda Creek, both critical resources related to water supplies for the cities of Fremont, Newark, and Union City. Future improvements contemplated within the SDSP, such as developments adjacent to, and an additional bridge crossing, the Alameda Creek Flood Control Channel and Old Alameda Creek pose increased risks for the direct release of fuel or other contaminating chemicals into the adjacent and underlying waterway due to accidental spills or roadway accidents. Appropriate safeguards and controls should be incorporated as mitigations into the EIR to help prevent the direct release of contaminated runoff to the environment. These design measures will help reduce the threat of contamination to the water used for recharging the groundwater basin which constitutes a significant portion of ACWD's drinking water supply.
3. Utilities and Service Systems:
 - a. If any modifications of existing water facilities or new water service to properties within the SDSP project area are required, the project proponent shall contact ACWD's Engineering Department. The SDSP Project Description should reflect that any existing water services which will not be used in the new development must be removed by ACWD at the developer's expense.
 - b. For existing structures to be demolished or if the SDSP 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 SDSP 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 within the SDSP project area. No excavations or crossings under the ACP are allowed. If utility installations below the ACP are required for projects within the SDSP area, 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 SDSP 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).
- 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 SDSP project area 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 SDSP project area 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, 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 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, 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, for coordination regarding water supply planning.

Thank you for the opportunity to comment on the SDSP at this time.

Sincerely,



Laura J. Hidas
Manager of Water Resources

cs

B1

From: Friends of Save the Union City Hills <unioncityhills@gmail.com>

Date: February 3, 2021 at 4:30:00 PM PST

To: Elizabeth Ames <unioncityhills@gmail.com>

Cc: liz ames <liz4bart@gmail.com>

Subject: Please help RESHAPE Union City and comment on the Union City Station District Specific Plan

Dear Friends,

Tonight at 6PM, the City is hosting a virtual public meeting and is asking for your guidance to update the Station District Specific Plan to allow for future development of an approximately 470-acre Planning Area around the Union City BART Station.

Please register for the NOP scoping meeting on February 3, 2021 at 6pm using the following link:

Union City Station District NOP Scoping

Meeting<https://us02web.zoom.us/webinar/register/WN_JnTiKvPqQDur7Ny3nZOuIQ>

Please ask the City to analyze a critical change to the Station District and INCLUDE a new alternative for transit-oriented development and a new car-free zone, as described below:

- 1- Build a Linear Park, multimodal transportation hub, not the Quarry Lakes Parkway 4-lane connection to I-880 and our hills near Mission Boulevard.
- 2- Create a priority conservation area for the 37- acres of farmland and restore the farmland status to Statewide importance by rezoning mid-density housing back to farmland to preserve Ramirez Farm.
- 3- Create a priority Steelhead trout habitat by preserving and restoring Old Alameda Creek and connection to Channelized Alameda Creek as a climate adaption strategy. Do not allow 3 bridges to cross over this watershed and preserve the Alameda Creek watershed and habitat.
- 4- NOT BUILD the proposed 4-lane expressway, Quarry Lakes Parkway, requiring 6 bridges (3 bridges over Alameda Creek and Old Alameda Creek and 3 bridges supporting 2 railroad tracks and 1 BART track at the cost of over \$200 million in taxpayer dollars
 - a. Not subsidize private developers by using Measure BB taxpayer funds to build the Quarry Lakes Parkway and connections to the proposed 6- lane Paseo Padre Parkway and the 6- lane I-880/Decoto Roadway segments.
 - b. Ask private Developers to propose transit-oriented development that does not require a 4-lane expressway.

Build a Linear Park, multimodal transportation hub, not the Quarry Lakes Parkway 4- lane connection to I-880 and our hills near Mission Boulevard is a GATEWAY to open space, farmland, creeks, transit, hillsides, housing and shopping.

- a. Just type in Union City and Fremont to see our extreme risk to hillside fires. <https://ia.cpuc.ca.gov/firemap/>

- b. See the City plans to build in our hillside using the new expressway for access, more sprawl, page 8. This is not smart, transit friendly development. What the City is proposing is Costly Sprawl development which is only going to worsen the City's already poor fiscal condition and creating more traffic, more noise, more pollution and no community amenities including parks, playgrounds and preservation of open space including local community farms growth. <https://www.unioncity.org/DocumentCenter/View/4717/Attachment-1-Hillside-Specific-Plan-Staff-Report-11-10-CC-Meeting?bidId=>
- c. Linear parks are sustainable and our future. <https://segd.org/30-urban-linear-parks-projects-2000>

Ask for housing closer to transit and use of underutilized warehousing sites, a less costly approach due to available utilities and roadways already constructed.

With climate change, wildfires and the City struggling to be financially sustainable, together let's rethink and envision a transit-oriented BART station district. Let's not use open space and farmland to build more housing and expressways.

Thank you for your Support to preserve and save our quality of life.

Yours.

Elizabeth Ames

Chair, Save Our Hills

BART Director, District 6

B2

From: "'Cautn1' via Admin" <admin@dyyettandbhatia.com>

Subject: misnomer

Date: February 10, 2021 at 4:04:44 PM PST

To: admin@dyyettandbhatia.com

Reply-To: Cautn1 <cautn1@aol.com>

When applied to the development east of the Union City BART station, the term "transit-oriented" is a misnomer.

In the Bay Area, about a quarter of total trips are commute trips and about 15% of commute trips are transit commute trips. Well over 90% of total trips are at this time by auto. How would you prevent the vast majority of the residents of your new housing development from using your new highway to make the vast majority of their total trips by automobile?

G. Cauthen

M E M O R A N D U M

To: City of Union City
From: Dyett and Bhatia
Re: Union City Station District NOP Meeting – February 11, 2021
Date: January 27, 2022

Following is a summary of the Union City Station District NOP Meeting held on 2/11/2021 at 6:00 pm via Zoom. The intent is to highlight comments from members of the public on environmental issues and alternatives to the proposed project made at the scoping meeting so that the EIR preparers can address them in the Draft EIR.

PANELISTS:

- Carmela Campbell
- Derek Farmer
- Aaron Welch
- Gabriella Folino
- Andrew Hill

ATTENDEES:

- Timothy Swenson
- Liz Ames
- Chetan Angadi
- RB
- Antonio Munoz
- Glenn Kirby
- Jonathan Pettey
- G Cauthen

PRESENTATION

- Andrew Hill, Principal with Dyett & Bhatia, presented on project background, purpose, environmental review process, and timeline.
 - Scoping period: January 26, 2021- March 6, 2021 with comments due by 5:00 pm. The City will provide a grace period and accept comments in writing through March 8.
 - Background: Union City is preparing a Station District Specific Plan to guide future development in the area surrounding the Union City BART Station. The City will prepare an Environmental Impact Report (EIR) for the Specific Plan pursuant to the California Environmental Quality Act (CEQA).
 - Objectives/Agenda

- Project Description: Planning Area
- Specific Plan Timeline/Organization/Strategies
- Environmental Review Process
- Purpose of EIR
- CEQA Requirements: Resource Categories/ Scoping Comments
- Project Resources
- Opportunities for Comment/Questions and Comments

SUMMARY COMMENTS FROM PUBLIC

The following is a summary of public comments on environmental issues to address in the Draft EIR raised by participants at the February 11 scoping meeting:

- **Alternatives** - Several participants emphasized the need for an EIR alternative that considers higher density around the BART station in order to reduce VMT and promote transit use.
- **Hazardous Materials** – One commenter noted that there are two “clay capped” hazardous materials sites in the planning area. Sites that could contain hazardous materials should be identified in the EIR, including the restoration site and the site and the site on the Northern side of the sound wall behind the Amtrak. Mitigation measures should be developed as needed to address related impacts.
- **Preservation** – Another commenter expressed the need to preserve the agricultural farmland on the Peterson and Ramirez farms and the historic Peterson farmhouse within the Gateway subarea.
- **Conservation** - Conservation and protection of old Alameda and Alameda Creeks is an important environmental issue to address. The EIR should also address water conservation measures to replenish the ground water aquifer.
- **Liquefaction** – One commenter noted the Gateway site is in a liquefaction zone.
- **Fiscal Analysis** – A fiscal analysis should be conducted for new development including the funding for new roadways and civic building required to support the city services. If new facilities are needed, the environmental impacts of constructing these facilities should be addressed in the Draft EIR.

DETAILED COMMENTS FROM PUBLIC:

- Glenn Kirby: While I am intrigued by the mention of Agri-hood for the gateway would like more understanding as to what that is, it sounds a little unusual for a city. Would it involve a zoning designation that would lay out what the agricultural component would be and restrictions on chemicals?
 - Response (Carmela): In the summer/early fall this team went through a robust public outreach process looking at alternatives for different land uses within the Station District Specific Plan Area. Prior to that, we had wrapped up a General Plan effort, the Specific Plan process was to refine the land use vision. The Gateway site has been part of the housing element for the past 25 years. Has been identified for housing for many years, at first it was included as single-family housing. We are looking at more higher density housing. Through the specific plan process, there was a lot of feedback about the existing agricultural uses on the property. An example of the agri-hood concept exists in Santa Clara with an agricultural reserve– going beyond a community garden. Right now, are trying to provide a framework so if a future developer comes in, they will have an idea of the City’s vision.
- RB: #1. I do not see any data in the report about all this new office and retail development. Union City is in a fiscal crisis right now because they have not developed appropriate office and retail development and I do not see how this project is going to do that. #2. You discuss housing; housing does not pay for itself unless you adequately create the financial mechanisms for it to work and Union City has not done that. I want that addressed in the EIR, and I want to see the data supporting the retail and office development that you claim is going to happen because if it was going to happen it would have happened already. It has happened in Hayward and Fremont but is not actually happening in Union City. Thank you.
 - Response (Carmela): There is a vision for this area, within the core, the City owns three parcels (blocks) that we have identified for offices. We are in an exclusive negotiating agreement with a developer, who does BioTech development. With everything that is going on, and what is happening with the office market, I cannot tell you when it will come to fruition. But what we always think about when we consider Union City being successful, we believe in a jobs housing balance and think it is critical. We do have a housing development proposed to the Station East area, and as part of the project, the City is having a fiscal impact study prepared.
 - Response (Andrew): The EIR is a primarily environmental impact document but does get at the fiscal implications in a few different ways. One of the fundamentals will be projections, which will be grounded in economic realities over the 20-year life of the plan. Also, certain aspects like the public services aspect of the EIR that would increase the need for fire stations, police stations, schools, which could have an impact on city finances. As Carmela said there is a fiscal impact analysis that is part of the plan.
- Liz Ames (BART Director for Union City): I ran on a campaign that questioned the East West Connector, now the Quarry Lakes Parkway. Roughly 200 million dollars or more, the area in question where the road is that goes through the Gateway site which goes

- through the Ramirez and Peterson Farms and possibly will take out the Peterson farmhouse, which is of national significance. The question is, as a BART director we want to focus on transit-oriented development and walkability, and a job housing balance, I know a lot of folks want to see that. But really this project is an expressway loaded with housing on it. I hope to see housing at the marketplace, the community had spoken out about preserving the Gateway site as a conservation site, it is really close to our watershed. I would like the City to look for ways to preserve the gateway site, adapt to climate change, adapt a vision where we are not installing a 4-way expressway that connects to a 6-way expressway. If that is possible consider making it a conservation area, or a linear park, and focus the development in a ½ mile radius around the BART station. I really hope the City turns this around to be a more traditional Transit Oriented Development. At this point it seems like a suburb with an expressway and it just is not going to give us the results, the viability of the station is going to be auto-centric. Thank you.
- Response (Andrew): It sounds like that question is about a specific alternative in the EIR looking at ways to address potential traffic impact, options for further densification around the station, to get around some of the impacts that were discussed. There are going to be a range of feasible alternatives which could reduce or avoid the impacts of the proposed plan so that sounds like good information which can inform those alternatives.
 - Response (Carmela): Quarry Lakes Parkway has gone under its own review and CEQA and has been approved. It is considered part of the planned network. Any outcome of the environmental document will have no bearing on the project, as it is an approved project. Includes robust bicycle and pedestrian facilities.
 - Jonathan: My question is towards the two caps which are in the core part of the district. I do not know if I missed this in previous meetings or reports, but was wondering how the City was going to address those if they should be developed? With specific concern about the community, which is sandwiched between the play gaps, most people know that next to the BART train tracks, and the smaller one on the other side of the sound wall behind the Amtrak.
 - Response (Carmela): The restoration site was part of the former Pacific State Steel factory. The majority of what is in there, in terms of contamination is slag, which is large pieces of metal, of course that is an issue, should it rain have those heavy metals leaking into the water. It was then capped, and so seal, we consider this a long-term vision for development, no current plans for development, at its top its 7 acres, if you were to remove the dirt it is a 16-acre site, if we were to develop this site it would be under strict regulation. Right now some development is allowed on top of the Cap. In the environmental document there will be information regarding this site and reference to its status. Re the second property: believe it is owned by Alameda Property. We will research to find out more regarding this site.
 - G Cauthen: Professional engineer and the president of the Bay Area Transportation Working Group, calling something transit oriented does not make it so. In the Bay Area about 25% of all trips are commute trips and of that 25% only about 15% of those are transit commute trips. Only 4% of total trips are transit commute trips, if that figured doubled, then 7-8% trips are transit commute trips, makes it 90% of trips still automobiles, unless

we make a real attempt to attract people away from the car, for all of the trips, then transit is transit in name only. People want to build a completely new highway to the housing developments door. The rest of the development there is a lot of commercial uses being planned, one way we could address this issue in a logical way, make the destinations for non-transit uses be accessible by walking by biking anything but getting in a car.

- Response (Andrew): Important focus of the plan will be TDM strategies, also will point out that studies have shown that work-related trips that are more likely to use transit, and there is a fair amount of office planned near the station which will help address the impotence of TOD the commentator referred to. The Transportation Analysis will show how the plan will help shift modes of transportation.
- RB: Andrew, I appreciate your comments in response to my comments and understand that you will analyze vehicle miles traveled. I think Mr. Caufen is right spot-on, what is going to happen is there will be a lot of housing development there, single-family housing which is tied to a car and not to a car which will create even more traffic and will need to be analyzed by the EIR. The problem that Union City has had, the problem is that real Transit Oriented Development, you need to bring in uses that are tied to transit. I hope that part of the environmental analysis you really look at this, that as part of the environmental analysis, is the city going to do an independent fiscal impact analysis of the plan? That individually corroborates what is presented in this plan.
 - Response (Carmela): When projects come in they are required to do a fiscal impact analysis, to make sure they are not going to be costing the city in the long run. Two developments have reduced car parking, trying to set a future where folks do not need to depend on their cars so much. We are looking to add residential and increase density in the Market Place.
 - Response (Andrew): All of these comments feed into the alternatives with higher densities that could do more to facilitate transit-oriented development and it seems like there is a lot of support for that and so will be taken into consideration.

QUESTIONS FROM ZOOM Q&A:

- Liz Ames: Gateway Alternatives should include: re-establishment of prime agricultural farmland for the Peterson and Ramirez farms, conservation of protection of old Alameda and Alameda Creeks, preservation of the historic Peterson farmhouse. All these conservation measures could be considered as a priority conservation area and address the city's municipal code standards for parklands, Yours, Liz Ames, BART Director.
- Liz Ames: The Marketplace Alternatives: housing rather than building housing on a green field site for an agri-housing project proposed at the Gateway site. Yours. Liz Ames, BART Director.
- Liz Ames: Conservation measures should be considered in response to climate adaption plans for the city. The Gateway site is noted to be in a liquefaction zone. This was not proposed in the EIR for the East West Connector. Yours. Liz Ames.
- Liz Ames: The EIR should address water conservation measures to replenish the ground water aquifer. Liz Ames.

- Liz Ames: Riparian corridors and a linear Park should be reestablished instead of storm water retention basins proposed on agricultural land/ Ramirez farm.
- Liz Ames: Please also consider an alternative – that the Quarry Lakes Parkway be not considered to connect with the East West Connector, an expressway connection to 1880 to 238.
- Larry Gissible: Development of the Core section will eliminate the Union City Parking Lot for BART riders. There is limited parking at the BART station. Already people park illegally at the Market Place. What will be done to replace the parking??
- Liz Ames: The robust public outreach asked for preservation of the Ramirez Farm and Peterson farmhouse and asked for the City to consider housing within the ½ mile radius of the BART Station. Extending housing on a potential conservation area, is not necessary nor is a vision for climate adaption. Yours. Liz Ames.
- Liz Ames: Why not work with a non-profit to preserve the Gateway site for conservation purposes? Liz Ames, BART Director
- Liz Ames: Looking forward, Union City is a commuter city will not jobs near Transit. The East West Connector is funded by taxpayers and is not funded by developers. Please show the fiscal analysis of all the development and include the funding for new roadways and civic building required to support the city services. City finances are critical to the cities health and the city is in a financial crisis.
- Glenn Kirby: The scope and scale of this plan will result in significant demand on infrastructure. There is a proposed arterial roadway referred to as Quarry Lakes Parkway. This proposed roadway would complete the circulation system for all modes of travel and facilitate services to the district. I believe that if this plan is approved and the Quarry Lakes Parkway is not provided there will be significant impacts on the district and the surrounding area. The completion of the roadway circulation system is necessary to avoid significant traffic impacts.
- Liz Ames: The East West connector and Quarry lakes Parkway (over \$200M) is not fully funded and should be considered as an alternative, not a preferred project. The Planning and Economic Director mentioned not to evaluate the option removing the Quarry Lakes Parkway and moving housing closer to BART within the ½ mile radius. Thank you, Andrew, for a proposal my constituents have asked for which is considering the housing near transit – within the ½ mile radius from BART and reevaluate housing closer to BART! Building a suburb near a 4-lane roadway is a decades old planning model. Yours. Liz Ames, BART Director.
- Chetan Angadi: Can you put more street lights on 11th street and make it fancy like future downtown, it too dark even to walk near fountain?
- Liz Ames: Union City has had trouble delivering jobs near transit and has had an exclusive negotiating agreement for several years now by only a 2-story office building has been constructed. We can't assume the BART station will be a town center without more density near the station rather than sprawling housing outside the ½ mile radius. I along with the BART Board in 2019 approved the eastern pedestrian/bike access. The transportation section should also look through the regional supercommuter traffic the

East West Connector/Quarry Lakes Parkway and local housing/ auto generated traffic. Please again consider alternatives without the expressway. Housing and jobs should be using transit not cars, yet the proposal is a suburban design. Thank you. Liz Ames.

- Liz Ames: The framework to make a site less dependent on autos, is to develop less roads and more multi-modal alternatives. Yes Andrew – higher density no expressway, but a linear multimodal park to a gateway conservation area is going to attract a place to live, work, play and recreate. It will revitalize the station we all want!!!
- Liz Ames: Please consider our water replenishment of our aquifer, conservation and planning to address climate adaption for the next 50 years, if possible. Planning and land uses do not address how we can cope with significant changes in climate. Thank you!!!!

B23

Subject: **BATWG Newsletter – February 2021**
Date: 2/24/2021 7:15:33 PM Pacific Standard Time
From: BATWGnewsletter@gmail.com
To: cautn1@aol.com

[View this email in your browser](#)



BATWG Newsletter

Bay Area Transportation Working Group · BATWGblog.com

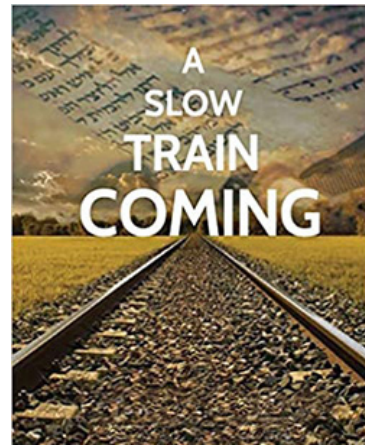
Issue No. 32, February 2021

BATWG Critiques Valley Link Draft Environmental Impact Report February 2021

For almost a year BATWG has struggled to find the transportation logic behind the frantic effort to push the \$3,000,000,000 + Valley Link proposal to the front of the line for federal funding.

Background: Valley Link is a proposed 42-mile commuter rail service with a significant portion to be operated in both directions on a single track. The line would run from the East Dublin BART station via the north edge of Livermore and Tracy to North Lathrop in San Joaquin County. On 9.24.20, \$400,000,000 in Alameda County sales tax funds were unaccountably diverted from their voter-approved intent of improving transit connections between BART and the Tri-Valley to the Valley Link proposal (hereinafter VL.)

On 12.2.20 the Draft Environment Impact Report (DEIR), estimated to be at least 5,000 pages long was finally released, with public comment due by 1.21.21. During the ensuing 40 days BATWG critiqued the document which we believe fails to meet CEQA, Alameda County Measure BB and AB758 requirements in a number of significant ways. Our critiques were submitted to the sponsoring agency before the deadline. Here is part of what we found.



Project Alternatives: CEQA requires that major infrastructure projects include viable alternatives to compare against the “preferred alternative”. Not a single one of the some 30 so-called “alternatives” listed in the DEIR come anywhere close to meeting this CEQA requirement. There were and are other options available. Here are two, either of which could serve local and regional travel needs better than VL would. Both have so far been ignored:

[Continue reading →](#)

Union City’s Station Specific Plan.... Transit-Oriented in Name Only

February 2021

The City of Union City has just revealed its ambitious 471 acre “Union City Station Specific Plan” in the general vicinity of the Union City BART station. The first chance the public had to learn about the project came at the City’s 2.11.2021 Scoping Meeting.

This venture, like so many others in the Bay Area is being loudly and continuously heralded as “transit-oriented”. The term admittedly has a nice ring to it. That’s because “transit-oriented”, is intended to suggest that placing a housing project near a train station or bus stop would cause people to forsake their cars in favor of less congesting and more environmentally-acceptable means of travel such as bus, train, ferryboat, bicycling and walking. Sounds positive, right?

Here’s the rub:

[Continue reading →](#)

Advancing Technology Improves Freight Movement Efficiency

February 2021

Since COVID hit, you may have been pleasantly surprised to see how fast a product ordered through the

B23

internet can arrive at your doorstep. Why is that? What's changed?



The fact is that thanks to a rapidly improving set of internet based, sophisticated computer-control measures, suppliers, forwarders, shippers, and distribution companies are adopting much better ways of keeping track of freight shipments than in the past. One of the benefits of a fast, responsive and efficient internal control system is that rather than having to ship everything from the factory or some other central location, suppliers can now set up and use more local and regional storage centers located closer to demand centers without losing track of their products. This can now be accomplished by sophisticated data analysis used to convert demographic trends, consumption records and advertising “hits” to input data suitable for entry into computer models capable of more closely monitoring freight shipping and storage.

[Continue reading →](#)

BATWG is a 501 c3 Non-Profit Corporation organized by a group of experienced transportation professionals and activists in 2012. Mostly volunteers, we are dedicated to working with like-minded groups to improve the reliability and appeal of the Bay Area's passenger rail and bus systems and to significantly ease regional traffic congestion. To learn more about BATWG, please go to batwgblog.com.

BATWG meetings normally occur on the third Thursday of the month from 10 a.m. to noon. To receive an Agenda please send a note to BATWGNewsletter@gmail.com. Dues are \$40 a year, with discounts for seniors and students. To pay dues or otherwise contribute, go to the BATWG website batwgblog.com and click on the donate button, or mail a check to BATWG, P.O. Box 590 888, San Francisco, CA 94159.

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B24

From: Sherman Lewis <sherman.lewisiii@gmail.com> on behalf of Sherman Lewis <sherman@csuhayward.us>
Sent: Wednesday, March 3, 2021 10:32 AM
To: Station District <StationDistrict@unioncity.org>
Cc: friends <friends@saveunioncityhills.com>
Subject: Station District Planning- scope for EIR

WARNING: External email. Please verify sender before opening attachments or clicking on links.

Union City is at a cross-roads: sprawl and highways vs. compact development and sustainability.

In 1961, the Meyers sisters saved Dry Creek from a freeway and from roads going up to the high ridge.

In 1968, Union City, Mayor Kitayama and his Council blocked further development up Appian way by reverting a subdivision to acreage.

In the 1990s Bob Garfinkle and others led the fight to stop development of the hills and had voter support.

In 2014 Liz Ames and others fought development by the Masonic Home and won support of the voters to save open space.

You don't need east-west road capacity in the 84 corridor; you need east-west transit capacity--ACE plus Dumbarton Rail--to improve south bay water circulation, enhance habitat, reduce traffic, and grow the economy sustainably.

You need to preserve the remnants of your historical character, the farm, the farmhouse, and the old creek.

You don't need hundreds of acres of sprawl into the hills; you need to expand Garin-Dry Creek Regional Park from Hayward down to Niles Canyon. Or will Union City fail where Hayward succeeded?

The Parkway got locked into city planning in 2002--19 years ago--and alternatives have been ignored.

Modern transportation planning uses congestion and pricing reform to restrain auto-dependency while expanding alternatives like transit and compact land use. Union City should not induce the traffic it pretends is inevitable--most of which is not even Union City traffic. The Parkway will crimp city budgets for all other purposes for years to come.

The Parkway also could be used to subsidize massive hill development, not only destroying open space but also burdening the city budget with service costs.

--

Sherman Lewis
Professor Emeritus, Cal State Hayward
President, Hayward Area Planning Association
510-538-3692, sherman@csuhayward.us

B25

From: Sherman Lewis <sherman.lewisiii@gmail.com> on behalf of Sherman Lewis <sherman@csu Hayward.us>
Sent: Friday, March 5, 2021 2:04:20 PM
To: Carmela Campbell <CarmelaC@UnionCity.Org>
Subject: Station District Planning- scope for EIR

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--

Sherman Lewis
Professor Emeritus, Cal State Hayward
President, Hayward Area Planning Association
510-538-3692, sherman@csu Hayward.us

B26

From: Cautn1 <cautn1@aol.com>
Sent: Friday, March 5, 2021 2:26:21 PM
To: Carmela Campbell <CarmelaC@UnionCity.Org>
Subject: Toward a Bright Future for Union City

WARNING: External email. Please verify sender before opening attachments or clicking on links.

Dear Carmela,

From the presentation on 2.11, many of us got the impression that those involved in generating the Downtown Plan were genuinely interested in improving Union City, as opposed to just putting money in the pockets of eager developers.

If so, I hope you will:

a.) STICK TO YOUR GUNS and

b.) CALL FOR HELP WHEN YOU NEED IT (which you certainly will if you take the far-sighted course)

As we've said, a suitable plan for Union City would include:

o quickly intensifying the retail and service outlets within easy walking/bicycling distance of the housing units

o replacing the ill-advised and anachronistic East-West Highway to nowhere with something better; namely a highly quality Dumbarton Rail connection between Union City BART and Redwood City Caltrain

o once an improved and more far-sighted plan begins to take hold, don't shy away from imposing congestion pricing where and as needed

*Gerald Cauthen P.E.
President,*

Bay Area Transportation Working Group (BATWG)

510 208 5441

www.batwgblog.com

B27

From: Sherman Lewis <sherman.lewisiii@gmail.com> on behalf of Sherman Lewis <sherman@csuhayward.us>
Sent: Friday, March 5, 2021 2:22 PM
To: Carmela Campbell; Station District
Subject: Union City Station District Specific Plan

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Additional comments

I support Save Union City Hills:

- less traffic, noise and a better design for the Union City BART Station District
- save open space, build housing closer to the BART Station, reserve open areas for protection to combat climate change.

No solution is perfect for traffic. You can have some congestion with more roads or you can have it with fewer roads, more transit, and walkable development which requires enough density over enough area to support a grocery store essential local business.

Station East with 1,800 units and 1,000 parking spaces is anti-economic, anti-social, and anti-environmental. You will be subsidizing car dependency and cramming suburbia into a smaller space with minimal change of mode.

Any parking must be paid for on a per use basis or unbundled and priced based on market demand or economic cost, which ever is higher--not subsidized by living space. You need to design for mobility without owning a car: taxis, shared ride, car share, car rental, walk-in business, etc.

Make the car pay its own way; make sure sustainable modes can work.

--

Sherman Lewis
Professor Emeritus, Cal State Hayward
President, Hayward Area Planning Association
510-538-3692, sherman@csuhayward.us

B28

From: Renee Crawford <rlcinca@yahoo.com>
Sent: Friday, March 5, 2021 1:43 PM
To: Carmela Campbell
Subject: East-west connector (Quarry Lanes Parkway)

WARNING: External email. Please verify sender before opening attachments or clicking on links.

Dear Ms. Campbell,

I have been a Union City resident for over 10 years and live at the Mission Blvd end of Union City.

I SUPPORT the plan to make Quarry Lakes Parkway a reality, providing another access path for cars, bikes, and pedestrians between Mission Blvd and Paseo Padre in Fremont. I would welcome more infill development near the BART station (providing additional accessibility and circulation in the City and limiting sprawl). The Parkway would help reduce congestion on Decoto Road, providing a way across Union City that is not at the mercy of train crossings.

Getting across Union City from Mission to, even Paseo Padre Parkway has many traffic signals. Honestly, when I need to get to 880, I go north or south, so I can use a roadway, such as Mowry Avenue in Fremont, because it seems to move more fluidly than, for example, Decoto Road. I would also welcome another safe, pleasing path to Quarry Lakes Regional Park.

I appreciate your time.

Thank you,
Renee Crawford
Union City resident

B29

From: Maria Grazia <mgnicolodi@gmail.com>
Sent: Thursday, March 4, 2021 10:06 AM
To: Station District <StationDistrict@unioncity.org>
Subject: The Quarry Lakes Parkway project

WARNING: External email. Please verify sender before opening attachments or clicking on links.

As Fremont residents since 1975, when orchards instead of constructions graced the area, we are opposed to the Quarry Lakes Parkway project. Our cities are chocked by traffic. We use cars because public transportation is inefficient. Let's not aggravate an already difficult situation.

Glauco and Maria G. Romeo
41055 Pajaro Drive
Fremont 94539

B30

From: David G <davidgtmp-internet@yahoo.com>

Sent: Friday, March 5, 2021 5:49:07 PM

To: Carmela Campbell <CarmelaC@UnionCity.Org>; Station District <StationDistrict@unioncity.org>

Cc: Carol Dutra-Vernaci <CarolD@UnionCity.Org>; Emily Duncan <EmilyD@UnionCity.Org>; Jaime Patino <JaimeP@UnionCity.Org>; Pat Gacoscos <PatG@UnionCity.Org>

Subject: Union City Station District Specific Plan – Comments

WARNING: External email. Please verify sender before opening attachments or clicking on links.

Dear Ms. Campell,

I am concerned about Union City vision to improve the quality of life in the city. We do not want to keep adding more roads and removing green/wild lands. It was already shown in previous election that Union City residents want to preserve large undeveloped land like the Masonic Flatland (Measure KK).

Reevaluate local road alternatives and NO Roadway alternatives. The Quarry Lakes Parkway, a new 4- lane expressway from I-880 and to our hills at Mission Boulevard/Appian WAY lacks foresight and does not create a walkable community in Fremont nor in Union City.

Please consider an alternative for a linear park instead of a new 4-lane expressway. Please do not remove Ramirez farm and the 1884 Peterson farmhouse.

Kindest Regards,
David

B31

From: Claudette Begin <claudettebegin@gmail.com>
Sent: Friday, March 5, 2021 4:42:56 PM
To: Carmela Campbell <CarmelaC@UnionCity.Org>; Station District <StationDistrict@unioncity.org>
Cc: Alex Chis <alexchis@alum.mit.edu>
Subject: Union City plans for development - go back to livable city model

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Carmela Campbell
Economic and Community Development Director City of Union City
34009 Alvarado-Niles Road
Union City, CA 94587
(510) 675-5316

Dear Ms. Campbell,

In the 1990s my husband and I were part of a movement in Union City to stop misplaced development in the Union City hills.

Our movement resulted in a number of new city council members being elected with a new vision, building towards a walkable, transit centered, and park life in central parts of Union City.

Plans for this new traffic development flies in the face of that approach. Adding more traffic lanes only increases traffic. What works is development of housing near BART, expanding buses and other corollary transportation modes with bicycles, walking etc.

Especially now that we are seeing a sea change of working habits, which has impacted traffic. Excuse us, but have you been noticing this? Should we move with this reality or act on the plans that started some decades ago about cars, cars, cars?

My husband and I purchased our home in walking distance from BART and have been very happy to see some of the projects towards a walkable city. We've seen blind and other disabled Union City residents moving freely in the shopping around BART. We need more of this.

The new Parkway will cut right across the connection between the district near BART with the county park, remove the buffer of farmland, and create a carbon sink in the area.

We are also alarmed about the proposed building of hundreds of single family homes in our hills. We need more inexpensive homes NOT more expensive single family mansions in conceivably problematic locations. Let's follow the model of Berkeley, Sacramento, etc to rezone away from single family homes. These single family homes help developers not regular working people - We are proud that Union City has been a haven for a diverse, regular working people population. Let's keep it that way!

Sincerely,

Claudette Begin
Alexander Chis

B32

From: Mary Spoon <gardengreen1@yahoo.com>
Sent: Friday, March 5, 2021 9:51 AM
To: Station District <StationDistrict@unioncity.org>
Subject: Quarry Lakes Parkway

WARNING: External email. Please verify sender before opening attachments or clicking on links.

We don't need this parkway from 880 to mission, Union City has little open space. i, as a taxpayer do not want to fund this project. I vote no on this bill.

Thank you,
Mary Spoon

From: cuencaguy@aol.com <cuencaguy@aol.com>
Sent: Friday, March 5, 2021 5:42 PM
To: Station District <StationDistrict@unioncity.org>
Subject: Station District Disaster

WARNING: External email. Please verify sender before opening attachments or clicking on links.

Dear Union City Council Members,

I have been a resident and taxpayer in Union City over 20 years now. During that time, all the reasons why the "All-America" city was so attractive are slowly being eroded away. And much of that erosion is taking under the 'watchful eye' of the City Council and Planning Commission- if not at their specific direction.

Is there no slice of real estate you are not willing to cram more retail into- or shoehorn in more "high-density housing" into? Do you really think that long-term residents like myself want to live in the squalor of a "big-city wanna-be" where crime, traffic, over crowding and an out of control homeless situation is allowed to run rampant- as is becoming the case in Union City? Is that your definition of "city planning"?

Your plans for the "Station District" have not only been a well-kept secret (even though I live very near it and my tax dollars would fund it, not once have I received a solitary bit of information about the plans the city has, nor has my input ever been solicited by city leadership), but your plans are ill-conceived and quite apparently takes nothing into account as to its impact on current residents.

If your plan is to kill off every remaining inch of open space, cram as many people into as small an area as possible, create more traffic (the ride up Decoto from Paseo Padre to Mission sometimes took 20+ minutes pre-Covid) and if it is all about maximizing property tax dollars while also maximizing misery for the current residents and taxpayers, then congratulations! You are succeeding and your plans to make our city as cramped and unpleasant as possible are well heeded. WE must be sure to name a new street after you for your "contribution" to Union City.

I know that I am likely to get a lecture (if I get a response at all) about all the "detailed planning and thought" that went into this... and all the "new jobs" it will create, and how badly we "need the housing", and how it will give is a "downtown" feel, and you are welcome to keep peddling that propoganda, but I for one am not buying it.

When I moved here from the Peninsula over 20 years ago, I thought *'this can be my forever home. I can retire one day and live out my years comfortably in Union City'*. Now, I'm not so sure thanks to the apparent tax revenue craving 'leadership' that unashamedly has planted a "For Sale" sign into one of the few remaining open spaces in what was once a great "All-America" city. Time to erase our name off that list I suppose.

Craig Guglielmetti
2576 Lambert Court
Union City

B34

From: Amanda Yongng <amandayongng@yahoo.com>

Sent: Saturday, March 6, 2021 11:31 AM

To: Carmela Campbell; Station District; dschoenholz@fremont.gov

Cc: Carol Dutra-Vernaci; lmei@fremont.gov; Emily Duncan; Jaime Patino; Pat Gacoscos; Gary Singh; jkassan@fremont.gov; tcx@fremont.gov; rsalwan@fremont.gov; tkeng@fremont.gov; councilmemberjones@fremont.gov; yshao@fremont.gov

Subject: Protect Ramirez Farm and the 1884 Peterson Farmhouse

WARNING: External email. Please verify sender before opening attachments or clicking on links.

Hello,

I learned recently that Ramirez Farm and the 1884 Peterson Farmhouse are forced to leave the land due to a development project. It is a threat to our open space and agricultural lands.

I strongly oppose to this development project.

- Amanda
Concerned Citizen

B35

From: Thomas Browne <tw.browne@att.net>
Sent: Saturday, March 6, 2021 10:11:47 AM
To: Carmela Campbell <CarmelaC@UnionCity.Org>
Subject: Quarry Lakes Pkwy

WARNING: External email. Please verify sender before opening attachments or clicking on links.

Hi Carmela-Am writing you to express my opposition to the building of an expressway connecting 880 and Missions Bl. i am a resident of northeast Fremont, living in the mouth of Niles Cyn. i can envision what a new roadway like this would do, namely create even more traffic and congestion in the area where i live. Please consider putting these lands to a more passive use that's less harmful to our citizens and environment? How about parklands with a walkway along the length of it? i could get behind that! Cheers, Tom Browne



Jason R. Flanders
4030 Martin Luther King Jr. Way
Oakland CA, 94611
916.202.3018
jrf@atalawgroup.com

March 6, 2021

Carmela Campbell, AICP
Economic and Community Development Director
City of Union City
34009 Alvarado-Niles Road
Union City, CA 94587
carmelac@unioncity.org

Sent via electronic mail

Re: Comments on Notice of Preparation of Draft Environmental Impact Report for Union City Station District Specific Plan

Dear Carmela Campbell,

On behalf of our client, Elizabeth Ames, I am writing to submit the following comments regarding the Notice of Preparation (“NOP”) of a Draft Environmental Impact Report for Union City Station District Specific Plan (“Specific Plan DEIR”).

A. Quarry Lakes Parkway

Members of the community, and project decisionmakers, must be fully informed that the draft Specific Plan project would include development of the East-West Connector project (“EWC”) now known as Quarry Lakes Parkway (“QLP”). While the NOP and other recent documents refer to this as a local road, it is anything but, and will result in significant traffic-related effects to the community that must be disclosed in an EIR, and which should feasibly be mitigated or avoided altogether.

In preparing the Specific Plan DEIR, the City should not proceed with the proposed project based on the Final Environmental Impact Report for the 2040 Union City General Plan Update certified December 10, 2019 (“General Plan FEIR”)¹ because it inaccurately characterizes QLP as a local roadway, when in fact, the QLP provides only a segmented portion of the EWC, which will create significant regional traffic and air quality impacts, that are undisclosed by the General Plan FEIR, or by the EWC 2009 EIR². As explained further, below, and supported by the attached expert analysis of traffic engineer Rock Miller (“Miller Report”,

¹General Plan FEIR incorporated by reference the General Plan DEIR, both of which are available at <http://www.uc2040.com/documents/>.

² 2009 EIR available at <https://www.alamedactc.org/programs-projects/multimodal-arterial-roads/i-880-to-mission-boulevard-east-west-connector-project/>

fully incorporated herein by reference), environmental analysis of the EWC must be updated before it can be considered and included in projects such as this.

The Specific Plan DEIR should also incorporate the following recommendations from the Miller Report:

- The traditional traffic analysis that was initiated by the existing traffic data should be completed to provide full information and disclosure regarding traffic conditions expected upon completion of the project. (Miller Report at 2-5.)
- The status of the Quarry Lakes Parkway, its cost, uncertainty, and other factors make it unreasonable to consider it as a committed project for 2040 in the project EIR. It should not be included as a committed project. There should be no inference that it is needed to allow the proposed project to be approved. (Miller Report at 5.)

The 2009 EIR documentation for the Quarry Lakes Parkway project is out of date. It needs to be revised to reflect current CEQA guidelines, changes in the project description and the local setting. The traffic analysis should be updated to reflect current assumptions for land use, circulation improvements, and other factors that have changed since 2009. The project description should be revised to reflect state of the art approaches to multimodal facilities that serve active transportation, and usage levels for the facility should be presented. These will show its limited value and that continued deficiencies will exist. The updated study will and ensure that local issues such as access to private properties and noise impacts are assessed properly. Project costs should be carefully reviewed to test whether it is the best use of \$300 million that does not exist for circulation improvements under current regulations and constraints. (Miller Report at 5.)

In addition, the EWC 2009 EIR used to justify the EWC was dictated by a non-binding Memorandum of Understanding between Caltrans, Fremont, and Union City with an improperly narrow purpose of only evaluating local congestion and traffic impacts, rather than including regional traffic passing through Fremont from Interstate 880 and Highway 238/Mission Boulevard. The 2009 EIR did not evaluate a no-project alternative, based on this flawed purpose, and it cannot and should not be used to exclude feasible alternatives from the scope of the proposed Specific Plan.

The General Plan states that “Traffic is projected to increase in the future; however, over 80 percent of the projected increase in vehicle miles traveled (VMT) within the city and along Interstate 880 between now and 2040 is attributed to traffic generated outside Union City.” (General Plan, Chapter 5 Mobility, at 173.) The QLP would, therefore, very likely create additional VMT that should be avoided.

Before the EWC/QLP can proceed, the City must update the regional traffic model and VMT assessment to acknowledge QLP is a regional project and consider the consequences of regional connectivity. The changed conditions since EWC was first considered now strongly demonstrate that the EWC will continue to motorize the region and facilitate long-range

commutes, passing straight through Fremont and Union City without utilizing the multi-modal transportation nodes, such as the proposed Station East.

It should be noted that even the City's own Dipsa Specific Plan, dated 2006³ characterized the East-West corridor of former State Route 84 as a "regional" facility:

4.2. Regional. Regional improvements include projects that provide a direct benefit to the DIPSA, but are not necessarily limited to the boundaries of the DIPSA. Many of these improvements are at the boundary of the DIPSA, or traverse the DIPSA. The Local Roadway Improvement (LRI), formerly State Route 84, is a "regional" facility designed to relieve regional congestion and provide improved access from I-880 to Mission Boulevard. The LRI will provide internal access and also improve access from I-880, which will be beneficial to the commercial and industrial properties in the DIPSA.

This provides further support for conducting an updated regional traffic study and for analyzing the proposed QLP as a regional connector.

Current regional projections show induced demand will create more congestion, including congestion at Niles Canyon Road. This is problematic because it crosses regional drinking water supplies such as Alameda Creek, thus exposing these supplies to additional risks associated with contamination from pollutants, including those from construction and higher fire risk. The DEIR must assess, and mitigate or avoid, these significant impacts.

Relatedly, the Specific Plan DEIR must also include in its updated regional traffic study an updated environmental review based on changed conditions, including climate change, new climate and carbon emission standards, weather patterns, and wildland fire risk. CEQA requires that the EIR evaluate the effects of the Proposed Action on the environment. (Cal. Pub. Res. Code §§ 21100, 21061). This requirement extends to analyzing both direct and indirect effects, as well as how and to what extent the Proposed Action will exacerbate existing hazards or conditions that may result in significant effects to the environment. (Cal. Code Regs., tit. 14, § 15126.2) (*California Building Industry Assn. v. Bay Area Air Quality Management Dist.* (2015) 62 Cal.4th 369, 392).

B. Alternatives and Mitigation Measures

The City must assess feasible alternatives and mitigation measures to lessen regional VMT, and the significant environmental effects discussed, above. In furtherance of this goal, the Specific Plan DEIR should consider alternatives that inhibit or preclude the use of QLP as an East-West Connector, and associated effects to local residents. For example, QLP could be reduced in size, or not connected to Interstate 880. The City also should consider the superior alternative of focusing regional traffic through the Auto Mall Parkway, which is the route currently used by Facebook and Google buses, and would avoid effects to local land uses and environs. The Specific Plan DEIR should also consider developing denser housing in the Station District within a 1/2 mile radius from BART station. The General Plan FEIR/DEIR had

³ Dipsa Plan available at <https://www.unioncity.org/DocumentCenter/View/1976/DIPSA---Final-July-2006?bidId=>.

dismissed this alternative but for reasons that do not preclude the consideration of this alternative here:

The No Construction of the Quarry Lakes Parkway alternative was rejected from further consideration because the project has already been approved by the Alameda County Transportation Authority and is not a project directly resulting from the implementation of the proposed 2040 General Plan. The Final Environmental Impact Report for the project was completed and approved in April 2009. This alternative would not alter any of the impacts associated with the 2040 General Plan because the Quarry Lakes Project is not a project directly resulting from the implementation of the proposed 2040 General Plan. (General Plan DEIR at 6-24 to 6-25.)

This is inaccurate as a matter of fact and law. Further approvals for QLP are needed, and it is plainly proposed as part of the Specific Plan. The City simply is not powerless, at this juncture, to change direction and avoid construction of the disastrous EWC. Further, as noted in the Miller Report, the EWC 2009 EIR is outdated and deficient. (Miller Report at 2-5.) The Miller Report further notes that ACTC has apparently handed the QLP project off to Union City, and suggested that the land use and traffic forecasts should be updated. (*Id.* at 4.) Thus, the City should not rely on the earlier EIRs and should perform an updated regional traffic analysis and consider this alternative in the Specific Plan DEIR. Further, unlike the General Plan high level of planning, the QLP would be directly implemented as a major component of the proposed Specific Plan.

Any alternatives that include the QLP should be based on an updated regional traffic analysis, and include mitigation measures that that inhibit or preclude the use of QLP as an East-West Connector, such as utilizing fewer lanes or otherwise limiting connections to Interstate-880.

C. Conclusion

We thank you for your careful consideration of these issues, and we look forward to a constructive dialogue. Please do not hesitate to contact me at any time.

Sincerely,


Jason R. Flanders
ATA Law Group

December 18, 2020

Jason Flanders
Aqua Terra Aeris Law Group
4030 Martin Luther King Jr. Way
Oakland CA 94609

Subject: Station East Residential/Mixed Use Project & DEIR

Dear Mr. Flanders,

You requested that Rock E. Miller & Associates conduct a review and provide comments regarding transportation analysis for the subject project and documents relating to the Quarry Lakes Parkway proposed roadway as it relates to the subject project. We are pleased to provide this response for consideration by Union City.

The proposed project traffic study was prepared based upon revisions to CEQA stemming from changes legislated by SB 743 that have evolved over the past few years. These revisions move the focus of traffic impact analysis away from Level of Service assessments for intersections and roadways. The emphasis is shifted toward Vehicle Miles Traveled, determining whether the net additional travel activity is higher or lower than a threshold of significance. An important component of this analysis is that failure to meet Level of Service thresholds is no longer considered a significant impact. These changes were developed in part to encourage infill development, especially in areas where transit service and other alternatives to private auto travel are attractive.

The proposed project is a high density residential and mixed-use project. There is high level transit available on adjacent streets and the site is within walking distance of a BART station. In my opinion and based upon current CEQA guidelines, there is no doubt that the project would not have significant environmental impacts with respect to transportation. This reading of CEQA further suggests that there is no need for any transportation mitigation for this project or a project of comparable density and use mixture on the site. This was precisely the outcome that was anticipated by the changes in CEQA for dense projects in built-up areas with good transit.

The traffic study for the project was initiated under the previous CEQA guidelines that focus on roadway and intersection Level of Service (LOS). The study presented and described a list of roadways that might experience traffic increases, and it presented existing daily traffic volumes on roadways and peak hour traffic volumes at 17 intersections. Nine intersections were close to the project site and BART station, while 8 intersections were further from the site. The intersection turning movement data presented is the foundation for an LOS analysis of roadway conditions, but no LOS analysis was included in the EIR. It appears that the study preparers abridged the process based upon concurrent changes in CEQA as the study was being prepared. CEQA as currently applied would allow for this and would not have even required the traffic volumes to be collected and presented.

CEQA does not forbid agencies from continuing to study LOS at intersections. It mainly provides that mitigation of intersection LOS impacts is not required to find the project impacts to be insignificant. There is nothing that would prevent the City from proceeding with the traditional LOS analysis, if the City had concerns over traffic and wanted to understand how the project might change or adapt to current conditions.

Other city and regional guidelines would strongly encourage a full analysis of LOS. Many of these are stated in the traffic study. Most relevant are:

- The ACTC congestion management plan that requires an assessment of individual development actions on the regional transportation system for developments with more than 100 PM peak hour trips.
- City General Plan Goal M-4, Policy M-4.3 that establishes LOS standards at signalized intersections

While CEQA does not require an LOS analysis of the roadway system, few agencies in California have chosen to not conduct the LOS analysis for major projects. Agency guidelines often still require the analysis, and many agencies want to know if there are any potential issues that can be resolved through a more detailed analysis that can readily or easily be incorporated into the site planning. If unresolvable issues are identified, they do not become significant impacts per CEQA, but if they can be alleviated, the study provides the basis for including additional provisions in the project.

Recommendation 1: *The traditional traffic analysis that was initiated by the existing traffic data should be completed to provide full information and disclosure regarding traffic conditions expected upon completion of the project.*

The proposed project includes the future Quarry Lakes Parkway in a list of transportation facilities that are presumed to be fully committed and likely to exist in the future. The study indicates that this facility will be completed by 2040. This project has a significant history of controversy and challenges. Caltrans originally envisioned the corridor as a freeway/expressway, but they scrapped it decades ago due to cost, impacts of construction, and controversy. ACTC adopted the project and reduced the corridor to an arterial. They prepared an EIR in 2009 that identified many impacts and identified an extremely high cost, over \$300 million. The most recent fact sheet indicates that \$210 million (2/3 of the cost) remains unfunded. The project appears to have been handed over to Union City for further pursuit upon completion of the EIR.

The 2009 EIR described the project as a widening of Decoto Road to 6 lanes from I-880 to Paseo Padre Parkway, and a widening of Paseo Padre to 6 lanes from Decoto Road southeast for about ½ mile. Also, a new road would be constructed from Paseo Padre Parkway to Mission

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Boulevard at 7th Street. The new roadway would include bridges or underpasses to cross Alameda Channel, Old Alameda Creek, BART, and two railroad corridors.

The project included pedestrian and bicycle features to mitigate certain impacts. These were the traditional features that were widely used in 2009, including bicycle lanes and a side path trail. These facilities do not represent state-of-the-art for bicycle infrastructure. Bicycle lanes on a fast roadway do not attract or encourage riders. Side paths expose bicyclists to unregulated conflicts at intersections. A more up-to-date project would alter the approach to design and ultimately could affect facility requirements.

There are impact concerns that the 2009 document did not address. These include the significant changes in CEQA to shift the analysis from LOS to VMT. There was no analysis of VMT in the 2009 document. The document also had no complete analysis of Section 4F impacts to recreational lands. Recreational uses tend to expand over the years. The Dog Park near Mission Boulevard may be impacted and the alternative to realign Osprey Drive through Arroyo Park is also not adequately discussed.

The extensive traffic analysis for the 2009 EIR does not suggest that the Quarry Lakes Parkway project will be effective in alleviating regional traffic circulation, alone or in combination with other projects. Many intersections are forecast to remain with poor level of service or will be degraded from existing conditions if the project is constructed. The analysis also suffers from a fundamental flaw that was common in older studies. It presumed traffic growth would occur largely unrestrained by circulation deficiencies and added the unrestrained traffic growth to existing or surely committed circulation facilities. The study then reveals that the entire circulation system is badly overburdened. This is because traffic levels have been forecast to increase everywhere. Everything needs to be widened or improved, and the proposed project becomes a component of “everything”.

The Quarry Lakes Parkway project is a very costly project that will not alleviate all circulation concerns or eliminate all deficiencies. The extent of deficiency forecast is not reasonable, especially near the project site. Existing conditions show a deficiency especially near I-880 as traffic is concentrated by the Dumbarton Bridge and squeezed onto or diverted from Decoto Road. An additional deficiency is noted approaching Niles Canyon Road, another point of traffic concentration.

Decoto Road is deficient at major intersections east of I-880, but the extent deficiency reduces moving further to the east. The Quarry Lakes Parkway addresses the deficiency by opening up Decoto Road near I-880 allowing additional traffic to pour onto Decoto Road. As a result, a future analysis will show deficiencies along all major intersections along Decoto Road, but these conditions may be lessened if it is widened to 6 lanes from I-880 east to Paseo Padre Parkway. It continues to show deficiencies east of Paseo Padre which are aggravated because of the increased flow to/from I-880. Quarry Lakes Parkway, despite its high cost, will not alleviate all

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circulation concerns. It also is unlikely to be heavily. The primary benefits of the new portion of the roadway area limited to alleviating at-grade railroad crossing issues that can be remedied through other approaches.

The documentation has indicated that Fremont is proceeding with the widening of Decoto Road to 6 through lanes and is jointly studying extension of this widening through Union City. This widening will be a much lower cost action to address local traffic conditions, but it is not reflected in recent traffic analyses. The traffic count included in the EIR shows that far more traffic turns to or from Decoto Road to the leg of Mission Boulevard north of the intersection and away from Niles Canyon. Any traffic that began on Decoto Road near I-880 has turned off Decoto long before reaching Mission Boulevard.

When ACTC handed the project over to Union City, they did suggest that the land use and traffic forecasts should be updated. Kittelson & Associates did prepare a recent memorandum that investigated the update process, but they did not conduct the suggested analysis. There was an analysis of trip generation, a comparison of existing traffic volumes with historical values, and an assessment of future travel times based upon travel demand models. The study noted that there were substantial land use increases locally but that traffic volumes had not changed. This experience is local proof that traffic forecasts that suggest extreme future congestion often do not materialize as expected. The study concluded that the analysis of 2009 did not need an update. It also noted that the Quarry Lakes Parkway project was not necessary to the approval of the proposed project.

Most significantly, the Kittelson study did not deeply investigate local traffic movements or indicate how usage of Quarry Lakes Parkway would be used. Due to its short length and the geometry of the local road system, the Parkway will not be the shortest route between many destinations. It would more likely be used as a bypass to travel a little further and a little longer to avoid more direct routes. The shortest way from the Dumbarton Bridge approach to Niles Canyon is via Decoto Road to Alvarado Niles Road, but this route was not even included in Kittelson's forecasted travel time analysis. The Quarry Lakes Parkway route is nearly $\frac{3}{4}$ mile longer. It would not be used for travel between these points without increasing local VMT.

The Kittelson study estimated future travel times based upon travel demand model outputs. These models use crude formulas to estimate travel time. The estimates are suitable for regional modeling, but they are not calibrated to produce accurate travel times on city street systems. Regional models are seldom used to forecast travel times on specific routes with precision, because travel times are based upon local factors that are not built into travel demand models.

It is more appropriate to use area travel demand forecasts as input to street and intersection LOS analyses. This step will continue to show that the deficiencies are large at critical bottlenecks such as the Dumbarton Bridge approach and Niles Canyon, but that the forecasted traffic cannot increase beyond the bottlenecks. The models also often show that the overall regional demand is 2-4 times the roadway system capacity, and any measure that increases capacity by the nominal

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amount of a single travel lane is quickly absorbed and the congestion either remains constant, moves to different locations, or gets worse because of attracted and newly generated traffic.

Recommendation #2: *The status of the Quarry Lakes Parkway, its cost, uncertainty, and other factors make it unreasonable to consider it as a committed project for 2040 in the project EIR. It should not be included as a committed project. There should be no inference that it is needed to allow the proposed project to be approved.*

Recommendation #3: *The 2009 EIR documentation for the Quarry Lakes Parkway project is out of date. It needs to be revised to reflect current CEQA guidelines, changes in the project description and the local setting. The traffic analysis should be updated to reflect current assumptions for land use, circulation improvements, and other factors that have changed since 2009. The project description should be revised to reflect state of the art approaches to multi-modal facilities that serve active transportation, and usage levels for the facility should be presented. These will show its limited value and that continued deficiencies will exist. The updated study will and ensure that local issues such as access to private properties and noise impacts are assessed properly. Project costs should be carefully reviewed to test whether it is the best use of \$300 million that does not exist for circulation improvements under current regulations and constraints.*

I am attaching my resume and qualifications to conduct this review and make comments. Please contact me if you have any questions.

Sincerely,
Rock E. Miller & Associates



Rock Miller, P.E.
Firm Principal / CEO

Resume

Rock E. Miller, P.E.

Mr. Miller is a registered Traffic and Civil Engineer in the State of California and has more than 45 years of transportation engineering, planning, design, and operations experience. He has formerly served as City Traffic Engineer for Costa Mesa and staff traffic engineer with the County of Orange. He is thoroughly familiar with the latest capabilities and requirements available and expected from cities and municipal governments. For more than 25 years, Mr. Miller has been a consultant at the senior or principal level in the field of traffic engineering, traffic safety, and circulation design.

Mr. Miller has completed a wide variety of unique transportation projects, including traffic impact studies, traffic signals, signing, striping, street lighting, work site traffic control, and the design of street and highway improvements. He has also prepared many transportation policy plans and completed controversial and complex transportation studies, including projects anticipating litigation by another public agency and projects with intense public opposition. Mr. Miller is well regarded for his ability to apply strong fundamental traffic engineering knowledge to custom situations. He has frequently been an invited speaker to regional and national conferences and committees on many topics, including pedestrian circulation and safety, urban bikeway design, traffic calming, traffic safety, and transportation policy.

Mr. Miller was elected and served as International President of the 15,000-member Institute of Transportation Engineers (ITE) in 2012. He received a Lifetime Achievement award from ITE's Western U.S. District in 2018. Mr. Miller is also an extension Faculty member for the University of California, Berkeley, Institute of Transportation Studies and teaches classes in Fundamentals of Traffic Engineering, the Manual of Uniform Traffic Control Devices (MUTCD), and Bikeway Design. He also serves as a voting member of the National Committee on Uniform Traffic Control Devices and as an alternate member to the California Traffic Control Devices Committee, two committees that oversee guidelines for use of traffic control devices in the U.S. and in California.

EDUCATION

MS, Civil Engineering, UC Davis, Davis, California, 1976

BS, Civil Engineering, UC Davis, Davis, California, 1973

REGISTRATIONS

Professional Engineer #11271-PE (Civil), State of Hawaii

Professional Engineer #1139 (Traffic), State of California

Professional Engineer #29493 (Civil), State of California

Certified Professional Traffic Operations Engineer #205, Institute of Transportation Engineers

WORK EXPERIENCE,

Firm Principal, Rock E. Miller & Associates, Orange, CA (2018-present)
Senior Principal, Traffic and Transportation, Stantec Consulting, Irvine, CA (2010 – 2018)
Principal, KOA Corporation/Katz, Okitsu & Associates, Orange CA (1995-2010)
Owner/Principal, Rock E. Miller & Associates, Tustin, CA (1990-1995)
Principal Engineer, Basmacyan-Darnell Associates, Irvine, CA (1987-1990)
City Traffic Engineer, City of Costa Mesa, CA (1979-1987)
Traffic Engineer, County of Orange, CA (1976-1979)
Instructor, UC Berkeley, Institute of Transportation Studies, Berkeley, CA (2002-present)

PROFESSIONAL ASSOCIATIONS

International President, Institute of Transportation Engineers (2012)
President, Institute of Transportation Engineers, Western District (2002)
Member, Association of Pedestrian and Bicycle Professionals
Member, American Society of Civil Engineers
Member, US Transportation Research Board: Bicycle Research Committee
Member, US National Committee on Uniform Traffic Control Devices
Associate, Congress for New Urbanism
Member California Zero Traffic Fatalities Task Force

SPECIALTY DISCIPLINES

Pedestrian Enhancement and Safety Studies
Bicycle Enhancement and Safety Studies
Modern Roundabout Application and Design
Traffic Signal System Design
Traffic Signal Timing Plans
Traffic Signs and Markings
Freeway Traffic Flow Analysis
Traffic Performance Improvements
Traffic Planning for Downtowns and Walkable Areas
Neighborhood Traffic Management

AWARDS

- 2005 43rd Annual Meeting Best Technical Presentation - : How Does the Chicken Cross the Road?
- 2001-2002 WesternITE Editors Award - In Pavement Flashing Crosswalks – State of the Art
- 2018 WesternITE Lifetime Achievement Award

PUBLICATIONS and PRESENTATIONS

- Traffic Signal Coordination, Myths and Realities. CA League of Cities Conference, 2008.
- Safety Experience with PPLT Conversions in California. ITE District 6 Annual Meeting, 2007.
- Designing Highway Facilities for Pedestrian Safety. Montana Joint Engineers' Council, 2005.
- Walkin' in L.A., Los Angeles Crosswalk Safety Study. For State of Utah, WASHTO-X, 2005.
- In-Pavement Flashing Crosswalks, State of The Art. TRB Urban Street Symposium, 2003.
- Can 25,000 Pedestrians Cross the Street Safely? ITE Spring Conference, 2003.
- Safety in Marked and Unmarked Crosswalks. Institute of Transportation Engineers, Traffic Engineering Council Newsletter, 2000
- What's Happening in Bicycle Friendly Long Beach, Institute of Transportation Engineers Northeast, Southern, Canadian, and Western Districts 2011-2012.
- Complete Streets and CEQA, Los Angeles County and San Diego Region Walk Symposiums, 2012.
- Pedestrians, Bicycles, and Roundabouts, Green Building Council, Long Beach, 2012.
- Separated Bikeways: Improving Safety and Operation through Design, Institute of Transportation Engineers Annual Meeting with CITE, 2017.
- Model Design Manual for Living Streets, Contributing Author, Los Angeles County Dept of Public Health, 2010.
- Complete Streets in LA, 1870-1980, Presentation to Los Angeles Regional Planning History Group Symposium, 2016
- New Technology in Bicycle Facilities. Presentation to SCAG Toolbox Tuesdays. 2015
- Bikeway Engineering in the 70s, a Turning Point. Transportation Research Board, 2018
- Divided by Design. Roads and Bridges Magazine, March 2018
- Width Requirements for Bikeways, A Level of Service Approach. Master's Thesis, UC Davis 1976.

B37

From: Elaine Ames <ecames7@aol.com>

Sent: Saturday, March 6, 2021 2:02 PM

To: Carmela Campbell

Subject: Disastrous Plan

WARNING: External email. Please verify sender before opening attachments or clicking on links.

With drought conditions/climate change looming over us—you want to build houses in the hills along with tearing down a landmark farm and farmhouse just so you can build a four/lane road—seriously!? You should definitely rethink this plan! It's disgraceful! You should be able to come up with a much sustainable plan with all your education and experience!

Sent from my iPhone

From: Melissa Kit <melissakit289@yahoo.com>

Sent: Saturday, March 6, 2021 11:33:17 AM

To: Carmela Campbell <CarmelaC@UnionCity.Org>; Station District
<StationDistrict@unioncity.org>; dschoenholz@fremont.gov <dschoenholz@fremont.gov>

Cc: Carol Dutra-Vernaci <CarolD@UnionCity.Org>; lmei@fremont.gov <lmei@fremont.gov>; Emily
Duncan <EmilyD@UnionCity.Org>; Jaime Patino <JaimeP@UnionCity.Org>; Pat Gacoscos
<PatG@UnionCity.Org>; Gary Singh
<GaryS@UnionCity.Org>; jkassan@fremont.gov <jkassan@fremont.gov>; tcox@fremont.gov <tcox@fremont.gov>;
rsalwan@fremont.gov <rsalwan@fremont.gov>; tkeng@fremont.gov <tkeng@fremont.gov>
; councilmemberjones@fremont.gov <councilmemberjones@fremont.gov>; yshao@fremont.gov <yshao@fremont.gov>

Subject: Protect Ramirez Farm and the 1884 Peterson Farmhouse

WARNING: External email. Please verify sender before opening attachments or clicking on links.

City Government members of Union City and Fremont -

I write this letter to express my concern of Ramirez Farm and the 1884 Peterson Farmhouse. I have lived in this area for over a decade. I have been calling it the home. The farm and farmhouse are part of my living environment. It is sad that you are taking it away from the residents.

Please reconsider and find an alternative solution.

Thanks,
Melissa

Purple Lotus Temple

35489 Lotus Pond Common, Fremont, CA 94536, USA

Tel: (510) 862-2053 Fax: (510) 429-7150

March 6, 2021

City of Union City Planning Division, Economic and Community Development
Carmela Campbell, Economic & Community Development Director
34009 Alvarado-Niles Road
Union City, California 94587

Subject: Comments on Station East Residential/Mixed Use Project, Draft Environmental Impact Report SCH# 2020039032, and Notice of Preparation for Station East Specific Plan, Draft Environmental Impact Report, SCH #2021010303

Purple Lotus Temple (PLT), located at 35489 Lotus Pond Common, Fremont, CA 94536, is at the NW corner of Quarry Lake Park and is right next to the Gateway subarea described in Union City's General Plan. PLT purchased its current site in 1999, started construction in 2011, and finally received occupancy permit on October 12, 2020.

PLT was not aware of, and has never been informed about this project. No notice was given to us by government agencies (ACTA, Caltrans, Fremont, Union City). It was about two weeks ago that PLT learnt about them from BART. After reading the details of the projects, PLT was shock to find out that our neighbor land will soon be developed and transformed to such an extent that brings great harm to PLT and its communities.

PLT has dozens residential monks and nuns, with over ten thousand members in Bay Area and million globally. PLT also operates an Educational Institute which has 16 classrooms with the capacity of 200 students. The initial campus (Purple Lotus School) at 33615 9th Street, Union City is transferring to the New Campus. However, due to covid-19, we have delayed the plan until the pandemic subsides.

We see that the projects, including the regional East-West connector, will cause a great deal of noise pollution, extreme amount of traffic, and air pollution. The safety of monks and nuns as well as students are of great concern to us, not to mention the excessive damage these projects will inflict on the environment, and to members and visitors of the Temple.

Purple Lotus Temple

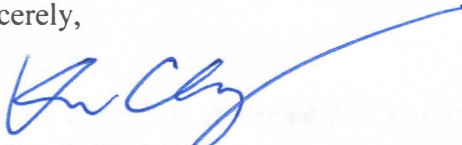
35489 Lotus Pond Common, Fremont, CA 94536, USA

Tel: (510) 862-2053 Fax: (510) 429-7150

We also notice that the utmost essential public safety issues (police force, fire department) were not mentioned. With the defunding of the police force, and at the same time the increase of several hundreds of new residents at the border of Union City and Fremont, how can one guarantee the public safety of the community, when they cannot even manage public safety currently?

Thus, we demand the projects be stopped until the safety issues and concern of PLT and school be addressed. At this moment, the EIR of 2009 has no studies done regarding this matters.

Sincerely,



Dr. Kwok Choi Ng
Board of Director
CFO

cc:
Mayor of Fremont
Mayor of Union City
Fremont City Council Members
Union City Council Members
Fremont Community Development Director

B40

From: Albert Ng <aalbertng@gmail.com>

Sent: Saturday, March 6, 2021 4:52:25 PM

To: Carmela Campbell <CarmelaC@UnionCity.Org>; Station District

<StationDistrict@unioncity.org>; dschoenholz@fremont.gov <dschoenholz@fremont.gov>

Cc: Carol Dutra-Vernaci <CarolD@UnionCity.Org>; lmei@fremont.gov <lmei@fremont.gov>; Emily

Duncan <EmilyD@UnionCity.Org>; Jaime Patino <JaimeP@UnionCity.Org>; Pat Gacoscos

<PatG@UnionCity.Org>; Gary Singh

<GaryS@UnionCity.Org>; jkassan@fremont.gov <jkassan@fremont.gov>; tcox@fremont.gov <[\[mont.gov\]\(mailto:mont.gov\)>; \[rsalwan@fremont.gov\]\(mailto:rsalwan@fremont.gov\) <\[rsalwan@fremont.gov\]\(mailto:rsalwan@fremont.gov\)>; \[tkeng@fremont.gov\]\(mailto:tkeng@fremont.gov\) <\[tkeng@fremont.gov\]\(mailto:tkeng@fremont.gov\)>](mailto:tcox@fre</p></div><div data-bbox=)

; councilmemberjones@fremont.gov <councilmemberjones@fremont.gov>; yshao@fremont.gov <yshao@fremont.gov>

Subject: Comments on EIR draft (Union City Station District Specific Plan)

WARNING: External email. Please verify sender before opening attachments or clicking on links.

To whom it may concern,

I am a member of Purple Lotus Temple. I am also a local resident. I learned very recently that there is a major development project (Quarry Lake Parkway project) that is very close to the temple's border. It is a major concern to all of our members.

I have been with this Buddhist organization for a long time. We spent almost 20 years to raise funds to build this temple. It is not acceptable that we only learned this shocking news very recently. The Quarry Lake Parkway project will ruin the tranquility setting of the Temple that we devote to much to establish.

My ask to Union City and Fremont city government is to sincerely consider an alternative and develop a solution that balances all stakeholders' needs.

Wish Buddha bless all

Best

Albert Ng

From: SzeLianWa <szelianwa@gmail.com>
Date: Saturday, March 6, 2021 at 4:27 PM
To: Carmela Campbell <CarmelaC@UnionCity.Org>, Station District <StationDistrict@unioncity.org>, 'Dan Schoenholz' <dschoenholz@fremont.gov>
Cc: Carol Dutra-Vernaci <CarolD@UnionCity.Org>, "lmei@fremont.gov" <lmei@fremont.gov>, Emily Duncan <EmilyD@UnionCity.Org>, Jaime Patino <JaimeP@UnionCity.Org>, Pat Gacoscos <PatG@UnionCity.Org>, Gary Singh <GaryS@UnionCity.Org>, "jkassan@fremont.gov" <jkassan@fremont.gov>, "tcox@fremont.gov" <tcox@fremont.gov>, "rsalwan@fremont.gov" <rsalwan@fremont.gov>, "tkeng@fremont.gov" <tkeng@fremont.gov>, "councilmemberjones@fremont.gov" <councilmemberjones@fremont.gov>, "yshao@fremont.gov" <yshao@fremont.gov>
Subject: Comments on EIR draft (Union City Station District Specific Plan)

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To whom it may concern,

This is SzeLianWa Fashi (lama) of Purple Lotus Temple. I am writing this letter to express my concern and comment on the upcoming Quarry Lake Parkway project.

I am a Fremont resident and a stakeholder directly impacted by this project because this "highway" goes right through our temple border. The noise, traffic and dust caused by this development project will make it impossible to exercise our religious practice.

The COVID-19 is hard on everybody, especially on us as a nonprofit religious organization. Purple Lotus Temple 100% relies on members and worshipers to visit, practice teachings and donate to our cause. Our donation income dropped to less than 10% compared to the past. We are already in deficit. Quarry Lake Parkway construction will bring another devastating threat to the temple's on-going operation after the pandemic.

Purple Lotus Temple (PLT) has hundreds of thousands of international members who travel to visit us to enjoy the tranquility of the Temple's surroundings while practicing religious teaching. The Quarry Lake Parkway project will ruin the entire setting that PLT members devoted 30 years to build. It is not acceptable.

As a religious practitioner, we believe there must be a balance for all creatures to live in harmony. There must be an alternative solution that accommodates all parties' needs. I pray for Union City and Fremont city government and governing bodies on a higher level to work together to develop a better solution to maintain the balance.

Wish Buddha bless all.
Om MaNi Pad Me Hum
Best Regards, Lama SzeLianWa

From: "tessama308@gmail.com" <tessama308@gmail.com>
Reply-To: "tessama308@gmail.com" <tessama308@gmail.com>
Date: Saturday, March 6, 2021 at 4:29 PM
To: Carmela Campbell <CarmelaC@UnionCity.Org>, Station District <StationDistrict@unioncity.org>, 'Dan Schoenholz' <dschoenholz@fremont.gov>
Cc: Carol Dutra-Vernaci <CarolD@UnionCity.Org>, "lmei@fremont.gov" <lmei@fremont.gov>, Emily Duncan <EmilyD@UnionCity.Org>, Jaime Patino <JaimeP@UnionCity.Org>, Pat Gacoscos <PatG@UnionCity.Org>, Gary Singh <GaryS@UnionCity.Org>, "jkassan@fremont.gov" <jkassan@fremont.gov>, "tcox@fremont.gov" <tcox@fremont.gov>, "rsalwan@fremont.gov" <rsalwan@fremont.gov>, "tkeng@fremont.gov" <tkeng@fremont.gov>, "councilmemberjones@fremont.gov" <councilmemberjones@fremont.gov>, "yshao@fremont.gov" <yshao@fremont.gov>
Subject: Comments on EIR draft (Union City Station District Specific Plan)

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To whom it may concern,

This is Lama Tessa of Purple Lotus Temple.

I am writing this letter to express my concern and comment on the upcoming Quarry Lake Parkway project.

I am a Fremont resident and a stakeholder directly impacted by this project because this "highway" goes right through our temple border. The noise, traffic and dust caused by this development project will make it impossible to exercise our religious practice.

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As a religious practitioner, we believe there must be a balance for all creatures to live in harmony. There must be an alternative solution that accommodates all parties' needs. I pray for Union City and Fremont city government and governing bodies on a higher level to work together to develop a better solution to maintain the balance.

Wish Buddha bless all.

Best,
Lama Tessa

B43

On 3/6/21, 4:31 PM, "Nyyan Wang" <lamajoyful@gmail.com> wrote:

WARNING: External email. Please verify sender before opening attachments or clicking on links.

Dear Sir / madam

To whom it may concern,

This is Lama Joyful of Purple Lotus Temple. I am writing this letter to express my concern and comment on the upcoming Quarry Lake Parkway project.

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Wish Buddha bless all.

Best,
Lama Joyful

A MI TA BHA
OM MA NI PAD HUM

From: 盡心法師Lama Stella <lamastella@purplelotustemple.org>
Date: Saturday, March 6, 2021 at 4:37 PM
To: Carmela Campbell <CarmelaC@UnionCity.Org>, Station District <StationDistrict@unioncity.org>, 'Dan Schoenholz' <dschoenholz@fremont.gov>
Cc: Carol Dutra-Vernaci <CarolD@UnionCity.Org>, "lmei@fremont.gov" <lmei@fremont.gov>, Emily Duncan <EmilyD@UnionCity.Org>, Jaime Patino <JaimeP@UnionCity.Org>, Pat Gacoscos <PatG@UnionCity.Org>, Gary Singh <GaryS@UnionCity.Org>, "jkassan@fremont.gov" <jkassan@fremont.gov>, "tcx@fremont.gov" <tcx@fremont.gov>, "rsalwan@fremont.gov" <rsalwan@fremont.gov>, "tkeng@fremont.gov" <tkeng@fremont.gov>, "councilmemberjones@fremont.gov" <councilmemberjones@fremont.gov>, "yshao@fremont.gov" <yshao@fremont.gov>
Subject: Comments on EIR draft (Union City Station District Specific Plan)

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To whom it may concern,

This is Lama Stella of Purple Lotus Temple.

I am writing this letter to express my concern and comment on the upcoming Quarry Lake Parkway project.

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Wish Buddha bless all.

Best Regards,
Lama Stella

From: lama angie <lamaangie@purplelotustemple.org>
Date: Saturday, March 6, 2021 at 4:40 PM
To: Carmela Campbell <CarmelaC@UnionCity.Org>, Station District <StationDistrict@unioncity.org>, 'Dan Schoenholz' <dschoenholz@fremont.gov>
Cc: Carol Dutra-Vernaci <CarolD@UnionCity.Org>, "lmei@fremont.gov" <lmei@fremont.gov>, Emily Duncan <EmilyD@UnionCity.Org>, Jaime Patino <JaimeP@UnionCity.Org>, Pat Gacoscos <PatG@UnionCity.Org>, Gary Singh <GaryS@UnionCity.Org>, "jkassan@fremont.gov" <jkassan@fremont.gov>, "tcox@fremont.gov" <tcox@fremont.gov>, "rsalwan@fremont.gov" <rsalwan@fremont.gov>, "tkeng@fremont.gov" <tkeng@fremont.gov>, "councilmemberjones@fremont.gov" <councilmemberjones@fremont.gov>, "yshao@fremont.gov" <yshao@fremont.gov>
Subject: Comments on EIR draft (Union City Station District Specific Plan)

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To whom it may concern,

This is Lama Angie of Purple Lotus Temple.

I am writing this letter to express my concern and comment on the upcoming Quarry Lake Parkway project.

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Wish Buddha bless all.

Best,
Lama Angie

From: Joe Hung <joehung26@gmail.com>

Sent: Saturday, March 6, 2021 4:42 PM

To: camelac@unioncity.org <camelac@unioncity.org>; Station District <StationDistrict@unioncity.org>; dschoenholz@fremont.gov <dschoenholz@fremont.gov>

Cc: CarolD@unioncity.org <CarolD@unioncity.org>; imei@fremont.gov <imei@fremont.gov>; Emily Duncan <EmilyD@UnionCity.Org>; Jaime Patino <JaimeP@UnionCity.Org>; Pat Gacoscos <PatG@UnionCity.Org>; Gary Singh <GaryS@UnionCity.Org>; jkassan@fremont.gov <jkassan@fremont.gov>; tcox@fremont.gov <tcox@fremont.gov>; rsalwan@fremont.gov <rsalwan@fremont.gov>; tkeng@fremont.gov <tkeng@fremont.gov>; councilmemberjones@fremont.gov <councilmemberjones@fremont.gov>; yshao@fremont.gov <yshao@fremont.gov>

Subject: Comments on EIR draft (Union City Station District Specific Plan)!

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My ask to Union City and Fremont city government is to sincerely consider an alternative and develop a solution that balances all stakeholders' needs.

Wish Buddha bless all

All the best,
Joe Hung.

From: wushi Lama <lamawushi@gmail.com>
Date: Saturday, March 6, 2021 at 4:44 PM
To: Carmela Campbell <CarmelaC@UnionCity.Org>, Station District <StationDistrict@unioncity.org>, 'Dan Schoenholz' <dschoenholz@fremont.gov>
Cc: Carol Dutra-Vernaci <CarolD@UnionCity.Org>, "lmei@fremont.gov" <lmei@fremont.gov>, Emily Duncan <EmilyD@UnionCity.Org>, Jaime Patino <JaimeP@UnionCity.Org>, Pat Gacoscos <PatG@UnionCity.Org>, Gary Singh <GaryS@UnionCity.Org>, "jkassan@fremont.gov" <jkassan@fremont.gov>, "tcox@fremont.gov" <tcox@fremont.gov>, "rsalwan@fremont.gov" <rsalwan@fremont.gov>, "tkeng@fremont.gov" <tkeng@fremont.gov>, "councilmemberjones@fremont.gov" <councilmemberjones@fremont.gov>, "yshao@fremont.gov" <yshao@fremont.gov>
Subject: Comments on EIR draft (Union City Station District Specific Plan)

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To whom it may concern,

This is Lama Wushi of Purple Lotus Temple.

I am writing this letter to express my concern and comment on the upcoming Quarry Lake Parkway project.

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Wish Buddha bless all.

Best,
Lama Wushi

B48

On 3/6/21, 4:44 PM, "台大校友會Julie Chen" <julie.chen.ntuaa@gmail.com> wrote:

WARNING: External email. Please verify sender before opening attachments or clicking on links.

Hello,

My name is Julie Chen. I am a member of Purple Lotus Temple.

I am writing to express my concern and deliver my comments of the Quarry Lake Parkway project EIR draft. This development project has significant impact on our Temple setting. I ask your office to perform a thorough evaluation of all aspects of the project and impacts.

Thanks and best regards,
Julie

From: LianWa Fa Shi <lienwa@hotmail.com>
Date: Saturday, March 6, 2021 at 4:54 PM
To: Carmela Campbell <CarmelaC@UnionCity.Org>, Station District <StationDistrict@unioncity.org>, 'Dan Schoenholz' <dschoenholz@fremont.gov>
Cc: Carol Dutra-Vernaci <CarolD@UnionCity.Org>, "lmei@fremont.gov" <lmei@fremont.gov>, Emily Duncan <EmilyD@UnionCity.Org>, Jaime Patino <JaimeP@UnionCity.Org>, Pat Gacoscos <PatG@UnionCity.Org>, Gary Singh <GaryS@UnionCity.Org>, "jkassan@fremont.gov" <jkassan@fremont.gov>, "tcox@fremont.gov" <tcox@fremont.gov>, "rsalwan@fremont.gov" <rsalwan@fremont.gov>, "tkeng@fremont.gov" <tkeng@fremont.gov>, "councilmemberjones@fremont.gov" <councilmemberjones@fremont.gov>, "yshao@fremont.gov" <yshao@fremont.gov>
Subject: Comments on EIR draft (Union City Station District Specific Plan)

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My ask to Union City and Fremont city government is to sincerely consider an alternative and develop a solution that balances all stakeholders' needs.

Wish Buddha bless all

Best,
Sylvia

From: nyuan wang <liandan8888@gmail.com>

Date: Saturday, March 6, 2021 at 4:57 PM

To: Carmela Campbell <CarmelaC@UnionCity.Org>, Station District
<StationDistrict@unioncity.org>, 'Dan Schoenholz' <dschoenholz@fremont.gov>

Cc: Carol Dutra-Vernaci <CarolD@UnionCity.Org>, "lmei@fremont.gov" <lmei@fremont.gov>, Emily Duncan <EmilyD@UnionCity.Org>, Jaime Patino <JaimeP@UnionCity.Org>, Pat Gacoscos <PatG@UnionCity.Org>, Gary Singh <GaryS@UnionCity.Org>, "jkassan@fremont.gov" <jkassan@fremont.gov>, "tcox@fremont.gov" <tcox@fremont.gov>, "rsalwan@fremont.gov" <rsalwan@fremont.gov>, "tkeng@fremont.gov" <tkeng@fremont.gov>, "councilmemberjones@fremont.gov" <councilmemberjones@fremont.gov>, "yshao@fremont.gov" <yshao@fremont.gov>

Subject: Comments on EIR draft (Union City Station DistrictSpecific Plan)

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Dear Sir / madam

This is Sze LianDan of Purple Lotus Temple. I am writing this letter to express my concern and comment on the upcoming Quarry Lake Parkway project.

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Wish Buddha bless all.

Best,
Sze LianDan

A MI TA BHA
OM MA NI PAD ME HUM

From: lama fineheart <lamafineheart@purplelotustemple.org>

Date: Saturday, March 6, 2021 at 4:57 PM

To: Carmela Campbell <CarmelaC@UnionCity.Org>, Station District <StationDistrict@unioncity.org>, 'Dan Schoenholz' <dschoenholz@fremont.gov>

Cc: Carol Dutra-Vernaci <CarolD@UnionCity.Org>, "lmei@fremont.gov" <lmei@fremont.gov>, Emily Duncan <EmilyD@UnionCity.Org>, Jaime Patino <JaimeP@UnionCity.Org>, Pat Gacoscos <PatG@UnionCity.Org>, Gary Singh <GaryS@UnionCity.Org>, "jkassan@fremont.gov" <jkassan@fremont.gov>, "tcox@fremont.gov" <tcox@fremont.gov>, "rsalwan@fremont.gov" <rsalwan@fremont.gov>, "tkeng@fremont.gov" <tkeng@fremont.gov>, "councilmemberjones@fremont.gov" <councilmemberjones@fremont.gov>, "yshao@fremont.gov" <yshao@fremont.gov>

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Wish Buddha bless all.

Best,
Lama Tessa

From: Acala Puti <acalaputi@gmail.com>

Date: Saturday, March 6, 2021 at 4:58 PM

To: Carmela Campbell <CarmelaC@UnionCity.Org>, Station District
<StationDistrict@unioncity.org>, 'Dan Schoenholz' <dschoenholz@fremont.gov>

Cc: Carol Dutra-Vernaci <CarolD@UnionCity.Org>, "lmei@fremont.gov" <lmei@fremont.gov>, Emily Duncan <EmilyD@UnionCity.Org>, Jaime Patino <JaimeP@UnionCity.Org>, Pat Gacoscos <PatG@UnionCity.Org>, Gary Singh <GaryS@UnionCity.Org>, "jkassan@fremont.gov" <jkassan@fremont.gov>, "tcx@fremont.gov" <tcx@fremont.gov>, "rsalwan@fremont.gov" <rsalwan@fremont.gov>, "tkeng@fremont.gov" <tkeng@fremont.gov>, "councilmemberjones@fremont.gov" <councilmemberjones@fremont.gov>, "yshao@fremont.gov" <yshao@fremont.gov>

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Dear Sir/Madam:

This is SzeLianWa Fashi (lama) of Purple Lotus Temple. I am writing this letter to express my concern and comment on the upcoming Quarry Lake Parkway project.

I am a Fremont resident and a stakeholder directly impacted by this project because this "highway" goes right through our temple border. The noise, traffic and dust caused by this development project will make it impossible to exercise our religious practice.

The COVID-19 is hard on everybody, especially on us as a nonprofit religious organization. Purple Lotus Temple 100% relies on members and worshipers to visit, practice teachings and donate to our cause. Our donation income dropped to less than 10% compared to the past. We are already in deficit. Quarry Lake Parkway construction will bring another devastating threat to the temple's on-going operation after the pandemic.

Purple Lotus Temple (PLT) has hundreds of thousands of international members who travel to visit us to enjoy the tranquility of the Temple's surroundings while practicing religious teaching. The Quarry Lake Parkway project will ruin the entire setting that PLT members devoted 30 years to build. It is not acceptable.

As a religious practitioner, we believe there must be a balance for all creatures to live in harmony. There must be an alternative solution that accommodates all parties' needs. I pray for Union City and Fremont city government and governing bodies on a higher level to work together to develop a better solution to maintain the balance.

Wish Buddha bless all.
Lama Pure

From: stephen ng <stephen0188@gmail.com>
Date: Saturday, March 6, 2021 at 4:58 PM
To: Carmela Campbell <CarmelaC@UnionCity.Org>, Station District <StationDistrict@unioncity.org>, 'Dan Schoenholz' <dschoenholz@fremont.gov>
Cc: Carol Dutra-Vernaci <CarolD@UnionCity.Org>, "lmei@fremont.gov" <lmei@fremont.gov>, Emily Duncan <EmilyD@UnionCity.Org>, Jaime Patino <JaimeP@UnionCity.Org>, Pat Gacoscos <PatG@UnionCity.Org>, Gary Singh <GaryS@UnionCity.Org>, "jkassan@fremont.gov" <jkassan@fremont.gov>, "tcox@fremont.gov" <tcox@fremont.gov>, "rsalwan@fremont.gov" <rsalwan@fremont.gov>, "tkeng@fremont.gov" <tkeng@fremont.gov>, "councilmemberjones@fremont.gov" <councilmemberjones@fremont.gov>, "yshao@fremont.gov" <yshao@fremont.gov>
Subject: Comments on EIR draft (Union City Station District Specific Plan)

WARNING: External email. Please verify sender before opening attachments or clicking on links.

To whom it may concern,

I am a member of Purple Lotus Temple. I am also a local resident. I learned very recently that there is a major development project (Quarry Lake Parkway project) that is very close to the temple's border. It is a major concern to all of our members.

I have been with this Buddhist organization for a long time. We spent almost 20 years to raise funds to build this temple. It is not acceptable that we only learned this shocking news very recently. The Quarry Lake Parkway project will ruin the tranquility setting of the Temple that we devote to much to establish.

My ask to Union City and Fremont city government is to sincerely consider an alternative and develop a solution that balances all stakeholders' needs.

Wish Buddha bless all

Best

Stephen Ng

From: Lian Young <szelianyong911@gmail.com>

Sent: Saturday, March 6, 2021 4:58 PM

To: camelac@unioncity.org <camelac@unioncity.org>; Station District <StationDistrict@unioncity.org>; dschoenholz@fremont.gov <dschoenholz@fremont.gov>

Cc: CarolD@unioncity.org <CarolD@unioncity.org>; imei@fremont.gov <imei@fremont.gov>; Emily Duncan <EmilyD@UnionCity.Org>; Jaime Patino <JaimeP@UnionCity.Org>; Pat Gacoscos <PatG@UnionCity.Org>; Gary Singh <GaryS@UnionCity.Org>; jkassan@fremont.gov <jkassan@fremont.gov>; tcox@fremont.gov <tcox@fremont.gov>; rsalwan@fremont.gov <rsalwan@fremont.gov>; tkeng@fremont.gov <tkeng@fremont.gov>; councilmemberjones@fremont.gov <councilmemberjones@fremont.gov>; yshao@fremont.gov <yshao@fremont.gov>

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My ask to Union City and Fremont city government to sincerely consider an alternative and develop a solution that balances all stakeholders' needs.

Wish Buddha blessing all

From: Hsiang-Yuan Hsia <hsiangy@hotmail.com>

Date: Saturday, March 6, 2021 at 5:01 PM

To: Carmela Campbell <CarmelaC@UnionCity.Org>, Station District
<StationDistrict@unioncity.org>, 'Dan Schoenholz' <dschoenholz@fremont.gov>

Cc: Carol Dutra-Vernaci <CarolD@UnionCity.Org>, "lmei@fremont.gov" <lmei@fremont.gov>, Emily Duncan <EmilyD@UnionCity.Org>, Jaime Patino <JaimeP@UnionCity.Org>, Pat Gacoscos <PatG@UnionCity.Org>, Gary Singh <GaryS@UnionCity.Org>, "jkassan@fremont.gov" <jkassan@fremont.gov>, "tcx@fremont.gov" <tcx@fremont.gov>, "rsalwan@fremont.gov" <rsalwan@fremont.gov>, "tkeng@fremont.gov" <tkeng@fremont.gov>, "councilmemberjones@fremont.gov" <councilmemberjones@fremont.gov>, "yshao@fremont.gov" <yshao@fremont.gov>

Subject: Comments on EIR draft (Union City Station District Specific Plan)

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To whom it may concern,

This is Hsiangyuan of Purple Lotus Temple.

I am writing this letter to express my concern and comment on the upcoming Quarry Lake Parkway project.

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Wish Buddha bless all.

Best,
Hsiangyuan

From: Lian Young <szelianyong911@gmail.com>

Sent: Saturday, March 6, 2021 5:00 PM

To: camelac@unioncity.org <camelac@unioncity.org>; Station District <StationDistrict@unioncity.org>; dschoenholz@fremont.gov <dschoenholz@fremont.gov>

Cc: CarolD@unioncity.org <CarolD@unioncity.org>; imei@fremont.gov <imei@fremont.gov>; Emily Duncan <EmilyD@UnionCity.Org>; Jaime Patino <JaimeP@UnionCity.Org>; Pat Gacoscos <PatG@UnionCity.Org>; Gary Singh <GaryS@UnionCity.Org>; jkassan@fremont.gov <jkassan@fremont.gov>; tcox@fremont.gov <tcox@fremont.gov>; rsalwan@fremont.gov <rsalwan@fremont.gov>; tkeng@fremont.gov <tkeng@fremont.gov>; councilmemberjones@fremont.gov <councilmemberjones@fremont.gov>; yshao@fremont.gov <yshao@fremont.gov>

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My ask to Union City and Fremont city government to sincerely consider an alternative and develop a solution that balances all stakeholders' needs.

Wish Buddha blessing all

All the best,
Raymond Koh

From: John Berry <joehung1001@gmail.com>

Sent: Saturday, March 6, 2021 5:09 PM

To: camelac@unioncity.org <camelac@unioncity.org>; Station District <StationDistrict@unioncity.org>; dschoenholz@fremont.gov <dschoenholz@fremont.gov>

Cc: CarolD@unioncity.org <CarolD@unioncity.org>; imei@fremont.gov <imei@fremont.gov>; Emily Duncan <EmilyD@UnionCity.Org>; Jaime Patino <JaimeP@UnionCity.Org>; Pat Gacoscos <PatG@UnionCity.Org>; Gary Singh <GaryS@UnionCity.Org>; jkassan@fremont.gov <jkassan@fremont.gov>; tcox@fremont.gov <tcox@fremont.gov>; rsalwan@fremont.gov <rsalwan@fremont.gov>; tkeng@fremont.gov <tkeng@fremont.gov>; councilmemberjones@fremont.gov <councilmemberjones@fremont.gov>; yshao@fremont.gov <yshao@fremont.gov>

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My ask to Union City and Fremont city government is to sincerely consider an alternative and develop a solution that balances all stakeholders' needs.

Wish Buddha bless all

Lewis Dune.

From: purplelotustemple <pltyoutube@gmail.com>

Date: Saturday, March 6, 2021 at 5:01 PM

To: Carmela Campbell <CarmelaC@UnionCity.Org>, Station District
<StationDistrict@unioncity.org>, 'Dan Schoenholz' <dschoenholz@fremont.gov>

Cc: Carol Dutra-Vernaci <CarolD@UnionCity.Org>, "lmei@fremont.gov" <lmei@fremont.gov>, Emily Duncan <EmilyD@UnionCity.Org>, Jaime Patino <JaimeP@UnionCity.Org>, Pat Gacoscos <PatG@UnionCity.Org>, Gary Singh <GaryS@UnionCity.Org>, "jkassan@fremont.gov" <jkassan@fremont.gov>, "tcx@fremont.gov" <tcx@fremont.gov>, "rsalwan@fremont.gov" <rsalwan@fremont.gov>, "tkeng@fremont.gov" <tkeng@fremont.gov>, "councilmemberjones@fremont.gov" <councilmemberjones@fremont.gov>, "yshao@fremont.gov" <yshao@fremont.gov>

Subject: Subject 主題 : Comments on EIR draft (Union City Station District Specific Plan)

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To whom it may concern,

This is Lama Hao Xin of Purple Lotus Temple. I am writing this letter to express my concern and comment on the upcoming Quarry Lake Parkway project.

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As a religious practitioner, we believe there must be a balance for all creatures to live in harmony. There must be an alternative solution that accommodates all parties' needs. I pray for Union City and Fremont city government and governing bodies on a higher level to work together to develop a better solution to maintain the balance.

Wish Buddha bless all.

Best,

Lama Hao Xin

From: 王承恩 <nn2wang@gmail.com>

Date: Saturday, March 6, 2021 at 5:06 PM

To: Carmela Campbell <CarmelaC@UnionCity.Org>, Station District
<StationDistrict@unioncity.org>, 'Dan Schoenholz' <dschoenholz@fremont.gov>

Cc: Carol Dutra-Vernaci <CarolD@UnionCity.Org>, "lmei@fremont.gov" <lmei@fremont.gov>, Emily Duncan <EmilyD@UnionCity.Org>, Jaime Patino <JaimeP@UnionCity.Org>, Pat Gacoscos <PatG@UnionCity.Org>, Gary Singh <GaryS@UnionCity.Org>, "jkassan@fremont.gov" <jkassan@fremont.gov>, "tcx@fremont.gov" <tcx@fremont.gov>, "rsalwan@fremont.gov" <rsalwan@fremont.gov>, "tkeng@fremont.gov" <tkeng@fremont.gov>, "councilmemberjones@fremont.gov" <councilmemberjones@fremont.gov>, "yshao@fremont.gov" <yshao@fremont.gov>

Subject: Comments on EIR draft (Union City Station District Specific Plan)

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To whom it may concern,

This is Lama Wu Ze of Purple Lotus Temple. I am writing this letter to express my concern and comment on the upcoming Quarry Lake Parkway project.

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Wish Buddha bless all.

Best,
Lama Wu Ze

From: Wisdom Talk <wisdomtalk108@gmail.com>

Date: Saturday, March 6, 2021 at 5:14 PM

To: Carmela Campbell <CarmelaC@UnionCity.Org>, Station District <StationDistrict@unioncity.org>, 'Dan Schoenholz' <dschoenholz@fremont.gov>

Cc: Carol Dutra-Vernaci <CarolD@UnionCity.Org>, "lmei@fremont.gov" <lmei@fremont.gov>, Emily Duncan <EmilyD@UnionCity.Org>, Jaime Patino <JaimeP@UnionCity.Org>, Pat Gacoscos <PatG@UnionCity.Org>, Gary Singh <GaryS@UnionCity.Org>, "jkassan@fremont.gov" <jkassan@fremont.gov>, "tcox@fremont.gov" <tcox@fremont.gov>, "rsalwan@fremont.gov" <rsalwan@fremont.gov>, "tkeng@fremont.gov" <tkeng@fremont.gov>, "councilmemberjones@fremont.gov" <councilmemberjones@fremont.gov>, "yshao@fremont.gov" <yshao@fremont.gov>

Subject: Comments on EIR draft (Union City Station District Specific Plan)

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To whom it may concern,

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I have been with this Buddhist organization for a long time. We spent almost 20 years to raise funds to build this temple. It is not acceptable that we only learned this shocking news very recently. The Quarry Lake Parkway project will ruin the tranquility setting of the Temple that we devote to much to establish.

My ask to Union City and Fremont city government is to sincerely consider an alternative and develop a solution that balances all stakeholders' needs.

Wish Buddha bless all

Best Regards,
Wil

From: 大度小度 <goldenmother108@gmail.com>
Date: Saturday, March 6, 2021 at 5:17 PM
To: Carmela Campbell <CarmelaC@UnionCity.Org>, Station District <StationDistrict@unioncity.org>, 'Dan Schoenholz' <dschoenholz@fremont.gov>
Cc: Carol Dutra-Vernaci <CarolD@UnionCity.Org>, "lmei@fremont.gov" <lmei@fremont.gov>, Emily Duncan <EmilyD@UnionCity.Org>, Jaime Patino <JaimeP@UnionCity.Org>, Pat Gacoscos <PatG@UnionCity.Org>, Gary Singh <GaryS@UnionCity.Org>, "jkassan@fremont.gov" <jkassan@fremont.gov>, "tcx@fremont.gov" <tcx@fremont.gov>, "rsalwan@fremont.gov" <rsalwan@fremont.gov>, "tkeng@fremont.gov" <tkeng@fremont.gov>, "councilmemberjones@fremont.gov" <councilmemberjones@fremont.gov>, "yshao@fremont.gov" <yshao@fremont.gov>
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Wish Buddha bless all
GM

From: ma yun yau <mayunyau@yahoo.com>
Date: Saturday, March 6, 2021 at 5:19 PM
To: Carmela Campbell <CarmelaC@UnionCity.Org>, Station District <StationDistrict@unioncity.org>, 'Dan Schoenholz' <dschoenholz@fremont.gov>
Cc: Carol Dutra-Vernaci <CarolD@UnionCity.Org>, "lmei@fremont.gov" <lmei@fremont.gov>, Emily Duncan <EmilyD@UnionCity.Org>, Jaime Patino <JaimeP@UnionCity.Org>, Pat Gacoscos <PatG@UnionCity.Org>, Gary Singh <GaryS@UnionCity.Org>, "jkassan@fremont.gov" <jkassan@fremont.gov>, "tcox@fremont.gov" <tcox@fremont.gov>, "rsalwan@fremont.gov" <rsalwan@fremont.gov>, "tkeng@fremont.gov" <tkeng@fremont.gov>, "councilmemberjones@fremont.gov" <councilmemberjones@fremont.gov>, "yshao@fremont.gov" <yshao@fremont.gov>
Subject: Comments on EIR draft (Union City Station District Specific Plan)

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To whom it may concern,

I am Yun-Yau Ma, a member of Purple Lotus Temple. I am also a local resident. I learned very recently that there is a major development project (Quarry Lake Parkway project) that is very close to the temple's border. It is a major concern to all of our members.

I have been with this Buddhist organization for a long time. We spent almost 20 years to raise funds to build this temple. It is not acceptable that we only learned this shocking news very recently. The Quarry Lake Parkway project will ruin the tranquility setting of the Temple that we devote to much to establish.

My ask to Union City and Fremont city government is to sincerely consider an alternative and develop a solution that balances all stakeholders' needs.

Wish Buddha bless all

Best
Yun-Yau Ma

From: Sze Lian Young <SzeLianYoung@hotmail.com>

Sent: Saturday, March 6, 2021 5:25 PM

To: camelac@unioncity.org <camelac@unioncity.org>; Station District <StationDistrict@unioncity.org>; dschoenholz@fremont.gov <dschoenholz@fremont.gov>

Cc: CarolD@Unioncity.org <CarolD@Unioncity.org>; imei@fremont.gov <imei@fremont.gov>; Emily Duncan <EmilyD@UnionCity.Org>; Jaime Patino <JaimeP@UnionCity.Org>; Pat Gacoscos <PatG@UnionCity.Org>; Gary Singh <GaryS@UnionCity.Org>; jkassan@fremont.gov <jkassan@fremont.gov>; tcox@fremont.gov <tcox@fremont.gov>; rsalwan@fremont.gov <rsalwan@fremont.gov>; tkeng@fremont.gov <tkeng@fremont.gov>; councilmemberjones@fremont.gov <councilmemberjones@fremont.gov>; yshao@fremont.gov <yshao@fremont.gov>

Subject: Comments on EIR draft (Union City Station District Specific Plan)!

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To whom it may concern,

This is Lama Raymond of Purple Lotus Temple.

I am writing this letter to express my concern and comment on the upcoming Quarry Lake Parkway project.

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Wish Buddha bless all.

Best,
Lama Raymond

From: lama peace <lamapeace@purplelotustemple.org>

Date: Saturday, March 6, 2021 at 5:33 PM

To: Carmela Campbell <CarmelaC@UnionCity.Org>, Station District <StationDistrict@unioncity.org>, 'Dan Schoenholz' <dschoenholz@fremont.gov>

Cc: Carol Dutra-Vernaci <CarolD@UnionCity.Org>, "lmei@fremont.gov" <lmei@fremont.gov>, Emily Duncan <EmilyD@UnionCity.Org>, Jaime Patino <JaimeP@UnionCity.Org>, Pat Gacoscos <PatG@UnionCity.Org>, Gary Singh <GaryS@UnionCity.Org>, "jkassan@fremont.gov" <jkassan@fremont.gov>, "tcox@fremont.gov" <tcox@fremont.gov>, "rsalwan@fremont.gov" <rsalwan@fremont.gov>, "tkeng@fremont.gov" <tkeng@fremont.gov>, "councilmemberjones@fremont.gov" <councilmemberjones@fremont.gov>, "yshao@fremont.gov" <yshao@fremont.gov>

Subject: Comments on EIR draft (Union City Station District Specific Plan)

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To whom it may concern,

This is Lama Peace of Purple Lotus Temple.

I am writing this letter to express my concern and comment on the upcoming Quarry Lake Parkway project.

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Wish Buddha bless all.

Best,
Lama Peace

From: wang chengen <wangchengen88@yahoo.com>
Date: Saturday, March 6, 2021 at 5:37 PM
To: Carmela Campbell <CarmelaC@UnionCity.Org>, Station District <StationDistrict@unioncity.org>, 'Dan Schoenholz' <dschoenholz@fremont.gov>
Cc: Carol Dutra-Vernaci <CarolD@UnionCity.Org>, "lmei@fremont.gov" <lmei@fremont.gov>, Emily Duncan <EmilyD@UnionCity.Org>, Jaime Patino <JaimeP@UnionCity.Org>, Pat Gacoscos <PatG@UnionCity.Org>, Gary Singh <GaryS@UnionCity.Org>, "jkassan@fremont.gov" <jkassan@fremont.gov>, "tcox@fremont.gov" <tcox@fremont.gov>, "rsalwan@fremont.gov" <rsalwan@fremont.gov>, "tkeng@fremont.gov" <tkeng@fremont.gov>, "councilmemberjones@fremont.gov" <councilmemberjones@fremont.gov>, "yshao@fremont.gov" <yshao@fremont.gov>
Subject: Comments on EIR draft (Union City Station District Specific Plan)

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To whom it may concern,

I am Wang Cheng En, a member of Purple Lotus Temple. I am also a local resident. I learned very recently that there is a major development project (Quarry Lake Parkway project) that is very close to the temple's border. It is a major concern to all of our members.

I have been with this Buddhist organization for a long time. We spent almost 20 years to raise funds to build this temple. It is not acceptable that we only learned this shocking news very recently. The Quarry Lake Parkway project will ruin the tranquility setting of the Temple that we devote to much to establish.

My ask to Union City and Fremont city government is to sincerely consider an alternative and develop a solution that balances all stakeholders' needs.

Wish Buddha bless all

Best
Wang Cheng En

B66

From: Sen Lian <liansen3137@gmail.com>

Sent: Saturday, March 6, 2021 5:43 PM

To: camelac@unioncity.org <camelac@unioncity.org>; Station District <StationDistrict@unioncity.org>; dschoenholz@fremont.gov <dschoenholz@fremont.gov>
Cc: caroid@unioncity.org <caroid@unioncity.org>; imei@fremont.gov <imei@fremont.gov>; Emily Duncan <EmilyD@UnionCity.Org>; Jaime Patino <JaimeP@UnionCity.Org>; Pat Gacoscos <PatG@UnionCity.Org>; Gary Singh <GaryS@UnionCity.Org>; jkassan@fremont.gov <jkassan@fremont.gov>; tcox@fremont.gov <tcox@fremont.gov>; rsalwan@fremont.gov <rsalwan@fremont.gov>; tkeng@fremont.gov <tkeng@fremont.gov>; councilmemberjones@fremont.gov <councilmemberjones@fremont.gov>; yshao@fremont.gov <yshao@fremont.gov>

Subject: Comments on EIR draft (Union City Station District Specific Plan)!

WARNING: External email. Please verify sender before opening attachments or clicking on links.

I am a member of Purple Lotus Temple. I am also a local resident. I learned very recently that there is a major development project (Quarry Lake Parkway project) that is very close to the temple's border. It is a major concern to all of our members.

I have been with this Buddhist organization for a long time. We spent almost 20 years to raise funds to build this temple. It is not acceptable that we only learned this shocking news very recently. The Quarry Lake Parkway project will ruin the tranquility setting of the Temple that we devote to much to establish.

My ask to Union City and Fremont city government is to sincerely consider an alternative and develop a solution that balances all stakeholders' needs.

Wish Buddha bless all

All the best,
Macy wang.

From: lama jean <lamaje@purplelotustemple.org>

Date: Saturday, March 6, 2021 at 5:44 PM

To: Carmela Campbell <CarmelaC@UnionCity.Org>, Station District <StationDistrict@unioncity.org>, 'Dan Schoenholz' <dschoenholz@fremont.gov>

Cc: Carol Dutra-Vernaci <CarolD@UnionCity.Org>, "lmei@fremont.gov" <lmei@fremont.gov>, Emily Duncan <EmilyD@UnionCity.Org>, Jaime Patino <JaimeP@UnionCity.Org>, Pat Gacoscos <PatG@UnionCity.Org>, Gary Singh <GaryS@UnionCity.Org>, "jkassan@fremont.gov" <jkassan@fremont.gov>, "tcox@fremont.gov" <tcox@fremont.gov>, "rsalwan@fremont.gov" <rsalwan@fremont.gov>, "tkeng@fremont.gov" <tkeng@fremont.gov>, "councilmemberjones@fremont.gov" <councilmemberjones@fremont.gov>, "yshao@fremont.gov" <yshao@fremont.gov>

Subject: Comments on EIR draft (Union City Station District Specific Plan)

WARNING: External email. Please verify sender before opening attachments or clicking on links.

To whom it may concern,

This is Lama Jean of Purple Lotus Temple.

I am writing this letter to express my concern and comment on the upcoming Quarry Lake Parkway project.

I am a Fremont resident and a stakeholder directly impacted by this project because this "highway" goes right through our temple border. The noise, traffic and dust caused by this development project will make it impossible to exercise our religious practice.

The COVID-19 is hard on everybody, especially on us as a nonprofit religious organization. Purple Lotus Temple 100% relies on members and worshipers to visit, practice teachings and donate to our cause. Our donation income dropped to less than 10% compared to the past. We are already in deficit. Quarry Lake Parkway construction will bring another devastating threat to the temple's on-going operation after the pandemic.

Purple Lotus Temple (PLT) has hundreds of thousands of international members who travel to visit us to enjoy the tranquility of the Temple's surroundings while practicing religious teaching. The Quarry Lake Parkway project will ruin the entire setting that PLT members devoted 30 years to build. It is not acceptable.

As a religious practitioner, we believe there must be a balance for all creatures to live in harmony. There must be an alternative solution that accommodates all parties' needs. I pray for Union City and Fremont city government and governing bodies on a higher level to work together to develop a better solution to maintain the balance.

Wish Buddha bless all.

Best,
Lama Jean

From: 法師蓮竟 <lianjintw@gmail.com>
Date: Saturday, March 6, 2021 at 8:55 PM
To: Carmela Campbell <CarmelaC@UnionCity.Org>, Station District <StationDistrict@unioncity.org>, 'Dan Schoenholz' <dschoenholz@fremont.gov>
Cc: Carol Dutra-Vernaci <CarolD@UnionCity.Org>, "lmei@fremont.gov" <lmei@fremont.gov>, Emily Duncan <EmilyD@UnionCity.Org>, Jaime Patino <JaimeP@UnionCity.Org>, Pat Gacoscos <PatG@UnionCity.Org>, Gary Singh <GaryS@UnionCity.Org>, "jkassan@fremont.gov" <jkassan@fremont.gov>, "tcx@fremont.gov" <tcx@fremont.gov>, "rsalwan@fremont.gov" <rsalwan@fremont.gov>, "tkeng@fremont.gov" <tkeng@fremont.gov>, "councilmemberjones@fremont.gov" <councilmemberjones@fremont.gov>, "yshao@fremont.gov" <yshao@fremont.gov>
Subject: Comments on EIR draft (Union City Station District Specific Plan)

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My ask to Union City and Fremont city government is to sincerely consider an alternative and develop a solution that balances all stakeholders' needs.

Wish Buddha bless all

Best

From: Gina Pacaldo <gpacaldo@nhusd.k12.ca.us>
Date: Saturday, March 6, 2021 at 11:59 PM
To: Carmela Campbell <CarmelaC@UnionCity.Org>
Cc: Nancy George <ngeorge@nhusd.k12.ca.us>
Subject: My concerns re: Quarry Corridor

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To All Concerned,

Though I've missed a 5:00 deadline today for the NOP Comment Period, I'll proceed with sharing my thoughts.

As Outreach Facilitator at the Union City Family Center, I cannot say that my opinion reflects our organization.

The following reflects my personal perspectives and experience as a Public Servant for over 30 years with New Haven Unified School District - primarily, at Decoto School, and then at Guy Emanuele, Jr. Elementary. As I'm a resident of Hayward, I've commuted to work all these years.

I admit that I've known of the project and intuitively have been skeptical. I've finally spent some time this evening to read and review as much as I can after a long day.

Even at this late stage in developmental plans, I am more skeptical than ever. Even so, I'm generally thankful for your sense of public service and for all the layers of work and time.

The scope of this project is big and complicated.

It appears that the Quarry Corridor is a "done deal."

Knowing that I'm not a lone voice, I join in with others to implore the leaders of Union City to scrutinize these plans and get back to the table to reimagine alternatives.

I am truly saddened to know that the City of Union City is "obliged" to sell precious land to a private developer that will profit "in perpetuity."

Future "residential developments" appear to perpetuate a system of leasing and rental agreements that presently are at exorbitant rates and will continue to be in 2050!

When a resident leases, they are never the "owners" and become beholden to paying increasing rates, while wages do not increase at the same levels.

The ratio of "below market" leases are disproportionate.

These "private developers" are the ones that ultimately profit. Not the families! Precious land sold to build the Quarry Corridor is antithetical to the sciences related to mitigating climate change.

Construction of the Quarry Corridor guarantees more pollution, and a constant noisy hum that is sure to impact peace of mind.

In my opinion, there are a few elements missing in your reports. Like including the science that land - like the Ramirez Farm - is proven to be a natural "carbon sequester" - reducing carbon in the atmosphere. Currently, the corn that is planted there is non-gmo corn from "traditional" corn seeds from Mexico.

What does it take to reimagine use of land to replenish the soil and grow organic food?

What is perceived as developing "a sense of place" is not the same as developing a vibrant healthy community.

What does it take to say no to these private "developers" - when we really don't know whether in fact, these leased units are buildings that promote a "healthy community."

As this pandemic proves, we are challenged to really re-evaluate and take into consideration many different challenges that undoubtedly will persist in high density living conditions.

Even with notions of returning to "normalcy," we are poised with re-considering "old" plans.

Wondering how many of these plans include visions of housing for a growing population of families that cannot afford the current rents?

Personally, I'm aware of families that live in some units near BART that don't even have one window!

I visualize that our future workforce will not be content with having to pay outrageous leases.

I am not convinced that developers are constructing energy efficient housing developments.

At both Cal and Stanford, professors and students have been researching and collaborating across disciplines and are designing structures that are built with earthquake resistant materials and are not laden with the least expensive materials - usually constructed with questionable "supply chains."

Just as President Biden recently ordered a thorough investigation of our supply chains, I recommend the same be done at a local level.

Two sentences embedded in one report that I read:

"There is reasonable potential that the project would result in less-than-significant environmental effects related to Aesthetics and Agriculture and Forestry Resource; and

"The analysis will focus on the reasonably foreseeable direct and indirect physical environmental effects that could result from implementation of the project.

I am hopeful that any decisions really take into deep consideration all those "less than significant environmental effects" and that the reports of the direct and indirect physical environmental effects will be "authentic" and not tainted by profit and a "developer's interpretation" of "sense of place."

There are interesting design models that are currently being evaluated with a set of "different lenses" around the county and country that may point to better ideas.

As I am a Grandmother of four, I too imagine the future of our children, and I trust that each and everyone simply asks ourselves - are we really planning for a sustainable future?

I empathize with the working teams - all of you that are being compensated to think through all these plans.

Asking you to think of your Grandchildren, and what do you visualize for them?

Simply, I believe that everyone at the decision making table needs to look closely and evaluate whether "the stakeholders" at the table truly represent an inclusive team - that is guided by visions of a more equitable and sustainable future. Union City is a truly diverse international community that merits a holistic vision for growth.

I appreciate your time and attention.

--

Mil Gracias! Gina

Gina V. Jórquez Pacaldo,
Outreach Facilitator
Union City Family Center
New Haven Unified School District
725 Whipple Road, Union City 94587
510.476.2770 Ext. 60819



Re: Comments on Notice of Preparation of Draft Environmental Impact Report for Union City Station District Specific Plan

Dear Carmela Campbell:

The Save Union City Hills' comments on the preparation of the Draft Environmental Impact Report for Union City Station District Specific Plan include: Consider Alternatives to not include the proposed Quarry Lakes Parkway, a highway connection to adjacent highways and Interstates. The Station will not provide more revenues with a vehicle-focused design. A town-center should have dense-housing closer to BART, not on farmland. A climate adaptive design which is not autofocused, retains farmland and open space at the Station's perimeter serving as a greenbelt buffer with trail connections to the urban town center.

Assess Feasible Alternatives and Mitigation Measures:

- Preserve the 35-acres of PUBLIC CALTRANS Land, Ramirez Farm, for agricultural use and plan housing closer to BART
- Preserve on site the 1884 Historic Peterson Farmhouse eligible for the National Register of Historic Places
- Restore Old Alameda Creek riparian on site, in situ, and provide Steelhead habitat per the San Francisco Estuary Institute recommendations
- Create riparian habitat to recharge the ground water basin rather than storm water retention ponds. Create a linear park and trail between Mission Boulevard and Old Alameda Creek to mitigate the Cities' growing, now 100-acre parkland deficit
- Establish climate change adaption and priority conservation areas | Ramirez farm, undeveloped land deserving special attention with real threats to ecological, agricultural, water, and natural resources. The City is failing to manage its land uses wisely.
- Establish a CAR FREE ZONE; not build Quarry Lakes Parkway designed to promote regional connections to improve access from I-880 to Mission Boulevard. This makes 3 connections near BART if you include Decoto and Whipple Roads.
- Provide a regional traffic analysis and identify regional connections such as Auto Mall Parkway connections to I-880 and I-680 to mitigate increased



traffic through Niles Canyon, SR 84 due to Decoto, Whipple and the proposed Quarry Lakes Parkway

- Significantly reduce 80 percent of vehicle miles travelled through town not originating from Union City. The City's 2040 General Plan Mobility Element forecast is 80% of out-of-town people are now driving through our community. It will get worse.

Assess the long-term economic and long-term sustainable costs:

- Consider not raising taxes public safety/sales/utility user taxes or not asking the voters to constantly increase our taxes. Higher taxes are a result of poor land use decisions
- Examine the Cities' economic development land use decisions AND examine projects to be cost-neutral and decrease public safety and city service costs over the life of any development project | STOP subsidizing developers
- Reduce promoting Union City as a commuter city with regional connections promoting vehicles passing through our community
- The planned Station District promotes driving. Assess walking, biking, and multi-modal solutions while not building more roads

Let us transform and reinvent OUR CITY as a destination and IMPROVE our quality of life to live, work, play and shop!

Respectfully,

Elizabeth Ames, Chair and District 6 BART Director
Cathy Keesee, Treasurer



From: ilu gwawa <ilugwawa@gmail.com>
Date: Sunday, March 7, 2021 at 4:50 AM
To: Carmela Campbell <CarmelaC@UnionCity.Org>, Station District <StationDistrict@unioncity.org>, 'Dan Schoenholz' <dschoenholz@fremont.gov>
Cc: Carol Dutra-Vernaci <CarolD@UnionCity.Org>, "lmei@fremont.gov" <lmei@fremont.gov>, Emily Duncan <EmilyD@UnionCity.Org>, Jaime Patino <JaimeP@UnionCity.Org>, Pat Gacoscos <PatG@UnionCity.Org>, Gary Singh <GaryS@UnionCity.Org>, "jkassan@fremont.gov" <jkassan@fremont.gov>, "tcox@fremont.gov" <tcox@fremont.gov>, "rsalwan@fremont.gov" <rsalwan@fremont.gov>, "tkeng@fremont.gov" <tkeng@fremont.gov>, "councilmemberjones@fremont.gov" <councilmemberjones@fremont.gov>, "yshao@fremont.gov" <yshao@fremont.gov>
Subject: PURPLE LOTUS TEMPLE

WARNING: External email. Please verify sender before opening attachments or clicking on links.

To whom it may concern,

I am a member of Purple Lotus Temple. I am also a local resident. I learned very recently that there is a major development project (Quarry Lake Parkway project) that is very close to the temple's border. It is a major concern to all of our members.

I have been with this Buddhist organization for a long time. We spent almost 20 years to raise funds to build this temple. It is not acceptable that we only learned this shocking news very recently. The Quarry Lake Parkway project will ruin the tranquility setting of the Temple that we devote to much to establish.

My ask to Union City and Fremont city government is to sincerely consider an alternative and develop a solution that balances all stakeholders' needs.

Wish Buddha bless all

Best

From: X G <zzxbbgg@gmail.com>
Date: Sunday, March 7, 2021 at 5:05 AM
To: Carmela Campbell <CarmelaC@UnionCity.Org>, Station District <StationDistrict@unioncity.org>, 'Dan Schoenholz' <dschoenholz@fremont.gov>
Cc: Carol Dutra-Vernaci <CarolD@UnionCity.Org>, "lmei@fremont.gov" <lmei@fremont.gov>, Emily Duncan <EmilyD@UnionCity.Org>, Jaime Patino <JaimeP@UnionCity.Org>, Pat Gacoscos <PatG@UnionCity.Org>, Gary Singh <GaryS@UnionCity.Org>, "jkassan@fremont.gov" <jkassan@fremont.gov>, "tcox@fremont.gov" <tcox@fremont.gov>, "rsalwan@fremont.gov" <rsalwan@fremont.gov>, "tkeng@fremont.gov" <tkeng@fremont.gov>, "councilmemberjones@fremont.gov" <councilmemberjones@fremont.gov>, "yshao@fremont.gov" <yshao@fremont.gov>
Subject: Quarry Lake Parkway project

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Sir/Madam

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Wish Buddha bless all

Best

From: 葫蘆 <tylwind@gmail.com>

Date: Sunday, March 7, 2021 at 5:11 AM

To: Station District <StationDistrict@unioncity.org>, 'Dan Schoenholz' <dschoenholz@fremont.gov>, Carmela Campbell <CarmelaC@UnionCity.Org>

Cc: Carol Dutra-Vernaci <CarolD@UnionCity.Org>, "lmei@fremont.gov" <lmei@fremont.gov>, Emily Duncan <EmilyD@UnionCity.Org>, Jaime Patino <JaimeP@UnionCity.Org>, Pat Gacoscos <PatG@UnionCity.Org>, Gary Singh <GaryS@UnionCity.Org>, "jkassan@fremont.gov" <jkassan@fremont.gov>, "tcx@fremont.gov" <tcx@fremont.gov>, "rsalwan@fremont.gov" <rsalwan@fremont.gov>, "tkeng@fremont.gov" <tkeng@fremont.gov>, "councilmemberjones@fremont.gov" <councilmemberjones@fremont.gov>, "yshao@fremont.gov" <yshao@fremont.gov>

Subject: re Quarry Lake Parkway project

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Best

From: gooiinn <gooiinn@gmail.com>
Date: Sunday, March 7, 2021 at 5:20 AM
To: Carmela Campbell <CarmelaC@UnionCity.Org>, Station District <StationDistrict@unioncity.org>, 'Dan Schoenholz' <dschoenholz@fremont.gov>
Cc: Carol Dutra-Vernaci <CarolD@UnionCity.Org>, "lmei@fremont.gov" <lmei@fremont.gov>, Emily Duncan <EmilyD@UnionCity.Org>, Jaime Patino <JaimeP@UnionCity.Org>, Pat Gacoscos <PatG@UnionCity.Org>, Gary Singh <GaryS@UnionCity.Org>, "jkassan@fremont.gov" <jkassan@fremont.gov>, "tcox@fremont.gov" <tcox@fremont.gov>, "rsalwan@fremont.gov" <rsalwan@fremont.gov>, "tkeng@fremont.gov" <tkeng@fremont.gov>, "councilmemberjones@fremont.gov" <councilmemberjones@fremont.gov>, "yshao@fremont.gov" <yshao@fremont.gov>
Subject: regarding Quarry Lake Parkway project

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Best

From: lianchun lianchun <lianchunfashi@gmail.com>
Sent: Sunday, March 7, 2021 9:02 AM
To: Carmela Campbell <CarmelaC@UnionCity.Org>; Station District <StationDistrict@unioncity.org>; dschoenholz@fremont.gov
Cc: Carol Dutra-Vernaci <CarolD@UnionCity.Org>; lmei@fremont.gov; Emily Duncan <EmilyD@UnionCity.Org>; Jaime Patino <JaimeP@UnionCity.Org>; Pat Gacoscos <PatG@UnionCity.Org>; Gary Singh <GaryS@UnionCity.Org>; jkassan@fremont.gov; tcx@fremont.gov; rsalwan@fremont.gov; tkeng@fremont.gov; councilmemberjones@fremont.gov; yshao@fremont.gov
Subject: Comments on EIR draft (Union City Station District Specific Plan)

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Wish Buddha bless all

Best

From: Marcia Pando <anothermedicinewheel@gmail.com>
Date: Monday, March 8, 2021 at 12:38 AM
To: Carmela Campbell <CarmelaC@UnionCity.Org>
Subject: Community Development

WARNING: External email. Please verify sender before opening attachments or clicking on links.

Dear Ms Campbell,

Please consider the residents of Union City where we have less parks for the city's population. Our city management has neglected the needs of the residents and is now doing more for the residents of other cities. We do not want the invasion of unwanted traffic through our city, local streets and Niles Canyon. We want farmland being used on the hillside. The land is for farmland and our city leaders want to neglect this. Please leave open space for us residents can have locally grown produce. Our hillsides don't need more buildings. Please allow this great city of Union City to be a place to raise healthy families. The Ramirez farm and the 1884 Peterson Farmhouse should be protected as they provide healthy food for us as well as beautiful land to watch as the seasons change. Shouldn't our community leaders consider all options instead of building on all open land.

I hope you consider saving open space and reserving areas for protection to combat climate change.

Why are our taxes being leveraged to subsidize developers to build more roads?

Please help Union City become a city to live, work, shop and play.

Please reevaluate local road alternatives. The Quarry Lakes Parkway, a new 4 lane expressway from I-880 and to our hills at Mission Blvd/Appian way LACKS foresight and does not create a walkable community in Fremont nor in Union City. We need to design for a walkable town center at BART.

Please consider an alternative for a linear park instead of a new 4 lane expressway. Please do not remove Ramirez farm and the 1884 Peterson farmhouse eligible from the National Register of Historical Places and create a City "GATEWAY" for housing and expressway. We see a sustainable future with less automobiles and more options for pedestrians, preservation of our culture and supporting other modes of transportation. Do better for us residents, for the future residents of Union City. My family has lived in Union City since 1940. We've seen the hills covered with gladiolus. Please do your best to fight for open space.

Kind Regards,
Marcia Pando

B77

On 3/8/21, 2:25 PM, "chicanaherstory@yahoo.com" <chicanaherstory@yahoo.com> wrote:

WARNING: External email. Please verify sender before opening attachments or clicking on links.

From the first time I met you at community meetings over plans for development in Union City, years ago, I implored the city to not develop every open space left in the city.

Since then, the increase of spare the air days has multiplied, fire seasons have turned into the deadliest air, our unprotected public suffered thru the past four years, to now the worst health pandemic the world has seen, and the worst economic crisis as well. Fossil fuel related deaths, and epidemic of asthma directly related to petroleum based economy sickens all who depend on clean air, clean water, clean environment.

Union City, just like so many other cities is stuck with business as usual, with a recklessness that shocks families endlessly. The failure of our current leadership to focus on environmental stewardship is not happening.

No to a freeway connector, no to housing development on Ramirez Farm, and no to hill development by Seven Hills.

Open space, parks, land conservation, for present and future generations should be priority . Set a precedent, give land acknowledgment and land back to original stewards, the Ohlone people.

So disgusted to see our city continually going with greedy interests, and not with people, land, air, and environment.

Protect and defend now and for the future should be the way of our leadership.

Going along with current plans, not an option

Decoto Hills protector, and open space , parks defender,

Maria Ramirez

B78

From: John Mathieu <mathieujohn@hotmail.com>
Date: Monday, March 8, 2021 at 6:28 PM
To: Carmela Campbell <CarmelaC@UnionCity.Org>
Subject: development.

WARNING: External email. Please verify sender before opening attachments or clicking on links.

Dear Madam,

My wife and I moved up here from LA about a decade ago. We moved here, not because it's affordable, it's not. We moved here because **of the natural beauty, and less pollution than Los Angeles. Please do an environmental assessment before making this place a worse place to live. (I'm on my phone and didn't make the print, bold with intent.)**

**Best regards,
John Mathieu
818-414-5191**

Sent from my T-Mobile 4G LTE Device

From: temi <1luckyruckus1@gmail.com>

Date: Monday, March 8, 2021 at 4:51 PM

To: Carmela Campbell <CarmelaC@UnionCity.Org>

Subject: East West Corridor plan. Union City Station District Specific comments

WARNING: External email. Please verify sender before opening attachments or clicking on links.

Dear Ms. Campbell,

I am aware of the corridor that's being considered and the areas that the corridor would circle and wind through. The Isherwood Way area- the Safeway Marketplace shopping center, the Niles district and the Brookvale Shopping Center are all accessible currently from any of those areas to any of the other areas mentioned, in 10 to 20 minutes when I travel by bicycle. In a automobile my travel time would be about 5 to 10 minutes to any of those areas from any of those areas. I believe the area would be better served by a linear park concept rather than the corridor considered. The Quarry Lakes area and its surrounding environment is an excellent location to walk, bike, skate, relax, and even photograph. A community linear park would conserve many resources as opposed to the large corridor being considered. I am also in favor of retaining the Ramirez farm and the historic Peterson farmhouse. Fremont historical appreciation runs deep. I was a Fremont resident for 35 years, 2 of those years residing in Mission San Jose district and 12 of those years residing in Niles district.

Respectfully,

Susan Moss

1luckyruckus1@gmail.com

B80

From: Michelle Powell <map117@comcast.net>

Date: Monday, March 8, 2021 at 4:41 PM

To: Carmela Campbell <CarmelaC@UnionCity.Org>, Station District
<StationDistrict@unioncity.org>

Subject: RE: Union City Station District Specific Plan Notice of Preparation Comments

WARNING: External email. Please verify sender before opening attachments or clicking on links.

Good afternoon,

I am very interested in the Plan developing a comprehensive traffic study that considers local and regional impacts to traffic. My greatest interest is a study of estimated traffic impacts on Alvarado-Niles Road and into Niles, onto Niles connectors to Mission Boulevard, and into the canyon. Niles is a community with limited ingress and egress options, and it would be helpful to know how traffic from the developments and the connector, including both regional and local trips, would be estimated to increase not just in the plan area, but beyond.

I believe the 37-acre Ramriez farm and historic 1884 Peterson farmhouse deserve preservation as part of a park and greenspace. Farms are such an important part of the Tri-Cities' heritage, and as dense housing is already planned for areas nearby, this could be a treasured area to provide a link to the past as well as visual and literal "breathing room" respite for current residents and those of the nearby developments to come. Especially with the changes society is experiencing with an increase in working from home that is likely to remain beyond the restrictions of COVID-19, providing space for residents, especially residents of higher-density housing, to be in touch with land and the outdoors will increase in importance. If there is an avenue to consider this preservation within Plan's scoping, I hope it will be included.

Sincerely,
Michelle Powell
Niles resident

B81

From: Lupe St Denis <lu4tahoe@aol.com>
Reply-To: Lupe St Denis <lu4tahoe@aol.com>
Date: Monday, March 8, 2021 at 4:39 PM
To: Carmela Campbell <CarmelaC@UnionCity.Org>
Subject: <no subject>

WARNING: External email. Please verify sender before opening attachments or clicking on links.

An expressway? Are you kidding? Making it easier for more traffic to invade our city is a bad idea. This will be people just passing through and not contributors to our economy. This city doesn't have a good track record of preservation of areas of unique interest, or historical value, e.g. Holly Sugar Mill, the first school house, the Mary Sa house and ranch, The Harvey House....shall I go on?

We have an opportunity to preserve a unique area of our city. We need visionary people imagining and creating spaces that we all can enjoy for years to come. Come on, put your thinking caps on!

Once this is done there will be no coming back.

Thank you
Lupe St.Denis

From: JAMES OROZCO <uconline@pacbell.net>

Date: Monday, March 8, 2021 at 3:13 PM

To: Carmela Campbell <CarmelaC@UnionCity.Org>

Cc: Carol Dutra-Vernaci <CarolD@UnionCity.Org>, Emily Duncan <EmilyD@UnionCity.Org>, Jaime Patino <JaimeP@UnionCity.Org>, Pat Gacoscos <PatG@UnionCity.Org>, Gary Singh <GaryS@UnionCity.Org>

Subject: Union City Station District Specific Plan Notice of Preparation Comments

WARNING: External email. Please verify sender before opening attachments or clicking on links.

Hello City Staff and Council Members,

In regards to the purchase of the Hwy. 84 land, I feel the City of Union City is financially extending beyond the city's budget. This will become a burden on the citizens of Union City. Believe me we are already over tax in the City and State I do not support the Union City Station District Plan in anyway. The citizens of Union City have spoken before and support open land. For some reason it comes to deaf ears of the city staff and current council members.

I support save the Ramirez Farm and the State owned Land be keep for open space.

Please, Keep promises of past elections and past Council Members and Serve your Citizens.

Sincerely,
James & Debbie Orozco
34804 Daisy St
Union City, CA 94587

B83

From: Deb Mathieu <mathieudeb1@gmail.com>
Sent: Monday, March 8, 2021 6:27 PM
To: Station District <StationDistrict@unioncity.org>
Subject:

WARNING: External email. Please verify sender before opening attachments or clicking on links.

Please don't eliminate the farm or develop the land in & near our hills.

The hills are a natural feature that everyone of us enjoys As They Are & one way or another. Once they are transformed there will not only be no going back, but likelihood of more destruction of our gift of nature.

Please prioritize keeping the hills and their surroundings pristine for today and for future generations.

Regards,

Deb Mathieu

B84

From: Amos Picker <apicker1000@gmail.com>

Sent: Monday, March 8, 2021 8:44 PM

To: Carmela Campbell <CarmelaC@UnionCity.Org>; Station District <StationDistrict@unioncity.org>

Subject: Ramirez Farms

WARNING: External email. Please verify sender before opening attachments or clicking on links.

There is no satisfaction or end or limit to greed and appetite of the city and county that is not listening to its people only to greed and ego.

We have enough here to house all the people who came to live here in peace and tranquility. but your greed and ego to be BIG, BIG and FAT s driving you to destroy the peace and harmony that shrouded this area.

The only remaining green piece of open space, land and flora within the Tri City Area, you plan to destroy with greed and the tax collection box. Generate another scrawling mess. All for the new taxes, new planning fees and new police generals that will adore your crown.

Stop, and look into the mirror and for once see who you are and what became of you and where are you going. Soon to be another big City with Homeless stretches of tents and gutters stinking of urine and feces. You are seeding the seed of destruction to the tranquility of this area. Your name shall be shrouded by the doom you bring.

Please vote noe, no, NO, ,

From: Marita Antonio <marita.antonio7@gmail.com>

Date: Tuesday, March 9, 2021 at 1:55 PM

To: Carmela Campbell <CarmelaC@UnionCity.Org>

Subject: Union City Station District Specific Plan Notice of Preparation Comments

WARNING: External email. Please verify sender before opening attachments or clicking on links.

Dear Ms. Campbell,

Please build an alternative for a Linear Park, NON-AUTOMOTIVE multimodal bike, cyclist parkway, and not an auto and truck dependent Quarry Lakes Parkway

1. Please preserve the 37-acre Ramriez farm and historic 1884 Peterson farmhouse – as part of our park, green space system. Do not remove this greenspace for an expressway and more housing.
2. Please consider Alternatives to new roads, a Highway 84 realignment project, otherwise known as the East West Connector proposal is not going to reduce our greenhouse gases. See how cities are walking and biking within 15 minutes to green spaces, by design, using linear parks and more. <https://www.geographyrealm.com/what-are-15-minute-cities>
3. Demand a thorough traffic study to identify local and regional traffic impacts of a realigned Highway 84 through Fremont and Union City. The traffic modeling for the East West Connector was amended to remove State Highway 84 impacts and forced the modeling to incorrectly focus on local trips. See page A-2 item 8 of the Memorandum of Understanding between the agencies. https://www.alamedactc.org/wp-content/uploads/2018/12/AppA_Memo_of_Understanding.pdf The community must understand Highway 84 traffic impacts which will only get worse over time.

Regards,
Marita Antonio

B86

From: Kyle Shanks <kyleshanks@yahoo.com>
Sent: Wednesday, March 10, 2021 9:11 PM
To: Carmela Campbell <CarmelaC@UnionCity.Org>
Cc: Jaime Patino <JaimeP@UnionCity.Org>
Subject: On Development of Agricultural Land

WARNING: External email. Please verify sender before opening attachments or clicking on links.

Hello Carmela,

I am a life long Bay Area resident with much of that time spent across the bay on the Mid-Penisula. I never had occasion to come to Union City, until I moved her a year and a half ago. I instantly took to it. What a hidden gem! With is rolling hills and it's underdeveloped feeling.

It is that underdeveloped and unpretentious feeling that makes it unique within the bay area, which has too much of both. There is more to life that ceaseless drive to develop empty lots and farm land. As such, I oppose whole heartedly any plan to place housing or infrastructure on the Ramirez farm. It is far more unique and valuable as is than as another one in a million roadway or town home community.

As a resident in the Decato area I'm coping Mr. Patino, who I believe represents the district.

CC the reset of the Union City and Fremont City Council.

Best,

Kyle Shanks

[Sent from Yahoo Mail for iPhone](#)

APPENDIX B: AIR QUALITY AND
GREENHOUSE GAS MODELING
MATERIALS

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A-1: Proposed Plan Operations AQ Emissions

2040 Full Buildout Operational Emissions

SUMMER Category	ROG	NO _x	CO	PM ₁₀ Total	PM _{2.5} Total
	Emissions (lb/day)				
Area	236.72	79.79	355.67	7.95	7.95
Energy	3.26	29.14	21.03	2.26	2.26
Mobile ¹	85.77	225.57	1149.35	614.30	156.18
Total	325.76	334.50	1526.05	624.50	166.39

WINTER Category	ROG	NO _x	CO	PM ₁₀ Total	PM _{2.5} Total
	Emissions (lb/day)				
Area	236.72	79.79	355.67	7.95	7.95
Energy	3.26	29.14	21.03	2.26	2.26
Mobile ¹	85.77	225.57	1149.35	614.30	156.18
Total	325.76	334.50	1526.05	624.50	166.39

MAXIMUM Category	ROG	NO _x	CO	PM ₁₀ Total	PM _{2.5} Total
	Emissions (lb/day)				
Area	236.72	79.79	355.67	7.95	7.95
Energy	3.26	29.14	21.03	2.26	2.26
Mobile ¹	85.77	225.57	1149.35	614.30	156.18
Project Emissions	325.76	334.50	1526.05	624.50	166.39
Existing Emissions to be Removed	12.40	3.27	2.80	0.25	0.25
Net Project Emissions	313.36	331.22	1523.25	624.25	166.14
BAAQMD Significance Thresholds	54	54		82	54
Exceeds Threshold?	Yes	Yes		Yes	Yes

1. Mobile emissions account for the removal of mobile emissions related to industrial land uses that are to be removed as part of the project. Mobile emissions in this table represent the project's net increase in mobile emissions.

Station District Specific Plan - 2040 Operations - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

**Station District Specific Plan - 2040 Operations
Bay Area AQMD Air District, Summer**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	4,767.00	1000sqft	109.44	4,767,000.00	0
Apartments Mid Rise	3,930.00	Dwelling Unit	103.42	3,930,000.00	9400
Regional Shopping Center	133.00	1000sqft	3.05	133,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	64
Climate Zone	4			Operational Year	2040
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	40.21	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 intensity factor extrapolated to be consistent with RPS requirements for year 2040.

Land Use - Project development would have a residential population of 9,400.

Construction Phase - Operations are only evaluated in this CalEEMod run.

Vehicle Trips - Mobile emissions were estimated outside of CalEEMod.

Woodstoves - The Proposed Plan would only install natural gas fireplaces, wood-burning devices of any kind are not allowed in new developments.

Station District Specific Plan - 2040 Operations - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberGas	589.50	3,930.00
tblFireplaces	NumberNoFireplace	157.20	0.00
tblFireplaces	NumberWood	668.10	0.00
tblLandUse	Population	11,240.00	9,400.00
tblProjectCharacteristics	CO2IntensityFactor	203.98	40.21
tblVehicleTrips	ST_TR	4.91	0.00
tblVehicleTrips	ST_TR	2.21	0.00
tblVehicleTrips	ST_TR	46.12	0.00
tblVehicleTrips	SU_TR	4.09	0.00
tblVehicleTrips	SU_TR	0.70	0.00
tblVehicleTrips	SU_TR	21.10	0.00
tblVehicleTrips	WD_TR	5.44	0.00
tblVehicleTrips	WD_TR	9.74	0.00
tblVehicleTrips	WD_TR	37.75	0.00
tblWoodstoves	NumberCatalytic	78.60	0.00
tblWoodstoves	NumberNoncatalytic	78.60	0.00

Station District Specific Plan - 2040 Operations - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	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	lb/day										lb/day					
Mitigated	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
Unmitigated	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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Regional Shopping Center	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.554371	0.060330	0.185934	0.122323	0.022029	0.006101	0.011187	0.006846	0.000892	0.000437	0.025991	0.000924	0.002633
General Office Building	0.554371	0.060330	0.185934	0.122323	0.022029	0.006101	0.011187	0.006846	0.000892	0.000437	0.025991	0.000924	0.002633
Regional Shopping Center	0.554371	0.060330	0.185934	0.122323	0.022029	0.006101	0.011187	0.006846	0.000892	0.000437	0.025991	0.000924	0.002633

Station District Specific Plan - 2040 Operations - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	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	lb/day										lb/day					
NaturalGas Mitigated	3.2642	29.1432	21.0332	0.1780		2.2552	2.2552		2.2552	2.2552		35,608.9033	35,608.9033	0.6825	0.6528	35,820.5092
NaturalGas Unmitigated	3.2642	29.1432	21.0332	0.1780		2.2552	2.2552		2.2552	2.2552		35,608.9033	35,608.9033	0.6825	0.6528	35,820.5092

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	90246.6	0.9733	8.3168	3.5391	0.0531		0.6724	0.6724		0.6724	0.6724		10,617.2449	10,617.2449	0.2035	0.1947	10,680.3379
General Office Building	211576	2.2817	20.7428	17.4239	0.1245		1.5765	1.5765		1.5765	1.5765		24,891.3457	24,891.3457	0.4771	0.4563	25,039.2625
Regional Shopping Center	852.658	9.2000e-003	0.0836	0.0702	5.0000e-004		6.3500e-003	6.3500e-003		6.3500e-003	6.3500e-003		100.3127	100.3127	1.9200e-003	1.8400e-003	100.9088
Total		3.2642	29.1432	21.0332	0.1781		2.2552	2.2552		2.2552	2.2552		35,608.9033	35,608.9033	0.6825	0.6528	35,820.5092

Station District Specific Plan - 2040 Operations - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Apartments Mid Rise	90.2466	0.9733	8.3168	3.5391	0.0531		0.6724	0.6724		0.6724	0.6724		10,617.2449	10,617.2449	0.2035	0.1947	10,680.3379
General Office Building	211.576	2.2817	20.7428	17.4239	0.1245		1.5765	1.5765		1.5765	1.5765		24,891.3457	24,891.3457	0.4771	0.4563	25,039.2625
Regional Shopping Center	0.852658	9.2000e-003	0.0836	0.0702	5.0000e-004		6.3500e-003	6.3500e-003		6.3500e-003	6.3500e-003		100.3127	100.3127	1.9200e-003	1.8400e-003	100.9088
Total		3.2642	29.1432	21.0332	0.1781		2.2552	2.2552		2.2552	2.2552		35,608.9033	35,608.9033	0.6825	0.6528	35,820.5092

Station District Specific Plan - 2040 Operations - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.0 Area Detail

6.1 Mitigation Measures Area

	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	lb/day										lb/day					
Mitigated	236.7217	79.7875	355.6675	0.5026		7.9491	7.9491		7.9491	7.9491	0.0000	97,679.0006	97,679.0006	2.4194	1.7801	98,269.9437
Unmitigated	236.7217	79.7875	355.6675	0.5026		7.9491	7.9491		7.9491	7.9491	0.0000	97,679.0006	97,679.0006	2.4194	1.7801	98,269.9437

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	lb/day										lb/day					
Architectural Coating	29.1591					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	188.9620					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	8.9003	76.0571	32.3647	0.4855		6.1493	6.1493		6.1493	6.1493	0.0000	97,094.1177	97,094.1177	1.8610	1.7801	97,671.0994
Landscaping	9.7003	3.7305	323.3028	0.0172		1.7998	1.7998		1.7998	1.7998		584.8829	584.8829	0.5585		598.8443
Total	236.7217	79.7875	355.6675	0.5026		7.9491	7.9491		7.9491	7.9491	0.0000	97,679.0006	97,679.0006	2.4194	1.7801	98,269.9437

Station District Specific Plan - 2040 Operations - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Architectural Coating	29.1591					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	188.9620					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	8.9003	76.0571	32.3647	0.4855		6.1493	6.1493		6.1493	6.1493	0.0000	97,094.1177	97,094.1177	1.8610	1.7801	97,671.0994
Landscaping	9.7003	3.7305	323.3028	0.0172		1.7998	1.7998		1.7998	1.7998		584.8829	584.8829	0.5585		598.8443
Total	236.7217	79.7875	355.6675	0.5026		7.9491	7.9491		7.9491	7.9491	0.0000	97,679.0006	97,679.0006	2.4194	1.7801	98,269.9437

Station District Specific Plan - 2040 Operations - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

Station District Specific Plan - 2040 Operations - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

**Station District Specific Plan - 2040 Operations
Bay Area AQMD Air District, Winter**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	4,767.00	1000sqft	109.44	4,767,000.00	0
Apartments Mid Rise	3,930.00	Dwelling Unit	103.42	3,930,000.00	9400
Regional Shopping Center	133.00	1000sqft	3.05	133,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	64
Climate Zone	4			Operational Year	2040
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	40.21	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 intensity factor extrapolated to be consistent with RPS requirements for year 2040.

Land Use - Project development would have a residential population of 9,400.

Construction Phase - Operations are only evaluated in this CalEEMod run.

Vehicle Trips - Mobile emissions were estimated outside of CalEEMod.

Woodstoves - The Proposed Plan would only install natural gas fireplaces, wood-burning devices of any kind are not allowed in new developments.

Station District Specific Plan - 2040 Operations - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberGas	589.50	3,930.00
tblFireplaces	NumberNoFireplace	157.20	0.00
tblFireplaces	NumberWood	668.10	0.00
tblLandUse	Population	11,240.00	9,400.00
tblProjectCharacteristics	CO2IntensityFactor	203.98	40.21
tblVehicleTrips	ST_TR	4.91	0.00
tblVehicleTrips	ST_TR	2.21	0.00
tblVehicleTrips	ST_TR	46.12	0.00
tblVehicleTrips	SU_TR	4.09	0.00
tblVehicleTrips	SU_TR	0.70	0.00
tblVehicleTrips	SU_TR	21.10	0.00
tblVehicleTrips	WD_TR	5.44	0.00
tblVehicleTrips	WD_TR	9.74	0.00
tblVehicleTrips	WD_TR	37.75	0.00
tblWoodstoves	NumberCatalytic	78.60	0.00
tblWoodstoves	NumberNoncatalytic	78.60	0.00

Station District Specific Plan - 2040 Operations - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	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	lb/day										lb/day					
Mitigated	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
Unmitigated	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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT	Mitigated Annual VMT
	Weekday	Saturday	Sunday		
Apartments Mid Rise	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Regional Shopping Center	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.554371	0.060330	0.185934	0.122323	0.022029	0.006101	0.011187	0.006846	0.000892	0.000437	0.025991	0.000924	0.002633
General Office Building	0.554371	0.060330	0.185934	0.122323	0.022029	0.006101	0.011187	0.006846	0.000892	0.000437	0.025991	0.000924	0.002633
Regional Shopping Center	0.554371	0.060330	0.185934	0.122323	0.022029	0.006101	0.011187	0.006846	0.000892	0.000437	0.025991	0.000924	0.002633

Station District Specific Plan - 2040 Operations - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	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	lb/day										lb/day					
NaturalGas Mitigated	3.2642	29.1432	21.0332	0.1780		2.2552	2.2552		2.2552	2.2552		35,608.9033	35,608.9033	0.6825	0.6528	35,820.5092
NaturalGas Unmitigated	3.2642	29.1432	21.0332	0.1780		2.2552	2.2552		2.2552	2.2552		35,608.9033	35,608.9033	0.6825	0.6528	35,820.5092

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	90246.6	0.9733	8.3168	3.5391	0.0531		0.6724	0.6724		0.6724	0.6724		10,617.2449	10,617.2449	0.2035	0.1947	10,680.3379
General Office Building	211576	2.2817	20.7428	17.4239	0.1245		1.5765	1.5765		1.5765	1.5765		24,891.3457	24,891.3457	0.4771	0.4563	25,039.2625
Regional Shopping Center	852.658	9.2000e-003	0.0836	0.0702	5.0000e-004		6.3500e-003	6.3500e-003		6.3500e-003	6.3500e-003		100.3127	100.3127	1.9200e-003	1.8400e-003	100.9088
Total		3.2642	29.1432	21.0332	0.1781		2.2552	2.2552		2.2552	2.2552		35,608.9033	35,608.9033	0.6825	0.6528	35,820.5092

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Apartments Mid Rise	90.2466	0.9733	8.3168	3.5391	0.0531		0.6724	0.6724		0.6724	0.6724		10,617.2449	10,617.2449	0.2035	0.1947	10,680.3379
General Office Building	211.576	2.2817	20.7428	17.4239	0.1245		1.5765	1.5765		1.5765	1.5765		24,891.3457	24,891.3457	0.4771	0.4563	25,039.2625
Regional Shopping Center	0.852658	9.2000e-003	0.0836	0.0702	5.0000e-004		6.3500e-003	6.3500e-003		6.3500e-003	6.3500e-003		100.3127	100.3127	1.9200e-003	1.8400e-003	100.9088
Total		3.2642	29.1432	21.0332	0.1781		2.2552	2.2552		2.2552	2.2552		35,608.9033	35,608.9033	0.6825	0.6528	35,820.5092

Station District Specific Plan - 2040 Operations - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.0 Area Detail

6.1 Mitigation Measures Area

	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	lb/day										lb/day					
Mitigated	236.7217	79.7875	355.6675	0.5026		7.9491	7.9491		7.9491	7.9491	0.0000	97,679.0006	97,679.0006	2.4194	1.7801	98,269.9437
Unmitigated	236.7217	79.7875	355.6675	0.5026		7.9491	7.9491		7.9491	7.9491	0.0000	97,679.0006	97,679.0006	2.4194	1.7801	98,269.9437

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	lb/day										lb/day					
Architectural Coating	29.1591					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	188.9620					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	8.9003	76.0571	32.3647	0.4855		6.1493	6.1493		6.1493	6.1493	0.0000	97,094.1177	97,094.1177	1.8610	1.7801	97,671.0994
Landscaping	9.7003	3.7305	323.3028	0.0172		1.7998	1.7998		1.7998	1.7998		584.8829	584.8829	0.5585		598.8443
Total	236.7217	79.7875	355.6675	0.5026		7.9491	7.9491		7.9491	7.9491	0.0000	97,679.0006	97,679.0006	2.4194	1.7801	98,269.9437

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Architectural Coating	29.1591					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	188.9620					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	8.9003	76.0571	32.3647	0.4855		6.1493	6.1493		6.1493	6.1493	0.0000	97,094.117	97,094.117	1.8610	1.7801	97,671.099
												7	7			4
Landscaping	9.7003	3.7305	323.3028	0.0172		1.7998	1.7998		1.7998	1.7998		584.8829	584.8829	0.5585		598.8443
Total	236.7217	79.7875	355.6675	0.5026		7.9491	7.9491		7.9491	7.9491	0.0000	97,679.000	97,679.000	2.4194	1.7801	98,269.943
												6	6			7

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

A-2: Proposed Plan Operations GHG Emissions

Project Operations GHG Summary

Source Category	MTCO₂e/year
Area	542
Electricity	1,885
Natural Gas	5,930
Mobile ¹	101,760
Waste	3,209
Water	1,677
Project Total	115,004
Existing Emissions to be Removed	1,522
Net Project Total	113,482

1. Mobile emissions account for the removal of mobile emissions related to industrial land uses that are to be removed as part of the project. Mobile emissions in this table represent the project's net increase in mobile emissions.

Station District Specific Plan - 2040 Operations - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

**Station District Specific Plan - 2040 Operations
Bay Area AQMD Air District, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	4,767.00	1000sqft	109.44	4,767,000.00	0
Apartments Mid Rise	3,930.00	Dwelling Unit	103.42	3,930,000.00	9400
Regional Shopping Center	133.00	1000sqft	3.05	133,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	64
Climate Zone	4			Operational Year	2040
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	40.21	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 intensity factor extrapolated to be consistent with RPS requirements for year 2040.

Land Use - Project development would have a residential population of 9,400.

Construction Phase - Operations are only evaluated in this CalEEMod run.

Vehicle Trips - Mobile emissions were estimated outside of CalEEMod.

Woodstoves - The Proposed Plan would only install natural gas fireplaces, wood-burning devices of any kind are not allowed in new developments.

Station District Specific Plan - 2040 Operations - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberGas	589.50	3,930.00
tblFireplaces	NumberNoFireplace	157.20	0.00
tblFireplaces	NumberWood	668.10	0.00
tblLandUse	Population	11,240.00	9,400.00
tblProjectCharacteristics	CO2IntensityFactor	203.98	40.21
tblVehicleTrips	ST_TR	4.91	0.00
tblVehicleTrips	ST_TR	2.21	0.00
tblVehicleTrips	ST_TR	46.12	0.00
tblVehicleTrips	SU_TR	4.09	0.00
tblVehicleTrips	SU_TR	0.70	0.00
tblVehicleTrips	SU_TR	21.10	0.00
tblVehicleTrips	WD_TR	5.44	0.00
tblVehicleTrips	WD_TR	9.74	0.00
tblVehicleTrips	WD_TR	37.75	0.00
tblWoodstoves	NumberCatalytic	78.60	0.00
tblWoodstoves	NumberNoncatalytic	78.60	0.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated 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	40.7297	0.7594	29.2775	4.2500e-003		0.1962	0.1962		0.1962	0.1962	0.0000	538.3721	538.3721	0.0550	8.9900e-003	542.4275
Energy	0.5957	5.3186	3.8386	0.0325		0.4116	0.4116		0.4116	0.4116	0.0000	7,690.6461	7,690.6461	1.5863	0.2867	7,815.7297
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
Waste						0.0000	0.0000		0.0000	0.0000	1,295.2366	0.0000	1,295.2366	76.5463	0.0000	3,208.8939
Water						0.0000	0.0000		0.0000	0.0000	353.1555	153.6988	506.8543	36.3986	0.8718	1,676.6040
Total	41.3254	6.0780	33.1161	0.0367	0.0000	0.6078	0.6078	0.0000	0.6078	0.6078	1,648.3921	8,382.7171	10,031.1092	114.5862	1.1674	13,243.6551

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	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	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
Unmitigated	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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Regional Shopping Center	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.554371	0.060330	0.185934	0.122323	0.022029	0.006101	0.011187	0.006846	0.000892	0.000437	0.025991	0.000924	0.002633
General Office Building	0.554371	0.060330	0.185934	0.122323	0.022029	0.006101	0.011187	0.006846	0.000892	0.000437	0.025991	0.000924	0.002633
Regional Shopping Center	0.554371	0.060330	0.185934	0.122323	0.022029	0.006101	0.011187	0.006846	0.000892	0.000437	0.025991	0.000924	0.002633

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	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					
Electricity Mitigated							0.0000	0.0000		0.0000	0.0000	1,795.1928	1,795.1928	1.4733	0.1786	1,885.2427
Electricity Unmitigated							0.0000	0.0000		0.0000	0.0000	1,795.1928	1,795.1928	1.4733	0.1786	1,885.2427
NaturalGas Mitigated	0.5957	5.3186	3.8386	0.0325		0.4116	0.4116		0.4116	0.4116	0.0000	5,895.4533	5,895.4533	0.1130	0.1081	5,930.4870
NaturalGas Unmitigated	0.5957	5.3186	3.8386	0.0325		0.4116	0.4116		0.4116	0.4116	0.0000	5,895.4533	5,895.4533	0.1130	0.1081	5,930.4870

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	3.294e+007	0.1776	1.5178	0.6459	9.6900e-003		0.1227	0.1227		0.1227	0.1227	0.0000	1,757.8040	1,757.8040	0.0337	0.0322	1,768.2497
General Office Building	7.72254e+007	0.4164	3.7856	3.1799	0.0227		0.2877	0.2877		0.2877	0.2877	0.0000	4,121.0414	4,121.0414	0.0790	0.0756	4,145.5307
Regional Shopping Center	311220	1.6800e-003	0.0153	0.0128	9.0000e-005		1.1600e-003	1.1600e-003		1.1600e-003	1.1600e-003	0.0000	16.6079	16.6079	3.2000e-004	3.0000e-004	16.7066
Total		0.5957	5.3186	3.8386	0.0325		0.4116	0.4116		0.4116	0.4116	0.0000	5,895.4533	5,895.4533	0.1130	0.1081	5,930.4870

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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	3.294e+007	0.1776	1.5178	0.6459	9.6900e-003		0.1227	0.1227		0.1227	0.1227	0.0000	1,757.8040	1,757.8040	0.0337	0.0322	1,768.2497
General Office Building	7.72254e+007	0.4164	3.7856	3.1799	0.0227		0.2877	0.2877		0.2877	0.2877	0.0000	4,121.0414	4,121.0414	0.0790	0.0756	4,145.5307
Regional Shopping Center	311220	1.6800e-003	0.0153	0.0128	9.0000e-005		1.1600e-003	1.1600e-003		1.1600e-003	1.1600e-003	0.0000	16.6079	16.6079	3.2000e-004	3.0000e-004	16.7066
Total		0.5957	5.3186	3.8386	0.0325		0.4116	0.4116		0.4116	0.4116	0.0000	5,895.4533	5,895.4533	0.1130	0.1081	5,930.4870

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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	1.51951e+007	277.1421	0.2275	0.0276	291.0440
General Office Building	8.18494e+007	1,492.8469	1.2252	0.1485	1,567.7305
Regional Shopping Center	1.38187e+006	25.2039	0.0207	2.5100e-003	26.4681
Total		1,795.1928	1.4733	0.1786	1,885.2427

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.51951e+007	277.1421	0.2275	0.0276	291.0440
General Office Building	8.18494e+007	1,492.8469	1.2252	0.1485	1,567.7305
Regional Shopping Center	1.38187e+006	25.2039	0.0207	2.5100e-003	26.4681
Total		1,795.1928	1.4733	0.1786	1,885.2427

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.0 Area Detail

6.1 Mitigation Measures Area

	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	40.7297	0.7594	29.2775	4.2500e-003		0.1962	0.1962		0.1962	0.1962	0.0000	538.3721	538.3721	0.0550	8.9900e-003	542.4275
Unmitigated	40.7297	0.7594	29.2775	4.2500e-003		0.1962	0.1962		0.1962	0.1962	0.0000	538.3721	538.3721	0.0550	8.9900e-003	542.4275

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	5.3215					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	34.4856					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0496	0.4236	0.1803	2.7000e-003		0.0343	0.0343		0.0343	0.0343	0.0000	490.6184	490.6184	9.4000e-003	8.9900e-003	493.5339
Landscaping	0.8730	0.3357	29.0973	1.5400e-003		0.1620	0.1620		0.1620	0.1620	0.0000	47.7537	47.7537	0.0456	0.0000	48.8936
Total	40.7297	0.7594	29.2775	4.2400e-003		0.1962	0.1962		0.1962	0.1962	0.0000	538.3721	538.3721	0.0550	8.9900e-003	542.4275

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	5.3215					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	34.4856					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0496	0.4236	0.1803	2.7000e-003		0.0343	0.0343		0.0343	0.0343	0.0000	490.6184	490.6184	9.4000e-003	8.9900e-003	493.5339	
Landscaping	0.8730	0.3357	29.0973	1.5400e-003		0.1620	0.1620		0.1620	0.1620	0.0000	47.7537	47.7537	0.0456	0.0000	48.8936	
Total	40.7297	0.7594	29.2775	4.2400e-003		0.1962	0.1962		0.1962	0.1962	0.0000	538.3721	538.3721	0.0550	8.9900e-003	542.4275	

Station District Specific Plan - 2040 Operations - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	506.8543	36.3986	0.8718	1,676.6040
Unmitigated	506.8543	36.3986	0.8718	1,676.6040

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	256.055 / 161.426	116.8097	8.3728	0.2006	385.8923
General Office Building	847.257 / 519.286	385.5614	27.7037	0.6635	1,275.8762
Regional Shopping Center	9.85165 / 6.03811	4.4832	0.3221	7.7100e-003	14.8355
Total		506.8543	36.3986	0.8718	1,676.6040

Station District Specific Plan - 2040 Operations - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	256.055 / 161.426	116.8097	8.3728	0.2006	385.8923
General Office Building	847.257 / 519.286	385.5614	27.7037	0.6635	1,275.8762
Regional Shopping Center	9.85165 / 6.03811	4.4832	0.3221	7.7100e-003	14.8355
Total		506.8543	36.3986	0.8718	1,676.6040

Station District Specific Plan - 2040 Operations - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1,295.2366	76.5463	0.0000	3,208.8939
Unmitigated	1,295.2366	76.5463	0.0000	3,208.8939

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	1807.8	366.9671	21.6871	0.0000	909.1454
General Office Building	4433.31	899.9219	53.1839	0.0000	2,229.5183
Regional Shopping Center	139.65	28.3477	1.6753	0.0000	70.2302
Total		1,295.2366	76.5463	0.0000	3,208.8939

Station District Specific Plan - 2040 Operations - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	1807.8	366.9671	21.6871	0.0000	909.1454
General Office Building	4433.31	899.9219	53.1839	0.0000	2,229.5183
Regional Shopping Center	139.65	28.3477	1.6753	0.0000	70.2302
Total		1,295.2366	76.5463	0.0000	3,208.8939

Station District Specific Plan - 2040 Operations - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

**A-3: Proposed Plan Operations AQ/GHG
Mobile Emissions**

MOBILE EMISSIONS

Scenario Year / EF Year ⁵	Daily Trips ⁴	Daily VMT (miles) ⁴	Days per Year ⁴	Running Exhaust Emission Factor (g/mile) ^{1,2,7}												
				ROG	NO _x	CO	SO _x	PM ₁₀ Fugitive	PM ₁₀ Exhaust	PM ₁₀ Total	PM _{2.5} Fugitive	PM _{2.5} Exhaust	PM _{2.5} Total	CO ₂	CH ₄	N ₂ O
2040	56,660	856,834	347	0.0074	0.0869	0.4747	0.0030	0.3232	0.0019	0.3251	0.0808	0.0018	0.0826	330.8202	0.0036	0.0149

Notes:

1. Emission factors represent weighted emission factor for entire fleet (includes all vehicle categories). Emission factors generated from EMFAC2021; County: Alameda; Season: Annual; Vehicle Categories: EMFAC2007; Model Year: Aggregate; Speed: Aggregate; Fuel: All fuel types.
 2. Running emission factors account for exhaust and fugitive dust from brake wear, tire wear, and road dust from paved roads.
 3. Non-running emission factors account for additional exhaust and evaporative processes. Exhaust: Engine idling and starting. Evaporative: Runloss, Diurnal, Hotsoak (ROG only).
 4. Value provided by Fehr & Peers
 5. Emissions based on project buildout year of 2040.
 6. Global Warming Potentials based on IPCC AR4.
 7. Emission factors account for SAFE Rule Adjustment Factors
- EF = Emission Factor

MOBILE EMISSIONS

Scenario Year / EF Year ⁵	Daily Trips ⁴	Daily VMT (miles) ⁴	Days per Year ⁴	Non-Running Emission Factors (g/trip) ^{1,3,7}												
				ROG	NO _x	CO	SO _x	PM ₁₀ Fugitive	PM ₁₀ Exhaust	PM ₁₀ Total	PM _{2.5} Fugitive	PM _{2.5} Exhaust	PM _{2.5} Total	CO ₂	CH ₄	N ₂ O
2040	56,660	856,834	347	0.5749	0.4917	2.0230	0.0008	0.0000	0.0010	0.0010	0.0000	0.0009	0.0009	94.5469	0.0401	0.0292

Notes:

1. Emission factors represent weighted emission factor for entire fleet (includes all vehicle categories). Emission factors generated from EMFAC2021; County: Alameda; Season: Annual; Vehicle Categories: EMFAC2007; Model Year: Aggregate; Speed: Aggregate; Fuel: All fuel types.
 2. Running emission factors account for exhaust and fugitive dust from brake wear, tire wear, and road dust from paved roads.
 3. Non-running emission factors account for additional exhaust and evaporative processes. Exhaust: Engine idling and starting. Evaporative: Runloss, Diurnal, Hotsoak (ROG only).
 4. Value provided by Fehr & Peers
 5. Emissions based on project buildout year of 2040.
 6. Global Warming Potentials based on IPCC AR4.
 7. Emission factors account for SAFE Rule Adjustment Factors
- EF = Emission Factor

MOBILE EMISSIONS

Scenario Year / EF Year ⁵	Daily Trips ⁴	Daily VMT (miles) ⁴	Days per Year ⁴	Daily Emissions (lb/day)												
				ROG	NO _x	CO	SO _x	PM ₁₀ Fugitive	PM ₁₀ Exhaust	PM ₁₀ Total	PM _{2.5} Fugitive	PM _{2.5} Exhaust	PM _{2.5} Total	CO ₂	CH ₄	N ₂ O
2040	56,660	856,834	347	85.77	225.57	1,149.35	5.72	610.61	3.69	614.30	152.69	3.49	156.18	636,728.73	11.73	31.88

Notes:

1. Emission factors represent weighted emission factor for entire fleet (includes all vehicle categories). Emission factors generated from EMFAC2021; County: Alameda; Season: Annual; Vehicle Categories: EMFAC2007; Model Year: Aggregate; Speed: Aggregate; Fuel: All fuel types.
 2. Running emission factors account for exhaust and fugitive dust from brake wear, tire wear, and road dust from paved roads.
 3. Non-running emission factors account for additional exhaust and evaporative processes. Exhaust: Engine idling and starting. Evaporative: Runloss, Diurnal, Hotsoak (ROG only).
 4. Value provided by Fehr & Peers
 5. Emissions based on project buildout year of 2040.
 6. Global Warming Potentials based on IPCC AR4.
 7. Emission factors account for SAFE Rule Adjustment Factors
- EF = Emission Factor

MOBILE EMISSIONS

Scenario Year / EF Year ⁵	Daily Trips ⁴	Daily VMT (miles) ⁴	Days per Year ⁴	Annual Metric Tons ⁶			
				CO ₂	CH ₄	N ₂ O	CO ₂ e
2040	56,660	856,834	347	100,219.03	1.85	5.02	101,760.47

Notes:

1. Emission factors represent weighted emission factor for entire fleet (includes all vehicle categories). Emission factors generated from EMFAC2021; County: Alameda; Season: Annual; Vehicle Categories: EMFAC2007; Model Year: Aggregate; Speed: Aggregate; Fuel: All fuel types.
 2. Running emission factors account for exhaust and fugitive dust from brake wear, tire wear, and road dust from paved roads.
 3. Non-running emission factors account for additional exhaust and evaporative processes. Exhaust: Engine idling and starting. Evaporative: Runloss, Diurnal, Hotsoak (ROG only).
 4. Value provided by Fehr & Peers
 5. Emissions based on project buildout year of 2040.
 6. Global Warming Potentials based on IPCC AR4.
 7. Emission factors account for SAFE Rule Adjustment Factors
- EF = Emission Factor

Year
2040

Fleet Mix	Safe Rule	Vehicle Category	Fuel	Population	VMT (miles/day)	Trips (trips/day)
4.29%		HHDT	Diesel	16775.36	2149333.43	275436.40
0.67%		HHDT	Electricity	3314.49	335774.88	43941.50
0.00%		HHDT	Gasoline	2.26	203.20	45.21
0.14%		HHDT	Natural Gas	1143.79	70464.22	12060.55
0.03%		LDA	Diesel	460.35	13843.29	1984.55
6.00%		LDA	Electricity	74921.02	3004784.20	351159.67
41.10%	SAFE	LDA	Gasoline	550914.66	20571912.23	2554762.35
1.97%		LDA	Plug-in Hybrid	25709.22	986140.92	106307.63
0.00%		LDT1	Diesel	0.37	14.55	1.73
0.08%		LDT1	Electricity	878.00	37637.08	4208.47
2.68%	SAFE	LDT1	Gasoline	38044.95	1340638.86	170625.40
0.06%		LDT1	Plug-in Hybrid	671.97	28108.83	2778.59
0.08%		LDT2	Diesel	1107.36	42443.47	5148.80
0.60%		LDT2	Electricity	10206.41	300561.12	48837.27
22.37%	SAFE	LDT2	Gasoline	296287.80	11196821.15	1367849.58
0.58%		LDT2	Plug-in Hybrid	7287.00	291670.87	30131.76
0.66%		LHDT1	Diesel	9121.82	328745.91	114741.06
0.99%		LHDT1	Electricity	10160.10	495392.25	142447.29
1.08%		LHDT1	Gasoline	15233.85	538094.54	226961.71
0.31%		LHDT2	Diesel	4395.40	152984.11	55288.63
0.24%		LHDT2	Electricity	2525.03	118903.20	33436.31
0.13%		LHDT2	Gasoline	1858.28	63414.27	27685.54
0.33%		MCY	Gasoline	28981.57	165811.22	57963.13
0.14%		MDV	Diesel	1901.62	68920.10	8706.32
0.55%		MDV	Electricity	9423.93	274631.42	44933.96
12.49%	SAFE	MDV	Gasoline	169284.77	6250072.69	778199.81
0.36%		MDV	Plug-in Hybrid	4546.01	179072.59	18797.74
0.02%		MH	Diesel	937.03	9571.47	93.70
0.04%		MH	Gasoline	1563.41	17706.89	156.40
0.93%		MHDT	Diesel	12003.13	463728.47	146760.20
0.65%		MHDT	Electricity	6933.33	323663.64	89350.89
0.10%		MHDT	Gasoline	995.24	48269.09	19912.82
0.02%		MHDT	Natural Gas	219.47	8542.74	2293.02
0.06%		OBUS	Diesel	437.27	29792.44	5187.88
0.01%		OBUS	Electricity	93.03	6960.77	1861.28
0.02%		OBUS	Gasoline	310.25	9931.83	6207.53
0.00%		OBUS	Natural Gas	5.70	330.80	50.73
0.01%		SBUS	Diesel	362.77	7073.82	5252.87
0.01%		SBUS	Electricity	151.54	5331.05	1666.36
0.01%		SBUS	Gasoline	104.58	5597.44	418.33
0.00%		SBUS	Natural Gas	27.11	520.44	392.58
0.03%		UBUS	Diesel	135.73	14437.04	542.94
0.14%		UBUS	Electricity	652.20	69182.39	2608.81
0.04%		UBUS	Gasoline	245.21	20425.59	980.82
0.01%		UBUS	Natural Gas	54.84	5833.42	219.38

100.00%

1

Year
2040

Year
2040

Vehicle Category	Fuel	Non-Running EF (g/trip)													
		ROG_STREX	ROG_HOTSOAK	ROG_RUNLOSS	NOx_STREX	CO_STREX	SOx_STREX	PM10_STREX	PM2.5_STREX	CO2_STREX	CH4_STREX	N2O_STREX	TOG_STREX	TOG_HOTSOAK	TOG_RUNLOSS
HHDT	Diesel	0.00E+00	0.00E+00	0.00E+00	2.68E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
HHDT	Electricity	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
HHDT	Gasoline	4.58E-04	2.43E-02	3.06E-01	4.43E-02	4.01E+00	4.47E-04	4.68E-04	4.30E-04	4.52E+01	8.53E-05	2.42E-03	5.01E-04	2.43E-02	3.06E-01
HHDT	Natural Gas	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
LDA	Diesel	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
LDA	Electricity	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
LDA	Gasoline	1.43E-01	4.43E-02	1.67E-01	1.77E-01	1.86E+00	5.66E-04	1.01E-03	9.31E-04	6.39E+01	3.62E-02	2.64E-02	1.58E-01	4.51E-02	1.70E-01
LDA	Plug-in Hybrid	1.76E-01	4.15E-02	8.76E-02	1.17E-01	1.37E+00	5.83E-04	1.03E-03	9.43E-04	5.90E+01	4.12E-02	1.92E-02	1.92E-01	4.15E-02	8.76E-02
LDT1	Diesel	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
LDT1	Electricity	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
LDT1	Gasoline	1.80E-01	7.13E-02	2.78E-01	2.05E-01	2.13E+00	6.72E-04	1.21E-03	1.11E-03	7.59E+01	4.32E-02	2.88E-02	1.99E-01	7.25E-02	2.83E-01
LDT1	Plug-in Hybrid	1.76E-01	2.84E-02	3.69E-02	1.17E-01	1.37E+00	6.61E-04	8.46E-04	7.78E-04	6.69E+01	4.16E-02	1.97E-02	1.92E-01	2.84E-02	3.69E-02
LDT2	Diesel	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
LDT2	Electricity	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
LDT2	Gasoline	1.89E-01	4.77E-02	1.83E-01	2.22E-01	2.36E+00	7.11E-04	1.04E-03	9.53E-04	8.04E+01	4.63E-02	3.14E-02	2.09E-01	4.85E-02	1.87E-01
LDT2	Plug-in Hybrid	1.76E-01	3.23E-02	5.26E-02	1.17E-01	1.37E+00	7.14E-04	9.10E-04	8.36E-04	7.22E+01	4.14E-02	1.95E-02	1.92E-01	3.23E-02	5.26E-02
LHDT1	Diesel	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
LHDT1	Electricity	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
LHDT1	Gasoline	1.00E-01	2.41E-02	1.89E-01	4.44E-01	3.23E+00	2.38E-04	1.27E-04	1.17E-04	2.41E+01	2.21E-02	4.12E-02	1.10E-01	2.41E-02	1.89E-01
LHDT2	Diesel	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
LHDT2	Electricity	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
LHDT2	Gasoline	8.97E-02	2.63E-02	2.11E-01	4.17E-01	3.28E+00	2.34E-04	1.03E-04	9.46E-05	2.37E+01	2.00E-02	3.84E-02	9.82E-02	2.63E-02	2.11E-01
MCY	Gasoline	1.00E+00	3.56E+00	3.81E+00	7.98E-02	7.90E+00	3.86E-04	3.54E-03	3.30E-03	3.91E+01	1.42E-01	5.12E-03	1.09E+00	3.56E+00	3.81E+00
MDV	Diesel	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MDV	Electricity	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MDV	Gasoline	2.07E-01	5.04E-02	1.93E-01	2.43E-01	2.42E+00	8.65E-04	1.06E-03	9.73E-04	9.77E+01	4.91E-02	3.25E-02	2.29E-01	5.13E-02	1.96E-01
MDV	Plug-in Hybrid	1.76E-01	3.37E-02	5.85E-02	1.17E-01	1.37E+00	8.69E-04	9.32E-04	8.57E-04	8.79E+01	4.13E-02	1.94E-02	1.92E-01	3.37E-02	5.85E-02
MH	Diesel	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MH	Gasoline	1.20E-01	3.11E+00	9.71E-02	4.14E-01	2.60E+00	2.98E-04	3.65E-04	3.36E-04	3.01E+01	3.28E-02	4.81E-02	1.32E-01	3.11E+00	9.71E-02
MHDT	Diesel	0.00E+00	0.00E+00	0.00E+00	1.29E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MHDT	Electricity	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MHDT	Gasoline	1.93E-01	1.72E-02	2.07E-01	3.34E-01	3.64E+00	3.83E-04	4.84E-04	4.45E-04	3.87E+01	3.89E-02	2.92E-02	2.11E-01	1.72E-02	2.07E-01
MHDT	Natural Gas	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
OBUS	Diesel	0.00E+00	0.00E+00	0.00E+00	1.08E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
OBUS	Electricity	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
OBUS	Gasoline	1.78E-01	3.65E-02	2.37E-01	3.57E-01	3.55E+00	2.92E-04	3.00E-04	2.76E-04	2.95E+01	3.27E-02	2.51E-02	1.94E-01	3.65E-02	2.37E-01
OBUS	Natural Gas	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBUS	Diesel	0.00E+00	0.00E+00	0.00E+00	7.21E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBUS	Electricity	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBUS	Gasoline	3.67E-01	9.60E-02	4.63E-01	5.53E-01	8.21E+00	4.97E-04	8.32E-04	7.65E-04	5.03E+01	6.77E-02	5.65E-02	4.02E-01	9.60E-02	4.63E-01
SBUS	Natural Gas	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
UBUS	Diesel	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
UBUS	Electricity	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
UBUS	Gasoline	1.04E-01	2.70E-02	1.12E-01	2.95E-01	5.91E+00	3.52E-04	1.58E-04	1.45E-04	3.56E+01	2.99E-02	5.04E-02	1.14E-01	2.70E-02	1.12E-01
UBUS	Natural Gas	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Non-Running EF (g/trip)													
ROG_STREX	ROG_HOTSOAK	ROG_RUNLOSS	NOx_STREX	CO_STREX	SOx_STREX	PM10_STREX	PM2.5_STREX	CO2_STREX	CH4_STREX	N2O_STREX	TOG_STREX	TOG_HOTSOAK	TOG_RUNLOSS
1.42E-01	5.15E-02	1.59E-01	2.96E-01	1.77E+00	5.42E-04	8.56E-04	7.87E-04	6.09E+01	3.45E-02	2.39E-02	1.57E-01	5.21E-02	1.61E-01
16	17	18	19	20	21	22	23	24	25	26	27	28	29
Non-Running EF (g/trip)													
ROG	NOX	CO	SOX	PM10 Fugitive	PM10 Exhaust	PM10 Total	PM2.5 Fugitive	PM2.5 Exhaust	PM2.5 Total	CO2	CH4	N2O	TOG
5.75E-01	4.92E-01	2.02E+00	8.44E-04	0.00E+00	9.54E-04	9.54E-04	0.00E+00	8.81E-04	8.81E-04	9.45E+01	4.01E-02	2.92E-02	6.03E-01

Year
2040

		Non-Running EF (g/trip)											
Vehicle Category	Fuel	ROG_IDLEX	ROG_DIURN	NOx_IDLEX	CO_IDLEX	SOx_IDLEX	PM10_IDLEX	PM2.5_IDLEX	CO2_IDLEX	CH4_IDLEX	N2O_IDLEX	TOG_IDLEX	TOG_DIURN
HHDT	Diesel	3.63E-01	0.00E+00	4.31E+00	5.36E+00	6.62E-03	1.57E-03	1.51E-03	6.99E+02	1.69E-02	1.10E-01	4.13E-01	0.00E+00
HHDT	Electricity	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
HHDT	Gasoline	0.00E+00	1.63E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.63E-01
HHDT	Natural Gas	4.52E-02	0.00E+00	1.28E+00	9.75E+00	0.00E+00	4.68E-03	4.31E-03	1.13E+03	3.13E+00	2.31E-01	3.20E+00	0.00E+00
LDA	Diesel	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
LDA	Electricity	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
LDA	Gasoline	0.00E+00	2.20E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.24E-01
LDA	Plug-in Hybrid	0.00E+00	2.01E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.01E-01
LDT1	Diesel	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
LDT1	Electricity	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
LDT1	Gasoline	0.00E+00	3.80E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.87E-01
LDT1	Plug-in Hybrid	0.00E+00	1.05E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.05E-01
LDT2	Diesel	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
LDT2	Electricity	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
LDT2	Gasoline	0.00E+00	2.43E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.47E-01
LDT2	Plug-in Hybrid	0.00E+00	1.36E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.36E-01
LHDT1	Diesel	8.73E-03	0.00E+00	8.42E-02	7.23E-02	8.82E-05	2.18E-03	2.09E-03	9.31E+00	4.05E-04	1.47E-03	9.93E-03	0.00E+00
LHDT1	Electricity	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
LHDT1	Gasoline	2.05E-02	1.42E-01	1.78E-03	2.54E-01	7.25E-05	0.00E+00	0.00E+00	7.34E+00	5.93E-03	1.71E-04	2.99E-02	1.42E-01
LHDT2	Diesel	8.73E-03	0.00E+00	8.71E-02	7.23E-02	1.43E-04	2.18E-03	2.09E-03	1.51E+01	4.05E-04	2.38E-03	9.93E-03	0.00E+00
LHDT2	Electricity	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
LHDT2	Gasoline	1.90E-02	1.58E-01	1.65E-03	2.54E-01	8.41E-05	0.00E+00	0.00E+00	8.51E+00	5.52E-03	1.57E-04	2.77E-02	1.58E-01
MCY	Gasoline	0.00E+00	1.70E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.70E+00
MDV	Diesel	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MDV	Electricity	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MDV	Gasoline	0.00E+00	2.58E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.62E-01
MDV	Plug-in Hybrid	0.00E+00	1.46E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.46E-01
MH	Diesel	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MH	Gasoline	0.00E+00	1.71E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.71E+01
MHDT	Diesel	1.46E-02	0.00E+00	8.59E-01	6.13E-01	1.53E-03	2.55E-04	2.44E-04	1.61E+02	6.79E-04	2.54E-02	1.66E-02	0.00E+00
MHDT	Electricity	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MHDT	Gasoline	5.14E-02	1.08E-01	3.16E-03	7.65E-01	2.37E-04	0.00E+00	0.00E+00	2.39E+01	1.35E-02	2.92E-04	7.50E-02	1.08E-01
MHDT	Natural Gas	1.98E-02	0.00E+00	5.70E-01	3.85E+00	0.00E+00	2.12E-03	1.95E-03	4.83E+02	1.39E+00	9.84E-02	1.41E+00	0.00E+00
OBUS	Diesel	7.47E-02	0.00E+00	5.68E-01	1.19E+00	1.80E-03	5.78E-04	5.53E-04	1.90E+02	3.47E-03	2.99E-02	8.50E-02	0.00E+00
OBUS	Electricity	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
OBUS	Gasoline	3.74E-02	2.13E-01	2.74E-03	2.90E-01	1.78E-04	0.00E+00	0.00E+00	1.80E+01	9.38E-03	2.09E-04	5.46E-02	2.13E-01
OBUS	Natural Gas	5.68E-03	0.00E+00	1.66E-01	1.17E+00	0.00E+00	6.42E-04	5.90E-04	1.29E+02	3.97E-01	2.64E-02	4.05E-01	0.00E+00
SBUS	Diesel	1.16E-02	0.00E+00	6.87E-01	4.81E-01	1.30E-03	1.78E-04	1.70E-04	1.38E+02	5.38E-04	2.17E-02	1.32E-02	0.00E+00
SBUS	Electricity	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBUS	Gasoline	2.66E+00	6.30E-01	1.61E-01	2.06E+01	5.77E-03	0.00E+00	0.00E+00	5.84E+02	6.31E-01	1.78E-02	3.88E+00	6.30E-01
SBUS	Natural Gas	1.46E-02	0.00E+00	3.62E-01	1.57E+00	0.00E+00	9.17E-04	8.43E-04	2.78E+02	1.02E+00	5.67E-02	1.04E+00	0.00E+00
UBUS	Diesel	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
UBUS	Electricity	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
UBUS	Gasoline	0.00E+00	1.08E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.08E-01
UBUS	Natural Gas	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Non-Running EF (g/trip)											
ROG_IDLEX	ROG_DIURN	NOx_IDLEX	CO_IDLEX	SOx_IDLEX	PM10_IDLEX	PM2.5_IDLEX	CO2_IDLEX	CH4_IDLEX	N2O_IDLEX	TOG_IDLEX	TOG_DIURN
1.65E-02	2.06E-01	1.96E-01	2.58E-01	3.03E-04	9.83E-05	9.38E-05	3.36E+01	5.55E-03	5.35E-03	2.37E-02	2.09E-01

Road Dust Emission Factors

Daily Paved Road Dust EF¹

$$E_{ext} = [k (sL)^{0.91} \times (W)^{1.02}]$$

EF _{paved}	Annual or other long-term average emission factor in the same units as k
k	particle size multiplier for particle size range and units of interest
sL	road surface silt loading (g/m ²)
W	average weight (tons) of all the vehicles raveling the road (2.4 tons)
P	Number of "wet" days with at least 0.254 (0.01 in) of precipitation during the averaging period
N	Number of days in the averaging period (e.g. 365 for annual, 91 for seasonal, 30 for monthly)

Parameters	PM10	PM2.5
k (g/VMT) ²	0.997902	0.24494
sL (g/m ²)	0.1	0.1
W (tons)	2.4	2.4
EF (g/mi)	3.00E-01	7.36E-02

1) CalEEMod User's Guide, Appendix A, p. 29

2) AP42: Chapter 13: Miscellaneous Sources, 13.2.1 Paved Roads, Table 13.2.1-1

EMFAC2017 SAFE Adjustment Factors

*Applies to gasoline LDA,LDT1, LDT2, and MDV

Year	TOG					
	NOx Exhaust	Evaporative	TOG Exhaust	PM Exhaust	CO Exhaust	CO2 Exhaust
2021	1.0002	1.0001	1.0002	1.0009	1.0005	1.0023
2022	1.0004	1.0003	1.0004	1.0018	1.0014	1.0065
2023	1.0007	1.0006	1.0007	1.0032	1.0027	1.0126
2024	1.0012	1.0010	1.0011	1.0051	1.0044	1.0207
2025	1.0018	1.0016	1.0016	1.0074	1.0065	1.0309
2026	1.0023	1.0022	1.0020	1.0091	1.0083	1.0394
2027	1.0028	1.0028	1.0024	1.0105	1.0102	1.0475
2028	1.0034	1.0035	1.0028	1.0117	1.0120	1.0554
2029	1.0040	1.0042	1.0032	1.0129	1.0138	1.0629
2030	1.0047	1.0051	1.0037	1.0142	1.0156	1.0702
2031	1.0054	1.0061	1.0042	1.0155	1.0173	1.0770
2032	1.0061	1.0072	1.0047	1.0169	1.0189	1.0834
2033	1.0068	1.0083	1.0052	1.0182	1.0204	1.0893
2034	1.0075	1.0095	1.0058	1.0196	1.0218	1.0947
2035	1.0081	1.0108	1.0063	1.0210	1.0232	1.0997
2036	1.0088	1.0121	1.0069	1.0223	1.0244	1.1041
2037	1.0094	1.0134	1.0074	1.0236	1.0255	1.1080
2038	1.0099	1.0148	1.0079	1.0248	1.0265	1.1114
2039	1.0104	1.0161	1.0085	1.0259	1.0274	1.1143
2040	1.0109	1.0174	1.0090	1.0270	1.0281	1.1168
2041	1.0113	1.0186	1.0095	1.0279	1.0288	1.1189
2042	1.0116	1.0198	1.0099	1.0286	1.0294	1.1207
2043	1.0119	1.0207	1.0103	1.0293	1.0299	1.1221
2044	1.0122	1.0216	1.0106	1.0299	1.0303	1.1233
2045	1.0124	1.0225	1.0109	1.0303	1.0306	1.1243
2046	1.0125	1.0233	1.0111	1.0308	1.0309	1.1251
2047	1.0127	1.0240	1.0113	1.0311	1.0311	1.1258
2048	1.0128	1.0246	1.0115	1.0314	1.0313	1.1263
2049	1.0128	1.0252	1.0116	1.0316	1.0315	1.1268
2050	1.0129	1.0257	1.0117	1.0318	1.0316	1.1272

1 EMFAC Off-Model Adjustment Factors for Criteria Pollutants

https://ww3.arb.ca.gov/msei/emfac_off_model_adjustment_factors_final_draft.pdf

2 EMFAC Off-Model Adjustment Factors for CO2

https://ww3.arb.ca.gov/msei/emfac_off_model_co2_adjustment_factors_06262020-final.pdf?utm_medium=email&utm_source=govdelivery

A-4: Existing Industrial Uses to Be Removed AQ Emissions

2020 Existing Land Uses to be Removed (Industrial Land Uses)

SUMMER	ROG	NO_x	CO	PM₁₀ Total	PM_{2.5} Total
Category	Emissions (lb/day)				
Area	12.04	0.00	0.05	0.00	0.00
Energy	0.36	3.27	2.75	0.25	0.25
Mobile ¹	--	--	--	--	--
Total	12.40	3.27	2.80	0.25	0.25

WINTER	ROG	NO_x	CO	PM₁₀ Total	PM_{2.5} Total
Category	Emissions (lb/day)				
Area	12.04	0.00	0.05	0.00	0.00
Energy	0.36	3.27	2.75	0.25	0.25
Mobile ¹	--	--	--	--	--
Total	12.40	3.27	2.80	0.25	0.25

MAXIMUM	ROG	NO_x	CO	PM₁₀ Total	PM_{2.5} Total
Category	Emissions (lb/day)				
Area	12.04	0.00	0.05	0.00	0.00
Energy	0.36	3.27	2.75	0.25	0.25
Mobile ¹	--	--	--	--	--
Existing Emissions to be Removed	12.40	3.27	2.80	0.25	0.25

1. Mobile emissions related to industrial uses to be removed are accounted for in Project Operations mobile emissions estimates.

Station District Specific Plan - Existing Operations 2020 - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Station District Specific Plan - Existing Operations 2020

Bay Area AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	50.00	1000sqft	1.15	49,999.00	0
General Light Industry	50.00	1000sqft	1.15	49,999.00	0
General Light Industry	50.00	1000sqft	1.15	49,999.00	0
General Light Industry	50.00	1000sqft	1.15	49,999.00	0
General Light Industry	50.00	1000sqft	1.15	49,999.00	0
General Light Industry	50.00	1000sqft	1.15	49,999.00	0
General Light Industry	50.00	1000sqft	1.15	49,999.00	0
General Light Industry	50.00	1000sqft	1.15	49,999.00	0
General Light Industry	50.00	1000sqft	1.15	49,999.00	0
General Light Industry	46.01	1000sqft	1.06	46,009.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	64
Climate Zone	5			Operational Year	2020
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MW hr)	203.98	CH4 Intensity (lb/MW hr)	0.033	N2O Intensity (lb/MW hr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Multiple General Light Industry uses included because CalEEMod does not allow General Light Industry with areas greater than 50,000SF. Total SF equivalent to 496,000 SF.

Construction Phase - Operations only evaluated in this CalEEMod run, no construction.

Vehicle Trips - Mobile emissions estimated outside of CalEEMod.

Station District Specific Plan - Existing Operations 2020 - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	46,010.00	46,009.00
tblLandUse	LandUseSquareFeet	50,000.00	49,999.00
tblLandUse	LandUseSquareFeet	50,000.00	49,999.00
tblLandUse	LandUseSquareFeet	50,000.00	49,999.00
tblLandUse	LandUseSquareFeet	50,000.00	49,999.00
tblLandUse	LandUseSquareFeet	50,000.00	49,999.00
tblLandUse	LandUseSquareFeet	50,000.00	49,999.00
tblLandUse	LandUseSquareFeet	50,000.00	49,999.00
tblLandUse	LandUseSquareFeet	50,000.00	49,999.00
tblLandUse	LandUseSquareFeet	50,000.00	49,999.00
tblVehicleTrips	ST_TR	1.99	0.00
tblVehicleTrips	SU_TR	5.00	0.00
tblVehicleTrips	WD_TR	4.96	0.00

Station District Specific Plan - Existing Operations 2020 - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Category	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					
Mitigated	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
Unmitigated	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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
General Light Industry	0.00	0.00	0.00		
General Light Industry	0.00	0.00	0.00		
General Light Industry	0.00	0.00	0.00		
General Light Industry	0.00	0.00	0.00		
General Light Industry	0.00	0.00	0.00		
General Light Industry	0.00	0.00	0.00		
General Light Industry	0.00	0.00	0.00		
General Light Industry	0.00	0.00	0.00		
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

Station District Specific Plan - Existing Operations 2020 - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.550280	0.057835	0.189756	0.122472	0.024036	0.005389	0.010519	0.007395	0.001083	0.000614	0.026702	0.000795	0.003122

Station District Specific Plan - Existing Operations 2020 - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	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	lb/day										lb/day					
NaturalGas Mitigated	0.3601	3.2734	2.7496	0.0196		0.2488	0.2488		0.2488	0.2488		3,928.0322	3,928.0322	0.0753	0.0720	3,951.3746
NaturalGas Unmitigated	0.3601	3.2734	2.7496	0.0196		0.2488	0.2488		0.2488	0.2488		3,928.0322	3,928.0322	0.0753	0.0720	3,951.3746

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					
General Light Industry	3097.1	0.0334	0.3036	0.2551	1.8200e-003		0.0231	0.0231		0.0231	0.0231		364.3646	364.3646	6.9800e-003	6.6800e-003	366.5298
General Light Industry	3365.69	0.3267	2.9697	2.4946	0.0178		0.2257	0.2257		0.2257	0.2257		3,563.6677	3,563.6677	0.0683	0.0653	3,584.8447
Total		0.3601	3.2734	2.7496	0.0196		0.2488	0.2488		0.2488	0.2488		3,928.0322	3,928.0322	0.0753	0.0720	3,951.3746

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	lb/day										lb/day					
General Light Industry	3.0971	0.0334	0.3036	0.2551	1.8200e-003		0.0231	0.0231		0.0231	0.0231		364.3646	364.3646	6.9800e-003	6.6800e-003	366.5298
General Light Industry	3.36569	0.3267	2.9697	2.4946	0.0178		0.2257	0.2257		0.2257	0.2257		3,563.6677	3,563.6677	0.0683	0.0653	3,584.8447
Total		0.3601	3.2734	2.7496	0.0196		0.2488	0.2488		0.2488	0.2488		3,928.0322	3,928.0322	0.0753	0.0720	3,951.3746

Station District Specific Plan - Existing Operations 2020 - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.0 Area Detail

6.1 Mitigation Measures Area

	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	lb/day										lb/day					
Mitigated	12.0364	4.7000e-004	0.0510	0.0000		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		0.1086	0.1086	2.9000e-004		0.1158
Unmitigated	12.0364	4.7000e-004	0.0510	0.0000		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		0.1086	0.1086	2.9000e-004		0.1158

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	lb/day										lb/day					
Architectural Coating	1.4172					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	10.6144					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.7900e-003	4.7000e-004	0.0510	0.0000		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		0.1086	0.1086	2.9000e-004		0.1158
Total	12.0364	4.7000e-004	0.0510	0.0000		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		0.1086	0.1086	2.9000e-004		0.1158

Station District Specific Plan - Existing Operations 2020 - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Architectural Coating	1.4172					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	10.6144					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.7900e-003	4.7000e-004	0.0510	0.0000		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		0.1086	0.1086	2.9000e-004		0.1158
Total	12.0364	4.7000e-004	0.0510	0.0000		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		0.1086	0.1086	2.9000e-004		0.1158

Station District Specific Plan - Existing Operations 2020 - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Station District Specific Plan - Existing Operations 2020 - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Station District Specific Plan - Existing Operations 2020

Bay Area AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	50.00	1000sqft	1.15	49,999.00	0
General Light Industry	50.00	1000sqft	1.15	49,999.00	0
General Light Industry	50.00	1000sqft	1.15	49,999.00	0
General Light Industry	50.00	1000sqft	1.15	49,999.00	0
General Light Industry	50.00	1000sqft	1.15	49,999.00	0
General Light Industry	50.00	1000sqft	1.15	49,999.00	0
General Light Industry	50.00	1000sqft	1.15	49,999.00	0
General Light Industry	50.00	1000sqft	1.15	49,999.00	0
General Light Industry	50.00	1000sqft	1.15	49,999.00	0
General Light Industry	46.01	1000sqft	1.06	46,009.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	64
Climate Zone	5			Operational Year	2020
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MW hr)	203.98	CH4 Intensity (lb/MW hr)	0.033	N2O Intensity (lb/MW hr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Multiple General Light Industry uses included because CalEEMod does not allow General Light Industry with areas greater than 50,000SF. Total SF equivalent to 496,000 SF.

Construction Phase - Operations only evaluated in this CalEEMod run, no construction.

Station District Specific Plan - Existing Operations 2020 - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Vehicle Trips - Mobile emissions estimated outside of CalEEMod.

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	46,010.00	46,009.00
tblLandUse	LandUseSquareFeet	50,000.00	49,999.00
tblLandUse	LandUseSquareFeet	50,000.00	49,999.00
tblLandUse	LandUseSquareFeet	50,000.00	49,999.00
tblLandUse	LandUseSquareFeet	50,000.00	49,999.00
tblLandUse	LandUseSquareFeet	50,000.00	49,999.00
tblLandUse	LandUseSquareFeet	50,000.00	49,999.00
tblLandUse	LandUseSquareFeet	50,000.00	49,999.00
tblLandUse	LandUseSquareFeet	50,000.00	49,999.00
tblLandUse	LandUseSquareFeet	50,000.00	49,999.00
tblVehicleTrips	ST_TR	1.99	0.00
tblVehicleTrips	SU_TR	5.00	0.00
tblVehicleTrips	WD_TR	4.96	0.00

Station District Specific Plan - Existing Operations 2020 - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Category	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					
Mitigated	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
Unmitigated	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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
General Light Industry	0.00	0.00	0.00		
General Light Industry	0.00	0.00	0.00		
General Light Industry	0.00	0.00	0.00		
General Light Industry	0.00	0.00	0.00		
General Light Industry	0.00	0.00	0.00		
General Light Industry	0.00	0.00	0.00		
General Light Industry	0.00	0.00	0.00		
General Light Industry	0.00	0.00	0.00		
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

Station District Specific Plan - Existing Operations 2020 - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.550280	0.057835	0.189756	0.122472	0.024036	0.005389	0.010519	0.007395	0.001083	0.000614	0.026702	0.000795	0.003122

Station District Specific Plan - Existing Operations 2020 - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	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	lb/day										lb/day					
NaturalGas Mitigated	0.3601	3.2734	2.7496	0.0196		0.2488	0.2488		0.2488	0.2488		3,928.0322	3,928.0322	0.0753	0.0720	3,951.3746
NaturalGas Unmitigated	0.3601	3.2734	2.7496	0.0196		0.2488	0.2488		0.2488	0.2488		3,928.0322	3,928.0322	0.0753	0.0720	3,951.3746

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					
General Light Industry	3365.69	0.3267	2.9697	2.4946	0.0178		0.2257	0.2257		0.2257	0.2257		3,563.6677	3,563.6677	0.0683	0.0653	3,584.8447
General Light Industry	3097.1	0.0334	0.3036	0.2551	1.8200e-003		0.0231	0.0231		0.0231	0.0231		364.3646	364.3646	6.9800e-003	6.6800e-003	366.5298
Total		0.3601	3.2734	2.7496	0.0196		0.2488	0.2488		0.2488	0.2488		3,928.0322	3,928.0322	0.0753	0.0720	3,951.3746

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	lb/day										lb/day					
General Light Industry	3.0971	0.0334	0.3036	0.2551	1.8200e-003		0.0231	0.0231		0.0231	0.0231		364.3646	364.3646	6.9800e-003	6.6800e-003	366.5298
General Light Industry	3.36569	0.3267	2.9697	2.4946	0.0178		0.2257	0.2257		0.2257	0.2257		3,563.6677	3,563.6677	0.0683	0.0653	3,584.8447
Total		0.3601	3.2734	2.7496	0.0196		0.2488	0.2488		0.2488	0.2488		3,928.0322	3,928.0322	0.0753	0.0720	3,951.3746

Station District Specific Plan - Existing Operations 2020 - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.0 Area Detail

6.1 Mitigation Measures Area

	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	lb/day										lb/day					
Mitigated	12.0364	4.7000e-004	0.0510	0.0000		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		0.1086	0.1086	2.9000e-004		0.1158
Unmitigated	12.0364	4.7000e-004	0.0510	0.0000		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		0.1086	0.1086	2.9000e-004		0.1158

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	lb/day										lb/day					
Architectural Coating	1.4172					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	10.6144					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.7900e-003	4.7000e-004	0.0510	0.0000		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		0.1086	0.1086	2.9000e-004		0.1158
Total	12.0364	4.7000e-004	0.0510	0.0000		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		0.1086	0.1086	2.9000e-004		0.1158

Station District Specific Plan - Existing Operations 2020 - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Architectural Coating	1.4172					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	10.6144					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.7900e-003	4.7000e-004	0.0510	0.0000		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		0.1086	0.1086	2.9000e-004		0.1158
Total	12.0364	4.7000e-004	0.0510	0.0000		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		0.1086	0.1086	2.9000e-004		0.1158

Station District Specific Plan - Existing Operations 2020 - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

A-5: Existing Industrial Uses to Be Removed GHG Emissions

Existing Land Uses to be Removed GHG Summary

Source Category	MTCO₂e/year
Area	0.01
Electricity	344
Natural Gas	654
Mobile ¹	--
Waste	309
Water	214
Existing Emissions to be Removed	1,522

1. Mobile emissions related to industrial uses to be removed are accounted for in Project Operations mobile emissions estimates.

Station District Specific Plan - Existing Operations 2020 - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

**Station District Specific Plan - Existing Operations 2020
Bay Area AQMD Air District, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	50.00	1000sqft	1.15	49,999.00	0
General Light Industry	50.00	1000sqft	1.15	49,999.00	0
General Light Industry	50.00	1000sqft	1.15	49,999.00	0
General Light Industry	50.00	1000sqft	1.15	49,999.00	0
General Light Industry	50.00	1000sqft	1.15	49,999.00	0
General Light Industry	50.00	1000sqft	1.15	49,999.00	0
General Light Industry	50.00	1000sqft	1.15	49,999.00	0
General Light Industry	50.00	1000sqft	1.15	49,999.00	0
General Light Industry	50.00	1000sqft	1.15	49,999.00	0
General Light Industry	46.01	1000sqft	1.06	46,009.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	64
Climate Zone	5			Operational Year	2020
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MW hr)	203.98	CH4 Intensity (lb/MW hr)	0.033	N2O Intensity (lb/MW hr)	0.004

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Multiple General Light Industry uses included because CalEEMod does not allow General Light Industry with areas greater than 50,000SF. Total SF equivalent to 496,000 SF.

Construction Phase - Operations only evaluated in this CalEEMod run, no construction.

Vehicle Trips - Mobile emissions estimated outside of CalEEMod.

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	46,010.00	46,009.00
tblLandUse	LandUseSquareFeet	50,000.00	49,999.00
tblLandUse	LandUseSquareFeet	50,000.00	49,999.00
tblLandUse	LandUseSquareFeet	50,000.00	49,999.00
tblLandUse	LandUseSquareFeet	50,000.00	49,999.00
tblLandUse	LandUseSquareFeet	50,000.00	49,999.00
tblLandUse	LandUseSquareFeet	50,000.00	49,999.00
tblLandUse	LandUseSquareFeet	50,000.00	49,999.00
tblLandUse	LandUseSquareFeet	50,000.00	49,999.00
tblLandUse	LandUseSquareFeet	50,000.00	49,999.00
tblVehicleTrips	ST_TR	1.99	0.00
tblVehicleTrips	SU_TR	5.00	0.00
tblVehicleTrips	WD_TR	4.96	0.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated 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	2.1962	4.0000e-005	4.5900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.8600e-003	8.8600e-003	2.0000e-005	0.0000	9.4600e-003
Energy	0.0657	0.5974	0.5018	3.5800e-003		0.0454	0.0454		0.0454	0.0454	0.0000	991.3058	991.3058	0.0676	0.0186	998.5420
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
Waste						0.0000	0.0000		0.0000	0.0000	124.8496	0.0000	124.8496	7.3784	0.0000	309.3096
Water						0.0000	0.0000		0.0000	0.0000	36.3898	57.4253	93.8150	3.7469	0.0894	214.1215
Total	2.2619	0.5974	0.5064	3.5800e-003	0.0000	0.0454	0.0454	0.0000	0.0454	0.0454	161.2393	1,048.7399	1,209.9793	11.1929	0.1080	1,521.9825

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	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	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
Unmitigated	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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
General Light Industry	0.00	0.00	0.00		
General Light Industry	0.00	0.00	0.00		
General Light Industry	0.00	0.00	0.00		
General Light Industry	0.00	0.00	0.00		
General Light Industry	0.00	0.00	0.00		
General Light Industry	0.00	0.00	0.00		
General Light Industry	0.00	0.00	0.00		
General Light Industry	0.00	0.00	0.00		
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.550280	0.057835	0.189756	0.122472	0.024036	0.005389	0.010519	0.007395	0.001083	0.000614	0.026702	0.000795	0.003122

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	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					
Electricity Mitigated							0.0000	0.0000		0.0000	0.0000	340.9760	340.9760	0.0552	6.6900e-003	344.3477
Electricity Unmitigated							0.0000	0.0000		0.0000	0.0000	340.9760	340.9760	0.0552	6.6900e-003	344.3477
NaturalGas Mitigated	0.0657	0.5974	0.5018	3.5800e-003		0.0454	0.0454		0.0454	0.0454	0.0000	650.3298	650.3298	0.0125	0.0119	654.1944
NaturalGas Unmitigated	0.0657	0.5974	0.5018	3.5800e-003		0.0454	0.0454		0.0454	0.0454	0.0000	650.3298	650.3298	0.0125	0.0119	654.1944

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					
General Light Industry	1.13044e+006	6.1000e-003	0.0554	0.0466	3.3000e-004		4.2100e-003	4.2100e-003		4.2100e-003	4.2100e-003	0.0000	60.3246	60.3246	1.1600e-003	1.1100e-003	60.6831
General Light Industry	1.22848e+006	0.0596	0.5420	0.4553	3.2500e-003		0.0412	0.0412		0.0412	0.0412	0.0000	590.0052	590.0052	0.0113	0.0108	593.5113
Total		0.0657	0.5974	0.5018	3.5800e-003		0.0454	0.0454		0.0454	0.0454	0.0000	650.3298	650.3298	0.0125	0.0119	654.1944

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
General Light Industry	1.13044e+006	6.1000e-003	0.0554	0.0466	3.3000e-004		4.2100e-003	4.2100e-003		4.2100e-003	4.2100e-003	0.0000	60.3246	60.3246	1.1600e-003	1.1100e-003	60.6831
General Light Industry	1.22848e+006	0.0596	0.5420	0.4553	3.2500e-003		0.0412	0.0412		0.0412	0.0412	0.0000	590.0052	590.0052	0.0113	0.0108	593.5113
Total		0.0657	0.5974	0.5018	3.5800e-003		0.0454	0.0454		0.0454	0.0454	0.0000	650.3298	650.3298	0.0125	0.0119	654.1944

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	341847	31.6290	5.1200e-003	6.2000e-004	31.9417
General Light Industry	371493	309.3470	0.0501	6.0700e-003	312.4059
Total		340.9760	0.0552	6.6900e-003	344.3477

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	341847	31.6290	5.1200e-003	6.2000e-004	31.9417
General Light Industry	371493	309.3470	0.0501	6.0700e-003	312.4059
Total		340.9760	0.0552	6.6900e-003	344.3477

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.0 Area Detail

6.1 Mitigation Measures Area

	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	2.1962	4.0000e-005	4.5900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.8600e-003	8.8600e-003	2.0000e-005	0.0000	9.4600e-003
Unmitigated	2.1962	4.0000e-005	4.5900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.8600e-003	8.8600e-003	2.0000e-005	0.0000	9.4600e-003

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	0.2586					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.9371					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.8600e-003	8.8600e-003	2.0000e-005	0.0000	9.4600e-003
Total	2.1962	4.0000e-005	4.5900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.8600e-003	8.8600e-003	2.0000e-005	0.0000	9.4600e-003

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.2586					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.9371					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.8600e-003	8.8600e-003	2.0000e-005	0.0000	9.4600e-003	
Total	2.1962	4.0000e-005	4.5900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.8600e-003	8.8600e-003	2.0000e-005	0.0000	9.4600e-003	

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	93.8150	3.7469	0.0894	214.1215
Unmitigated	93.8150	3.7469	0.0894	214.1215

7.2 Water by Land Use

Unmitigated

Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e	
Land Use	Mgal	MT/yr			
General Light Industry	114.702 / 0	93.8150	3.7469	0.0894	214.1215
Total		93.8150	3.7469	0.0894	214.1215

Mitigated

Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e	
Land Use	Mgal	MT/yr			
General Light Industry	114.702 / 0	93.8150	3.7469	0.0894	214.1215
Total		93.8150	3.7469	0.0894	214.1215

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	124.8496	7.3784	0.0000	309.3096
Unmitigated	124.8496	7.3784	0.0000	309.3096

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	615.05	124.8496	7.3784	0.0000	309.3096
Total		124.8496	7.3784	0.0000	309.3096

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	615.05	124.8496	7.3784	0.0000	309.3096
Total		124.8496	7.3784	0.0000	309.3096

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

A-6: Additional Modeling Considerations

Technical Modeling Considerations for Criteria Pollutants and Human Health Effects

In their interim guidance addressing *Sierra Club v. County of Fresno* (6 Cal. 5th 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 two models used to estimate criteria pollutant emissions generated by 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 operation of the project were estimated using the California Emissions Estimator Model (CalEEMod) 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 that 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 BAAQMD. 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_{2.5}) 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.

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, 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, BAAQMD has not developed 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.

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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 not recommended 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 ₂ , ROG, NO _x , 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 not recommended 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 ³ 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 not recommended 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 ₂ , NO _x , NH ₃ , 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 not recommended 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 ₂ , SO ₂ , 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 not recommended 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 ₃ , CO, ROG, EC, CH ₄ , SO ₂	This tool is applicable at national to global scales. Accordingly, the tool is not recommended 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 ₂	This tool is applicable at national scale. Accordingly, the tool is not recommended 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 not recommended 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 ₃ , 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 not recommended 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 C: ENERGY QUANTIFICATION

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Station District Specific Plan

Energy Consumption

The Proposed Plan's energy consumption values were based on the net increase in energy consumption. Electricity and natural gas would be consumed by residences and commercial buildings. Gasoline and diesel would be consumed by vehicles traveling to and from the Proposed Plan's land uses and are based on an annual vehicle miles traveled (VMT) of 297,321,398.¹

The net increase in consumption is based on energy consumption from the Proposed Plan's future development (Pipeline Projects + New Development) minus energy consumption related to the existing industrial land uses to be removed as part of the Proposed Plan's implementation. Existing land uses within the Planning Area that are to remain were not evaluated; this assumption is consistent with the air quality, GHG, and transportation analyses.

Table 1: Energy Consumption from Existing Industrial Land Uses to Be Removed

Energy Source	Annual Consumption
Electricity (GWh)	4.31
Natural Gas (MMcf)	11.95
Source: ICF 2021 GWh = gigawatt-hour MMcf = million cubic feet	

Table 2: Energy Consumption from Proposed Plan Development (Pipeline Projects + New Development)

Energy Source	Annual Consumption
Electricity	
Proposed Plan (GWh)	120.22
Existing Industrial Land Uses to Be Removed (GWh)	4.31
Proposed Plan Net Total (GWh)	115.91
Natural Gas	
Proposed Plan (MMcf)	108.31
Existing Industrial Land Uses to Be Removed (MMcf)	11.95
Proposed Plan Net Total (MMcf)	96.36
Transportation Fuels¹	
Gasoline (gallons)	9,275,304
Diesel (gallons)	2,637,157
Source: ICF 2021 ¹ The gasoline and diesel values represent the Proposed Plan's fuel consumption. These values account for fuel use associated with existing industrial land uses to be removed. GWh = gigawatt-hour MMcf = million cubic feet	

¹ Annual VMT based on daily VMT of 856,834 and 347 days of operation per year. Information provided by Fehr and Peers.

APPENDIX D: SPECIAL STATUS SPECIES

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Special-Status Species with Potential to Occur in the Planning Area

Table 1. Special-Status Wildlife and Fish with Potential to Occur in the Planning Area

Common Name Scientific Name	Status ^a Federal/ State/ Other	Geographic Range	General Habitat Description	Potential for Occurrence	Rationale
Invertebrates					
Monarch (California overwintering) <i>Danaus plexippus</i>	FC/--	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	Medium	Species has been documented breeding within the Planning Area (Western Monarch Milkweed Mapper 2021). Suitable roosting habitat (<i>Eucalyptus</i> sp.) is present within the Planning Area, however groves or stands of trees are small and scattered and the Planning Area is surrounded by developed land, limiting natural foraging resources. Although the nearest CNDDDB record is located at East Bay Regional Park Ardenwood Regional Preserve, the Western Monarch Milkweed Mapper reports multiple occurrences in The Core subarea.
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	Planning Area is located outside species' known geographic range.

Common Name Scientific Name	Status ^a Federal/ State/ Other	Geographic Range	General Habitat Description	Potential for Occurrence	Rationale
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 Planning Area.
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 Planning Area.
Western bumble bee <i>Bombus occidentalis</i>	FC/--	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</i> , <i>Cirsium</i> , <i>Trifolium</i> , <i>Centaurea</i> , <i>Chrysothamnus</i> , and <i>Eriogonum</i>	None	Planning Area is located outside species known current range. Nearest CNDDDB record for the species is from 1932 located approximately 0.81 mile southeast of the Planning Area.
Fish					
Delta smelt <i>Hypomesus transpacificus</i>	FT/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	Planning Area is located outside species range and no suitable aquatic habitat is present.

Common Name	Status^a Federal/ State/ Other	Geographic Range	General Habitat Description	Potential for Occurrence	Rationale
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.	Low	There are no known occurrences of steelhead in Old Alameda Creek and no suitable aquatic habitat is present in the Planning Area. However, Alameda Creek is approximately 0.40 mile southwest of Planning Area. Alameda Creek is hydrologically connected to Old Alameda Creek; fish have the potential to use Old Alameda Creek during times of high flow.
Amphibians					
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.	Moderate	Suitable aquatic habitat present in the Planning Area at Old Alameda Creek and unnamed vegetated ditches. Upland habitat is present in annual grassland landcover adjacent to ditches and creek. An extant CNDDDB occurrence overlaps with the Station East Planning Area; the occurrence is within an unnamed intermittent stream that connects downstream to Alameda Creek and upstream to streams east of the Planning Area where there are numerous records of the species.
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 or vernal pools) present in the Planning Area. Planning Area surrounded by agricultural and developed land.

Common Name Scientific Name	Status ^a Federal/ State/ Other	Geographic Range	General Habitat Description	Potential for Occurrence	Rationale
Reptiles					
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	Planning Area does not occur within one of the five known population and lacks habitat (scrub or chaparral with rock outcrops). Planning Area surrounded by agricultural and developed land.
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	Low	Suitable aquatic habitat present in the Planning Area at Old Alameda Creek, ephemeral pond, and unnamed vegetated intermittent streams. Upland breeding habitat is present in annual grassland landcover adjacent to ephemeral pond, intermittent stream, and creek. Closest known CNDDDB occurrence is in Alameda Creek approximately 1.8 miles southeast of Planning Area.
Birds					
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	Agricultural hay field margins, annual grassland and ruderal habitat within the Planning Area is highly fragmented and disturbed by human presence (situated near active agriculture, adjacent to urban development or other infrastructure). Foraging habitat (grassland and agricultural fields) are present in the Planning Area, but overall habitat patch size is marginal and surrounded by developed land. Nearest CNDDDB occurrence is located approximately 2.85 miles southwest of the Planning Area.

Common Name Scientific Name	Status^a Federal/ State/ Other	Geographic Range	General Habitat Description	Potential for Occurrence	Rationale
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	Suitable foraging habitat (grassland) is present in the Planning Area, but habitat patch is fragmented and patch size is marginal and surrounded by developed lands. Nearest CNDDDB occurrence is located approximately 3 miles southwest of the Planning Area.
California black rail <i>Laterallus jamaicensis coturniculus</i>	-/ST/FP	Permanent resident in the San Francisco Bay and eastward 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 Planning Area. Planning Area 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 Planning Area. Planning Area surrounded by agricultural and developed land.
California least tern <i>Sterna 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 Planning Area. Planning Area surrounded by agricultural and developed land.

Common Name	Status^a Federal/ State/ Other	Geographic Range	General Habitat Description	Potential for Occurrence	Rationale
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 Planning Area. Planning Area 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 Planning Area. Planning Area surrounded by agricultural and developed land.
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 Planning Area. Planning Area surrounded by agricultural and developed land.
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 Planning Area; foraging habitat (grassland and agricultural fields) present but habitat patch sizes are marginal and surrounded by developed land. Nearest CNDDDB occurrences are west of the Planning Area at Coyote Hills Regional Park.

Common Name	Status^a Federal/ State/ Other	Geographic Range	General Habitat Description	Potential for Occurrence	Rationale
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 Planning Area. Planning Area surrounded by agricultural and developed land.
Mammals					
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 Planning Area. Nearest CNDDDB occurrence is located approximately 4.4 miles northwest of the Planning Area.
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 Planning Area. Nearest CNDDDB occurrence for the species is located approximately 3.8 miles east of the Planning Area.
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 Planning Area. Planning Area surrounded by agricultural and developed land

Common Name	Status^a Federal/ State/ Other	Geographic Range	General Habitat Description	Potential for Occurrence	Rationale
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Notes:

^a 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.

FC= candidate for federal listing under federal Endangered Species Act.

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.

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 Planning Area

Common Name	Status^a	Geographic Distribution	General Habitat Description	Potential to Occur	Rationale
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, broadleafed upland forest, valley and foothill grassland; 60-1300 meters; blooms Mar-Jun	None	No suitable habitat (chaparral/oak woodland ecotone) present in the Planning Area.
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 Planning Area.
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 Planning Area.
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 Planning Area.
Long-styled sand-spurrey <i>Spergularia macrotheca</i> var. <i>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 (alkaline soils with meadows, seeps, and marshes) present in the Planning Area.

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	Planning Area located outside species' known elevation range; site approximately 20 meters above sea level. No suitable habitat (serpentinite outcrops) in in the Planning Area.
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	Moderate	Suitable habitat is present (shallow emergent wetlands and freshwater lakes, and drainage channels) in/or surrounding the Planning Area. Closest CNDDDB occurrence is at the Quarry Lakes area of Alameda Creek regional trail. Exact location is unknown. Population is presumed extant.

* = populations extirpated in the county.

^a 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 (CRPR):

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.

CRPR 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 E: NOISE DATA

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**Union City Specific Plan - Traffic Noise Analysis Summary - "2040 Plus Project"
Salter Project No. 21-0111 (13 April 2021)**

#	Roadway	Segment	Future Noise Level at 50' (DNL in dB)	Future: Distance from Centerline to DNL 70 dB	Future: Distance from Centerline to DNL 65 dB	Future: Distance from Centerline to DNL 60 dB
1	Decoto Road	Mission Blvd. to 11th Street	74	90	200	440
2	Decoto Road	11th Street to Alvarado-Niles Road	76	130	280	590
3	Alvarado Niles Rd.	H Street to Decoto Road	75	110	250	530
4	Alvarado Niles Rd.	Decoto Road to Union Square	74	90	200	420
5	7th Street	South of Decoto Rd	69	<50	90	190
6	11th Street	South of Decoto Rd	68	<50	80	180
7	Future Quarry Lakes Parkway	West of Mission Blvd.	75	110	240	520

Definition:

DNL (Day-Night Average Sound Level) – A descriptor for a 24-hour A-weighted average noise level. DNL accounts for the increased acoustical sensitivity of people to noise during the nighttime hours. DNL penalizes sound levels by 10 dB during the hours from 10 PM to 7 AM. For practical purposes, the DNL and CNEL are usually interchangeable. DNL is sometimes written as Ldn.

Comments/Assumptions

- 1) Street traffic volumes are per traffic engineer data received May 2021
- 2) DNL is estimated to be equal to the peak hour Leq
- 3) Peak hour traffic volume is estimated to be 10% of ADT
- 4) Truck % are assumed to be 2% minimum
- 5) Speeds are estimated per street type/posting

Union City District Specific Plan Trip Generation Summary										
Land Use	ITE Code	Size	Units	Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
The Core										
Multi-Family (Mid-Rise)	221	1,110	DU	6,050	94	268	362	273	174	447
Retail (Shopping Center)	820	24	KSF	2,280	100	60	160	90	100	190
Office	710	1,814	KSF	17,650	1,490	240	1,730	290	1,500	1,790
Industrial	110	0	KSF	0	0	0	0	0	0	0
<i>Subtotal</i>				25,980	1,684	568	2,252	653	1,774	2,427
<i>Internal Capture Reduction</i>				-2,930	-230	-78	-308	-59	-161	-220
<i>Walk/Bike/Transit Reduction</i>				-5,670	-420	-143	-563	-151	-410	-561
Net New Automobile Trips				17,380	1034	347	1,381	443	1,203	1,646
Station East										
Multi-Family (Mid-Rise)	221	1,290	DU	7,030	109	311	420	315	201	516
Retail (Shopping Center)	820	83	KSF	5,300	120	73	193	227	246	473
Office	710	2,544	KSF	24,500	2,079	339	2,418	394	2,070	2,464
Industrial	110	-489	KSF	-2,430	-301	-41	-342	-40	-268	-308
<i>Subtotal</i>				34,400	2,007	682	2,689	896	2,249	3,145
<i>Internal Capture Reduction</i>				-2,470	-178	-60	-238	-74	-186	-260
<i>Walk/Bike/Transit Reduction</i>				-5,720	-434	-148	-582	-177	-443	-620
Net New Automobile Trips				26,210	1395	474	1,869	645	1,620	2,265
The Marketplace										
Multi-Family (Mid-Rise)	221	1,010	DU	5,500	86	244	330	249	159	408
Retail (Shopping Center)	820	0	KSF	0	0	0	0	0	0	0
Office	710	409	KSF	4,160	353	58	411	69	365	434
Industrial	110	0	KSF	0	0	0	0	0	0	0
<i>Subtotal</i>				9,660	439	302	741	318	524	842
<i>Internal Capture Reduction</i>				-810	-44	-30	-74	-20	-34	-54
<i>Walk/Bike/Transit Reduction</i>				-490	-25	-18	-43	-17	-28	-45
Net New Automobile Trips				8,360	370	254	624	281	462	743
Gateway										
Multi-Family (Mid-Rise)	221	520	DU	2,830	45	127	172	132	84	216
Retail (Shopping Center)	820	26	KSF	2,410	102	63	165	96	105	201
Office	710	0	KSF	0	0	0	0	0	0	0
Industrial	110	-7	KSF	-40	-4	-1	-5	-1	-3	-4
<i>Subtotal</i>				5,200	143	189	332	227	186	413
<i>Internal Capture Reduction</i>				-310	-12	-16	-28	-22	-18	-40
<i>Walk/Bike/Transit Reduction</i>				-180	-5	-7	-12	-7	-7	-14
Net New Automobile Trips				4,710	126	166	292	198	161	359
Specific Plan Project										
<i>Total Internal Capture Reduction</i>				-6,520	-464	-184	-648	-175	-399	-574
<i>Total Walk/Bike/Transit Reduction</i>				-12,060	-884	-316	-1,200	-352	-888	-1,240
Total Net New Vehicle Trips				56,660	2,925	1,241	4,166	1,567	3,446	5,013

Average Daily Traffic Volumes				
Segment Description	Existing ADT	Existing Plus Project ADT	2040 No Project ADT	2040 Plus Project ADT
Decoto Road between Mission Boulevard and 11th Street	18,000	32,400	24,700	26,200
Decoto Road between 11th Street and Alvarado-Niles Road	39,700	53,500	38,100	41,400
Alvarado-Niles Road between H Street and Decoto Road	28,700	33,800	34,300	34,700
Alvarado-Niles Road between Decoto Road and Union Square	18,900	24,000	24,500	24,900
7th Street south of Decoto Road	6,480	21,780	13,080	13,280
11th Street south of Decoto Road	2,980	15,380	11,680	11,780

Union City Station District VMT Summary			
	Household VMT per Capita	Home-Work VMT per Worker	Total VMT per Service Population
Planning Area 2020 Baseline	23.3	13.2	26.1
Planning Area 2040 Buildout	19.1	11.1	26.3
Union City 2020 Baseline Average	23.7	15.4	27.1
15% below Baseline Citywide Average (Threshold of Significance)	20.1	13.1	23.0
Significant Impact?	No	No	Yes

Planning Area Land Use Summary		
	2020 Baseline	2040 Plan Buildout
Households	1,720	5,650
Population	5,000	14,400
Jobs	2,300	18,200
Service Population	7,300	32,600

Union City Station District VMT Summary by Speed Bin		
Speed Bin		2040 Daily VMT
>=0	<=5	949
>5	<=10	2,139
>10	<=15	4,297
>15	<=20	7,524
>20	<=25	45,061
>25	<=30	91,107
>30	<=35	153,865
>35	<=40	138,632
>40	<=45	95,637
>45	<=50	140,103
>50	<=55	94,968
>55	<=60	46,539
>60	<=65	36,013
Totals		856,834

APPENDIX F: TRAFFIC MODELING DATA

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Union City Station District VMT Summary			
	Household VMT per Capita	Home-Work VMT per Worker	Total VMT per Service Population
Planning Area 2020 Baseline	23.3	13.2	26.1
Planning Area 2040 Buildout	19.1	11.1	26.3
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15% below Baseline Citywide Average (Threshold of Significance)	20.1	13.1	23.0
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Totals		856,834

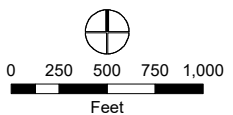
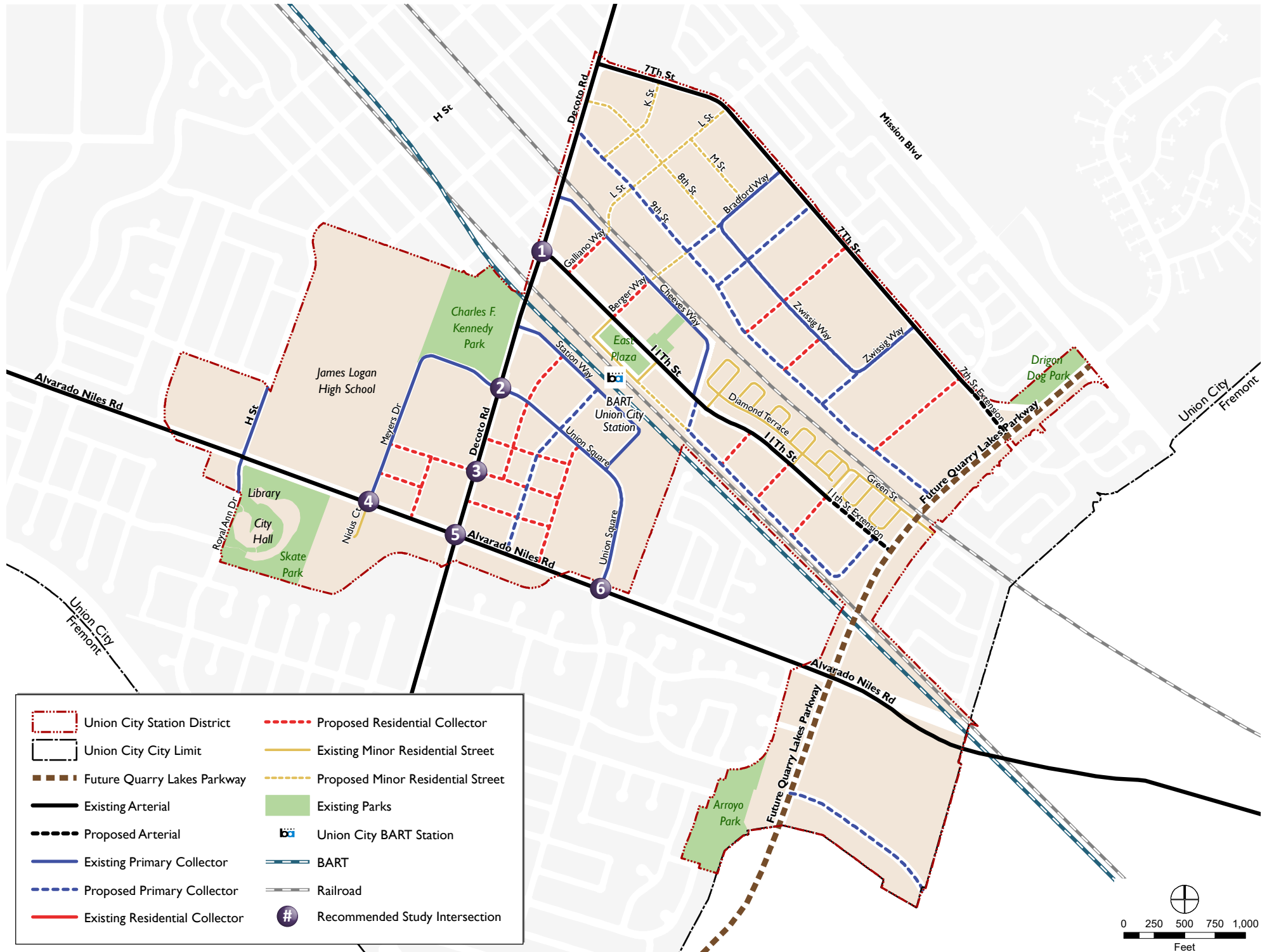
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7th Street south of Decoto Road	6,480	21,780	13,080	13,280
11th Street south of Decoto Road	2,980	15,380	11,680	11,780

Recommended Study Intersections

1. Decoto Road/11th Street
2. Decoto Road/Meyers Drive/Union Square
3. Decoto Road/new intersection between Alvarado-Niles Road and Union Square
4. Nidus Street/Meyers Drive/Alvarado-Niles Road
5. Decoto Road/Alvarado-Niles Road
6. Alvarado-Niles Road/Mann Avenue/Union Square

Figure X: Recommended Study Intersections



Source: City of Union City, 2019; Alameda County GIS, 2019.

APPENDIX G: WATER SUPPLY ASSESSMENT

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DIRECTORS

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LAURA J. HIDAS
Water Resources
REKHA IPPAGUNTA (interim)
Engineering and Technology Services
JONATHAN WUNDERLICH
Finance

September 10, 2021

Carmela Campbell
Economic and Community Development Director
City of Union City
34009 Alvarado-Niles Rd.
Union City, CA 94587

Dear Ms. Campbell:

Subject: Water Supply Assessment - Station District Specific Plan Project

This letter is in response to your request dated June 4, 2021, requesting a Water Supply Assessment (WSA) for the Station District Specific Plan Project (Project), located in the City of Union City (City), which is within the Alameda Country Water District's (ACWD or District) Service Boundary (Attachment A-1). Pursuant to Section 10912 of the California Water Code, the Project meets the threshold requirement for a WSA based on the number of housing units and commercial building area, which exceed 500-dwelling-units and 0.5 M ft² respectively. On July 20, ACWD requested a 30-day extension to complete the WSA, pursuant to California Water Code Section 10910 (Attachment A-2).

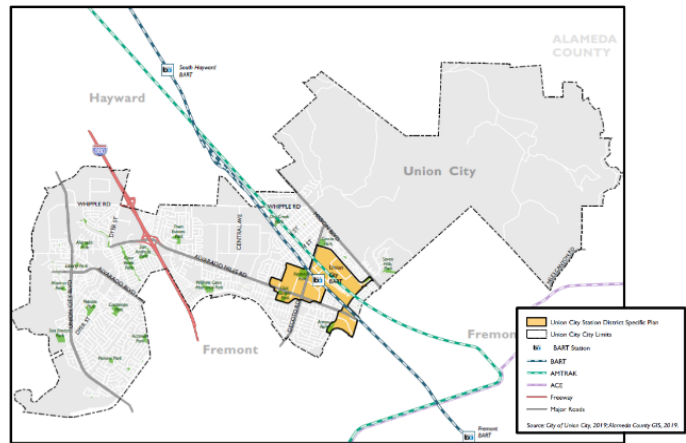
The purpose of this WSA is to fulfill the City's requirements under the California Environmental Quality Act (CEQA), evaluating the proposed Project's impact on water supply; a WSA does not constitute a "will-serve" letter from ACWD and the provision of water service will still be subject to additional approvals as individual elements of the Project proceed into development.

ACWD has reviewed the proposed Project and determined that water demand associated with the proposed Project was accounted for in ACWD's most recently adopted Urban Water Management Plan (UWMP), the 2020-2025 UWMP (Attachment B). The following information fulfills the requirements of a WSA as outlined in sections 10910-10915 of the California Water Code, most of which is a summary of information that can be found in full detail in the 2020-2025 UWMP. The WSA was approved by motion by the District's Board of Directors at the regularly scheduled September meeting.

Project Description

The Project is an intensification of existing planned land use, through infill and redevelopment, of 471 acres inside the regional Priority Development Area (PDA) and surrounding the Union City BART Station (Figure 1 Project Location). The PDA was identified by the Association of Bay Area Governments (ABAG) and Metropolitan Transportation Commission (MTC) in Plan Bay Area 2050 as a regional priority growth area to create housing and jobs near mass transit. Buildout of the proposed Project would result in an increase of 2,520 housing units and 3,173,000 ft² of non-residential building space within the Project area.

Figure 1 Project Location



Project Demand

The proposed Project would increase density of development within the project area with a net increase in demand for water. ACWD estimates the additional demand for water associated with the Project to be 955 acre-feet/year (AF/yr.), using the demand forecasting methodology used in the 2020-2025 UWMP¹.

Table 1 Project Details and Projected Demand

	Total of Existing Development and Plans for the Area	Station District Special Plan Project	Total Buildout
Residential Units	3,130	2,520	5,650
Non-Residential Building Area (ft ²)	2,254,000	3,173,000	5,427,000
Estimated Water Demand (AF/yr.)	830	955	1,785

Findings of the Water Supply Assessment

ACWD used growth assumptions from the draft Plan Bay Area 2050 to develop the water demand forecast used for water supply reliability analyses in the 2020-2025 UWMP. The Project is included in the Plan Bay Area 2050 final growth figures, which are less than the draft figures used in the 2020-2025 UWMP. Therefore, the Project is included in ACWD's most recently adopted UWMP, the 2020-2025 UWMP, which illustrates how ACWD will meet the projected water demand associated with the proposed Project, in addition to existing and other planned future uses, including agricultural and manufacturing uses.

¹ The UWMP demand estimate is based on service area-wide average usage factors for different customer classes and is therefore a rough estimate

ACWD's Existing Water Supplies

The District manages an integrated water supply portfolio comprised of a mix of imported and local supplies. Due to the integrated management of the District's water supply portfolio, the proposed Project, along with all District customers, may receive water supplies from all sources and would not be dependent on any single one. All water supplies are described in full detail in Chapter 3 of the 2020-2025 UWMP. Information regarding the capital program for infrastructure related to the District's local supplies is available in the District's most recently adopted budget². Pursuant to Water Code Section 10910, a brief summary of ACWD's water supplies is included below with historic use illustrated in Figure 2.

State Water Project

The District has a contract with the California Department of Water Resources (DWR) for a maximum annual amount of 42,000 acre-feet from the State Water Project (SWP) (Attachment C). To help mitigate year-over-year variations in SWP supply, the District also contracts with the Semitropic Groundwater Banking Program in Kern County to store excess water in years of surplus for use in dry years. Semitropic is not a source of supply, rather a storage program, which relies on the function of the SWP to operate.

Del Valle Reservoir

The District holds a water right on Arroyo Del Valle to divert water to storage in Del Valle Reservoir, which is owned and operated by DWR.

San Francisco's Regional Water System

The District has a Master Sales Agreement with the San Francisco Public Utilities Commission (SFPUC), supplemented by an Individual Water Sales Contract, for 13.76 mgd, or approximately 15,344 acre-feet/year (Attachment C).

Niles Cone Groundwater Basin

ACWD is the Groundwater Sustainability Agency (GSA) for the Niles Cone Groundwater Basin (Niles Cone), a medium priority basin under the Sustainable Groundwater Management Act (SGMA), which is not identified as being subject to critical conditions of overdraft. DWR approved the District's Alternative to a Groundwater Sustainability Plan³ for the management of the Niles Cone on July 17, 2019. ACWD pumps groundwater from the Niles Cone at the Mowry and Peralta-Tyson Wellfields. Private well owners also pump water directly from the Niles Cone, for which they pay ACWD a replenishment assessment. Additional pumping from the Niles Cone occurs at ACWD's Aquifer Reclamation Program (ARP) wells, discussed further below under Brackish Groundwater Desalination. Table 2 includes information on the location and amount of pumping by ACWD and private wells for the past five years. Chapter 4 of the UWMP provides a comprehensive description of the Niles Cone, including groundwater quality, groundwater levels, historical and projected groundwater pumping, and ACWD's groundwater management activities.

² <https://www.acwd.org/DocumentCenter/View/3850/ACWD-Adopted-Budget-FY-2021-23>

³ <https://sgma.water.ca.gov/portal/alternative/print/4>.

The primary source of recharge for the Niles Cone is local runoff from the Alameda Creek Watershed, recharged at the District’s groundwater recharge facilities. ACWD has a water right on Alameda Creek to support these recharge operations as well as a Biological Opinion⁴ (BiOp) from the National Marine Fisheries Service (NMFS).

Brackish Groundwater Desalination

The District utilizes a reverse osmosis process at the Newark Desalination Facility to remove salts and other impurities from the brackish groundwater pumped from most of ACWD’s ARP wells, providing approximately 5,000 AF/yr. of potable water supply.

*Table 2 Location and Amount of Pumping
as Documented in ACWD's Annual Survey Report on Groundwater Conditions (AF/yr.)*

Fiscal Year	ACWD Pumping at the Mowry and Peralta-Tyson Wellfields	ACWD pumping at ARP Wells	Pumping by Private Wells
15-16	5,200	11,900	2,000
16-17	6,700	11,500	1,600
17-18	8,400	10,900	1,800
18-19	7,700	10,700	1,500
19-20	7,900	12,100	1,700

Figure 2: Table 3-1 of the 2020-2025 UWMP

Table 3-1 District Historical Water Supply Utilization (AF/yr)								
FISCAL YEAR	SWP supplies used at ACWD facilities	Del Valle	SFPUC RWS	Newark Desal Facility⁽²⁾	Net Local Groundwater Recharge⁽³⁾	Recovered from Semitropic GW bank	Total In-District Water Supply	SWP Supply delivered to Semitropic GW bank
10-11	14,300	5,900	8,800	6,600	33,600	0	69,200	23,400
11-12	18,300	2,600	9,300	8,900	17,000	0	56,100	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	8,100	12,900	3,000	55,300	0
14-15	9,000	1,200	8,800	8,200	23,300	13,200	63,700	0
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	0	55,500	7,900
18-19	9,000	4,500	8,800	6,700	31,200	5,000	65,200	6,100
19-20	10,500	5,500	8,800	8,600	20,800	4,400	58,600	7,100

⁴Endangered Species Act Section 7(a)(2) Biological Opinion and Magnuson-Stevens. Fishery Conservation and Management Act Essential Fish Habitat Response for the Joint Lower Alameda Creek Fish Passage Improvements Project in Fremont, California (Corps File No. 2013-00083S, NMFS No: SWR-2013-9696)

Future Use of Supply

While the District is evaluating new water supply alternatives, it does not currently plan to develop any for purposes of meeting future demands for water. Therefore, just as the integrated water supply portfolio provides a mix of supplies to our customers today, the proposed Project, as well as all existing and future customers, will continue to receive water supplies from all sources and will not be dependent on any single one. Table 9-2 of 2020-2025 UWMP (copied here as Figure 3) illustrates the intended future use of our existing resources to meet demands through build out. Tables 9-3 through 9-8 of the UWMP further illustrate the planned use during dry periods, as described further below.

Figure 3 – Table 9-2 of the 2020-2025 UWMP

**Table 9-2
Projected Normal Year Water Supply and Demand Comparison (AF/yr)**

SUPPLY/DEMAND	Year					
	2020	2025	2030	2035	2040	2045
SUPPLY COMPONENT						
Imported Supplies						
- State Water Project	20,900	20,900	20,900	20,900	20,900	20,900
- San Luis Reservoir CO	0	0	0	0	0	0
- SFPUC RWS	15,400	15,400	15,400	15,400	15,400	15,400
Total Imported Supplies	36,300	36,300	36,300	36,300	36,300	36,300
Local Supplies						
- Groundwater Recharge	21,700	21,800	21,800	21,900	21,900	21,800
- Groundwater Storage	N/A	N/A	N/A	N/A	N/A	N/A
- Del Valle	5,000	5,000	5,000	5,000	5,000	5,000
- Desalination	5,100	5,100	5,100	5,100	5,100	5,100
- Recycled Water	0	0	0	0	0	0
Total Local Supplies	31,800	31,900	31,900	32,000	32,000	31,900
Banking/Transfers						
- Semitropic Banking	N/A	N/A	N/A	N/A	N/A	N/A
TOTAL SUPPLY	68,100	68,200	68,200	68,300	68,300	68,200
DEMAND COMPONENT						
- Distribution System Demand	42,200	44,600	44,200	44,000	44,100	52,100
- Groundwater System Demand	16,400	16,300	16,200	16,100	16,000	15,500
TOTAL DEMAND	58,600	60,900	60,400	60,100	60,100	67,600
SUPPLY & DEMAND COMPARISON						
- Supply Totals	68,100	68,200	68,200	68,300	68,300	68,200
- Demand Totals	58,600	60,900	60,400	60,100	60,100	67,600
- Difference	9,500	7,300	7,800	8,200	8,200	600
- Difference as % of Supply	14%	11%	11%	12%	12%	1%
- Difference as % of Demand	16%	12%	13%	14%	14%	1%

Water Supply Availability During Normal Years and Droughts

ACWD's ability to meet the demand for water, including those associated with the Project, during normal years and droughts is described in full detail in Chapter 9 of the 2020-2025 UWMP. During periods of water supply shortage, ACWD may be required to implement a Water Shortage Contingency Plan (WSCP), which would include provisions for all customers to cut back on water use. Because the Project's demands are consistent with the UWMP demand forecast, the development of the Project will not result in increased shortages from those which are already factored into ACWD's planning. However, water supplies to the Project may be cut back during periods of supply shortfall, consistent with the rest of ACWD's customers. Further information on the WSCP can be found in Chapter 10 of the 2020-2025 UWMP. Pursuant to Water code Section 10910, the WSA includes a summary of the availability of these supplies under normal, single dry, and multiple dry years, below.

Normal Years

Under normal year water supply conditions, ACWD will have sufficient supplies to meet projected future water demands, as adjusted for estimated future water use efficiency savings. This analysis also indicates that during these hydrologic conditions, ACWD would have sufficient supplies available (in excess of the projected demands) for placing into groundwater storage (locally or at the off-site Semitropic Groundwater Bank) for later use in the service area in dry years. (See Figure 3 – Table 9-2 of the 2020-2025 UWMP)

Single Dry Years

During single dry years, ACWD's SWP supplies may be cut back by approximately 90%, and the District would need to rely on local and off-site groundwater storage to help make up for this shortfall. Under future projected levels of demand, the District can expect to incur shortages of up to 18% under this scenario. If there is insufficient local groundwater storage or if the District is unable to recover its reserves from the Semitropic Groundwater Banking Program, the District would look to secure additional supplies through a DWR drought water bank or similar water purchase/transfer program. In addition, the District would also likely implement the WSCP described in Chapter 10 of the UWMP as was done in 2014. (See Table 9-3 of the 2020-2025 UWMP.)

Multiple Dry Years

During multiple dry years (5-year) ACWD expects similar results as a single dry year analysis, with interim year shortages of up to 16% under this scenario. 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. (See Tables 9-4 through 9-8 of the 2020-2025 UWMP.)

Summary and Conclusions

1. The City of Union City has proposed the Station District Specific Plan Project which would add 2,520 housing units and 3,173,000 ft² of non-residential building space, through infill and redevelopment, of 471 acres surrounding the Union City BART Station.
2. The District determined that the water demand associated with the project is included in the 2020-2025 UWMP and is estimated to be approximately 955 AF/yr.
3. The District's 2020-2025 UWMP identifies that the District may face water supply shortages during dry years. It also includes detailed discussions on future uncertainties surrounding ACWD's water supplies, including but not limited to the impacts of climate change and further State and Federal regulations.
4. 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.
5. The determination of water supply sufficiency is based on the implementation of the water efficiency measures set forth in paragraph 4 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.
6. This WSA is based on the proposed land use of the Station District Specific Plan 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 WSA, 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 WSA, 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.
7. The determination made in this water supply and demand analysis is based on the circumstances as of the date this WSA was approved. In the event that subsequent evaluation of District-wide demands and supplies 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).
8. 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.

City of Union City
Page 8
September 10, 2021

If you should have any questions about this water supply assessment or ACWD's Urban Water Management Plan, please don't hesitate to contact ACWD's Water Supply and Planning Manager, Thomas Niesar, at (510) 668-6549 or by email at thomas.niesar@acwd.com.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Ed Stevenson', with a stylized, cursive script.

Ed Stevenson
General Manager

tn/mh

Attachments

cc: Thomas Niesar, ACWD

ATTACHMENT A-1 AND A-2 CORRESPONDENCE RECORD

Thomas Niesar

From: Juniet Rotter
Sent: Tuesday, July 20, 2021 1:43 PM
To: Aaron Welch; Carmela Campbell
Cc: Devon Becker; Stephanie Nevins; Gabriella Folino; Thomas Niesar
Subject: RE: Check-in - Station District Specific Plan WSA

Hi Aaron/Carmela,

Pursuant to the City of Union City's 6/4/2021 request, Alameda County Water District (District) is in the process of preparing a water supply assessment (WSA) for the Station District Specific Plan Project. The State Water Code requires that the District complete the WSA within 90 days of receipt of the request, or 9/2/2021. The District requests a 30-day extension to complete the WSA, pursuant to California Water Code Section 10910, in order to bringing the WSA to our regularly scheduled Board meeting on 9/9/2021 for Board approval.

If you would like to discuss this request, please contact Thomas Niesar at (510) 668-6549 or Thomas.Niesar@acwd.com. Thank you.

Juni Rotter
Development Services Manager
Alameda County Water District
43885 S. Grimmer Blvd.
Fremont, CA 94538
Phone # (510) 668-4472
Fax # (510) 651-1760
e-mail: juniet.rotter@acwd.com

From: Juniet Rotter
Sent: Friday, June 4, 2021 4:37 PM
To: Aaron Welch <aaronwelchplanning@gmail.com>; Carmela Campbell <CarmelaC@unioncity.org>
Cc: Devon Becker <Devon.Becker@acwd.com>; Stephanie Nevins <Stephanie.Nevins@acwd.com>; Gabriella Folino <gabriella@dyettandbhatia.com>; Thomas Niesar <Thomas.Niesar@acwd.com>
Subject: RE: Check-in - Station District Specific Plan WSA

Hi Aaron/Carmela,

We have received your request for a water supply assessment (WSA) for the Station District Specific Plan, however, the letter was not on City letterhead. ACWD requests that you place the letter on City of Union City letterhead and re-send to for record purposes (the date on the letter can remain as 6/4/2021).

We received the letter on 6/4/2021, pursuant to the Ca Water code, ACWD has 90 days to respond to your request, or until 9/2/2021. Given this schedule ACWD anticipates taking this item to our regularly scheduled August Board meeting on 8/12/2021. ACWD staff will coordinate with your staff over the next month to clarify project details and to provide you with our demand figures for use in the WSA. Please let me know if you have any questions. Thanks.

Juni Rotter
Development Services Manager
Alameda County Water District
43885 S. Grimmer Blvd.



June 16, 2021

Ms. Juni Rotter
Development Services Manager
Alameda County Water District
43885 S. Grimmer Blvd.
Fremont, CA 94538

Subject: Water Supply Assessment Request for Station District Specific Plan

Dear Ms. Rotter:

The City of Union City is preparing the Station District Specific Plan (Proposed Plan), a land use plan guiding future development within the approximately 471-acre Planning Area around the Union City Intermodal Station in the City of Union City (City), Alameda County, California. The Proposed Plan guides infill development and redevelopment within five subareas within the Planning Area: The Core, Station East, The Marketplace, Gateway, and Civic Center. The entirety of the Plan Area is within the regional Priority Development Area (PDA) around the Union City BART Station, and is identified by ABAG and MTC in Plan Bay Area as a regional priority growth area for housing and jobs.

Proposed Land Uses are shown in the attached Project Description figures, and retain the existing land use framework of the Union City General Plan 2040.

It is assumed that buildout of the Proposed Plan will occur incrementally over a 20-year planning horizon. However, the Proposed Plan itself does not specify or anticipate when buildout will actually occur. The timeline and buildout scenario will likely vary, because actual development will be determined by a number of factors, including market conditions, site constraints, land availability, and property owner interest. Estimated buildout of the Proposed Plan includes a combination of existing development, pipeline projects, and new development. This would result in an estimated total of 5,650 residential units, 5,427,000 square feet of non-residential uses, 14,400 residents, and 18,200 jobs in 2040, as described in the Project Description and summarized in Table 1 below.

Previous WSAs already approved by ACWD – including the Integral development in the Station East area and The Intermodal Station District Mixed Use Project – are accounted for in the “Pipeline” Row of Table 1, which represents development already entitled and/or under construction in the Station District Specific Plan area. Of the total Net New residential units shown in Table 1, approximately 250 would be townhome, while the remaining 2,270 would be higher-density multi-family residential.

economic &
community development

CITY OF UNION CITY

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unioncity.org



Table 1: Planning Area Buildout Summary

	Residential (units)	Non-Residential (square feet)			
		Total	Retail	Office	Industrial
Existing	1,720	1,023,000	372,000	59,000	592,000
Pipeline	1,410	1,231,000	31,000	1,200,000	-
Net New	2,520	3,173,000	102,000	3,567,000	-496,000
Total	5,650	5,427,000	505,000	4,826,000	96,000

Source: Dyett & Bhatia, 2021; Union City, 2020; Alameda County Assessor's Office, 2020.

The Proposed Plan would include a range of urban public parks and paseos, semi-private and private open space areas, and other landscaped areas. There are no other unique Proposed Plan elements that would have a need for water.

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 District Specific Plan. 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 Dyett & Bhatia. A Notice of Preparation was issued on January 26, 2021. 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.

Sincerely,
Carmela Campbell
 Carmela Campbell
 Economic and Community Development Director

- Attachments:
 Attachment 1. Station District EIR Project Description
 Attachment 2. Station District EIR Project Description Figures
 Attachment 3. Diagram of Past WSAs, Project Vicinity

ATTACHMENT B

ACWD URBAN WATER MANAGEMENT PLAN 2020-2025

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/DocumentCenter/View/3816/Final-2020-2025-UWMP>

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

WATER EFFICIENCY MEASURES FOR NEW RESIDENTIAL DEVELOPMENT			
v. 08.2021			
GPF = gallons per flush, GPM = gallons per minute, IWF = integrated water factor			
Indoors	Water Usage Rates	Recommendation Details	Federal or State Requirements
Toilets	1.0 GPF	Maximum Performance (MaP) rated Premium High Efficiency Toilet (HETs) or WaterSense labeled HETs with a maximum flush volume of 1.0 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 1.0 GPF.	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
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	1.2 GPM	Lavatory faucets with aerators that restrict flow to 1.2 GPM or less at 60 psi.	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	3.7 IWF	High efficiency clothes washers (HEW) with an integrated water factor of 3.7 or less. IWF rated washers have a maximum average water use of 3.7 gallons per cubic foot of laundry.	CEC - Maximum integrated water factor (IWF) January 1, 2018: top-loading compact 12.0, top-loading standard 6.5, front-loading compact 8.3, front-loading standard 4.7
Dishwashers	3.5 - 5.0 Gallons per cycle	Efficient dishwashers that use 5.0 gallons/cycle or less (standard-sized - 8 or more place settings), 3.5 gallons/cycle or less (compact size - less than 8 place settings)	CEC - Effective May 30, 2013: Compact dishwashers - 3.5 gal/cycle max.; Standard dishwashers - 5.0 gal/cycle max.
Outdoors		Recommendation Details	Federal or State Requirements
Turf Landscaping		No turf shall be installed at the site unless it is functional – functional turf areas include play areas, picnic areas, sports areas, parks, schools, and areas that have some purpose other than aesthetics. Turf should not be installed in areas that are hard to irrigate such as such as narrow strips and slopes.	Many of these measures are now required as part of the CA Model Water Efficient Landscape Ordinance (MWEL0), which has been adopted (or an at least as effective ordinance adopted) by local permitting agencies. For MWEL0 details visit the Department of Water Resources website at: https://water.ca.gov/Programs/Water-Use-And-Efficiency . Please contact the local permitting agency (City) permitting department for any variations from the State Ordinance.
Non-turf Landscaping		Select native or low water using plant species. High water using plants should be avoided, but if used they should be grouped together and irrigated separately.	
Irrigation System		Irrigation systems should be designed to maximize efficiency and reduce water waste by minimizing overspray and runoff. Use low volume (e.g., inline drip) irrigation where feasible. Only turf areas shall be irrigated with overhead spray irrigation.	
Irrigation Controller		Install automatic, self-adjusting irrigation controllers, each with a rain sensor. Automatic, self-adjusting controllers utilize prevailing weather conditions, current and historic evapotranspiration, soil moisture levels, and other relevant factors to adapt water applications to meet the needs of plants.	
Valves and Circuits		Should be separated into hydrozones based on plant type and plant water needs. Where feasible, trees shall be placed on separate irrigation valves from shrubs, groundcovers, and turf.	
Decorative fountains		All decorative fountains should recirculate water.	
Swimming Pools and Spas		Covers should be used on all pools or spas.	
Rain Barrels and Cisterns		Evaluate the feasibility of installing rain barrels or cisterns to collect rain water for irrigation, then install in areas where feasible.	
ReScape Landscaping Best Practices		Adopt ReScape's (formerly known as Bay Friendly) 8 best practices best practices for landscaping and gardening. 1. Act Local; 2. Reduce Waste; 3. Nurture Soil; 4. Sequester Carbon; 5. Save Water; 6. Conserve Energy; 7. Protect Water & Air; 8. Create Habitat. More information about these practices here: https://www.rescapeca.org/eight-principles	

**WATER EFFICIENCY MEASURES
FOR NEW COMMERCIAL DEVELOPMENT**

v. 08.2021

GPF = gallons per flush, GPM = gallons per minute, IWF = integrated water factor

Indoors	Water Usage Rates	Recommendation Details	Federal or State Requirements
Toilets	1.0 GPF	Tank style toilets: Maximum Performance (MaP) rated Premium High Efficiency Toilet (HETs) or WaterSense labeled HETs with a maximum flush volume of 1.0 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 1.0 GPF. Flushometer or Valve type toilets : WaterSense labeled HETs with a maximum flow of 1.0 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	4.0 IWF	High efficiency clothes washers (HEW) with an integrated water factor of 4.0 or less. IWF rated washers have a maximum average water use of 4.0 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 install, use, and maintain a water recycling system that recycles and reuses at least 60% of the wash and rinse water.	California Water Code Section 10950 - In-bay and conveyor car wash facilities, as defined in the Water Code, constructed after January 1, 2014, must have a water recycling system that reuses at least 60 percent of the wash and rinse water.
Outdoors		Recommendation Details	Federal or State Requirements
Same recommendations as for Residential Developments			

APPENDIX H: CULTURAL RESOURCE MATERIALS

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CONTINUATION SHEET

Property Name: John H. Peterson Farm

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*Recorded by: Michael Meloy

*Date Jan. 2020 Update

The John H. Peterson Farmhouse is located on 6.8-acre parcel (APN 87-11-15-15) at 35261 Alvarado-Niles Road, Union City, California. In visits in 1992 and again in 1995, historian Ward Hill photographed the property and recorded and evaluated its eligibility for the National Register of Historic Places (NRHP). At that time, the property included four buildings: a Queen Anne farm house, a tank house, a carport, and a barn, all "set in a grove of mature trees which contrasts with the surrounding 30 acres of flat, open land, seasonally planted with flowers by a local grower" (See Photos 1-3). In the early 1990s, Hill conducted a windshield survey of Union City, and what was "originally Washington Township," and found that the Peterson House was a "rare, surviving example of a large 19th century farmhouse that retains integrity of materials, design and setting." Hill ultimately determined the property eligible for the NHRP under Criterion A, as "one of the only surviving farm houses dating to the early years (the 1880s) of the fruit growing industry in Washington Township" and "specifically in the Niles district." He also found it eligible under Criterion C as an "outstanding example of an 1880s Queen Anne style farm house in Washington Township."

Hill recorded the Peterson Farmhouse on a California Department of Transportation Architectural Inventory/Evaluation Form, which he used to assess the property's condition. His research suggested that "the Peterson house appears to be the only surviving farmhouse in [Union City]." He described the farmhouse thus:

The 2-story section of the house has a cross gable with first floor, 45-degree angle bay windows below a gabled, 90-degree angle second floor on the north and east elevations. The south elevation is a flat wall covered with rustic siding. The gable roof is covered with wood shingles, many of which are loose and deteriorated. The 45-degree angle bays, covered with rustic siding, have ornamental scroll brackets above the corner double-hung windows. The north elevation has paired double-hung windows, and the east elevation has a single double-hung window, centered on the first and second floors. The gable ridge of these two elevations has an ornamental kingpost topped by a finial above a small, fixed pane window with a decorative frame. The walls below the 2 gables are covered with fish-scale shingles. An area above the front entrance now enclosed with plywood appears to have been a small, outdoor porch. Decorative wood crestings run along the roof ridge from the north gable to the east gable. A brick chimney, with a molded brick cap, also projects from above the center of the roof ridge.

¹ Ward Hill, "California Department of Transportation Architectural Inventory/Evaluation Form for the John H. Peterson Farm," 1995, In Caltrans District 4 Office of Cultural Resource Studies Cultural Resource Database (CCRD).

CONTINUATION SHEET

Property Name: John H. Peterson Farm

Page 2 of 16

The single-story section of the house forms a rectangular-plan stem to the 2-story head of the T-plan. The single-story section has a gable roof covered with roofing paper, and exterior walls generally covered with rustic siding. The single-story section has been added to twice, one shed-roof addition on the south elevation is covered plywood, and a gable-roof addition on the west elevation, covered in rustic siding and with doors opening to the north and south, houses two bathrooms.

Hill said that, although the house's integrity was "somewhat compromised because of later additions and deterioration resulting from deferred maintenance," it had retained "much of its exterior ornament and form, in addition to its historic interior plan and finishes."² And though the barn had a low level of integrity, owing "to its early date [pre-1890] and its appearing to have over 50% of its original materials intact," Hill conclude that the barn, the Queen Anne farmhouse, and the tank house, contributed to the property's significance.³

Ward drew the boundaries of the historic property, what he called the "area of potential eligibility," to include a one-and-a-half acre section of the parcel that included the three contributing buildings (and the ineligible carport) and the grove of mature trees (see Photo 9).⁴

In October 1995, State Historic Preservation Officer Cheryl Widell (SHPO) concurred with the Hill's determination that the Peterson Farmhouse was eligible for the NRHP at the local level of significance, for its "strong associations with the development of orchard agriculture in Washington Township in the 1880s." At that time, the SHPO said that the house and the accompanying complex of buildings "retains integrity of design, setting, and association with its historic period of significance (1884-1930) despite minor changes to the main house and the deterioration of the barn structure. The Peterson farm complex is the last remaining reminder of the rural agricultural presence in the Union City area, an area that has been extensively developed in recent years."⁵

In 2008, architectural historian Alex Hardy of ICF, International/Jones & Stokes, visited

² *Ibid.*, 2.

³ *Ibid.*, 3. Ward said that the Peterson Queen Anne was more impressive architecturally than the Charles Shinn house, which is now a local park, museum, and arboretum owned by the City of Fremont, California.

⁴ *Ibid.*, 9.

⁵ Letter, Cheryl Widell, State Historic Preservation Officer, to Fred J. Hempel, Federal Highway Administration, Region Nine, October 20, 1995 (FHWA 950601A), in Caltrans District 4 Office of Cultural Resource Studies Cultural Resource Database (CCRD).

CONTINUATION SHEET

Property Name: John H. Peterson Farm

Page 3 of 16

the farm site and reviewed its condition. Hardy recorded several relatively minor changes made in the sixteen years since Ward Hill's initial survey of the property. Among them were the "replacement of several second-story windows with new vinyl 1/1 windows" and the replacement of the roof shingles with composites. Hardy concluded that even after these changes to the buildings and landscape, of the four buildings recorded by Ward Hill in 1995, only the barn, which had deteriorated further and been modified beyond recognition, no longer contributed to the resource's significance.⁶

Michael Meloy, a Caltrans Professionally Qualified Staff (PQS), Principal Architectural Historian, visited the farm on October 23, 2019 and confirmed that the buildings and landscape remain in virtually the same condition as described in Hardy's 2008 survey. However, the farmhouse had been painted since then, suggesting therefore some of the deferred maintenance that Ward Hill referred to has been completed. Several of the trees Hill described as "mature trees" surrounding the farmhouse are intact. Those trees, including a pair of mature palms and a pair of mulberry trees, likely date to the period of significance (1884-1930). Several non-historic trees, either planted or naturally occurring, now line the property south of the farmhouse (see Photo 4).

Hill indicated that the area above the front entrance, presumably "a small, outdoor porch," was "enclosed with plywood." That north-facing section of the house is now enclosed with horizontal boards that are thinner than those that clad the rest of the house. There is a short vertical board and batten strip below the horizontal boards. A vinyl horizontal sliding window has been installed into the upper part of that wall. A drain pipe running down the side of one of the pillars at the front step, and an opening in the ceiling above the front porch, suggest that the second story outdoor porch was converted to a bathroom (see photos 5 and 6).

Because changes to the property have been relatively minor, the Peterson Farmhouse remains eligible for the National Register of Historic Places at the local level of significance under Criteria A and C, and for the California Register of Historical Resources under Criteria 1 and 3.

Previous surveys of the property have not identified historic-era archaeological deposits associated with the Peterson Farmhouse.⁷ The Peterson Farmhouse has not yielded and

⁶ ICF Jones & Stokes, *Cultural Resources Inventory and Evaluation, East-West Connector Project*, 2008, 15.

⁷ ICF Jones & Stokes, *Cultural Resources Inventory and Evaluation, East-West Connector Project*, 2008. Busby, Colin, *Negative Archaeological Survey Report, The Route 84 Realignment Project*,

CONTINUATION SHEET

Property Name: John H. Peterson Farm

Page 4 of 16

is not likely to yield information important in history at the national, state or local level and is not significant under National Register Criterion D or California Register Criterion 4.

Integrity Assessment:

The Peterson Farmhouse, barn, tank house, and trees remain in their original location. Therefore, the Peterson Farmhouse retains integrity of **location**.

The property remains set within a cluster of trees surrounded by a 15-acre working agricultural landscape of cleared and leveled fields with alternating row crops, and backed by a flood-control ditch (which is likely the original alignment of Alameda Creek). However the broader landscape has changed since its period of significance with increasing encroachment of tract housing on three sides and Quarry Lakes Regional Recreation Area to the east. The Peterson Ranch retains moderate integrity of **setting**, given the enclosed immediate surrounding.

Design features that distinguish the Peterson Farmhouse, the house's cross-gable layout, fish-scale shingles, wood crestings, ornamental kingposts, and decorative window frames, remain virtually unchanged since the 1995 evaluation; in fact, there is no evidence to suggest that these elements have been altered since its period of significance. Changes that have occurred to the building, including the addition of a single-story extension to the rear of the house, and the enclosure of the second-story porch above the main entry, which are minor changes relative to the way the original features defined the design of the structure. The tank house, which likely dates to the 1920s, has not had its fundamental features, which include its rustic siding, vertical corner boards, round nails, 8" X 8" interior posts, and battered walls terminating in shallow-eaves, altered. The barn is virtually obliterated seemingly because of neglect due to lack of use. It seems to have collapsed and been reconstructed as a windbreak for horses. Nevertheless, because the farmhouse, landscaped area surrounding the house, and tank house retain most of their character-defining features, the Peterson Farmhouse retains moderate integrity of **design**.

The material make-up of the Peterson Farmhouse remains nearly unchanged. The wood shingle roof has been replaced and a pair of wood-framed double hung windows on the second story have been replaced with vinyl windows. The addition of a single-story extension to the rear of the house, and the enclosure of the second-story porch above the main entry, are minor changes relative to the remaining original

1994, California Department of Transportation.

CONTINUATION SHEET

Property Name: John H. Peterson Farm

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materials. The tank house, which likely dates to the 1920s, appears to retain its fundamental material features, such as its rustic siding, round nails, 8" X 8" interior posts, and battered walls. Since changes are relatively minor and do not change the bulk of the material used to construct the farmhouse and the tank house, the Peterson Farmhouse retains integrity of **materials**.

The workmanship that underpins the Peterson Farmhouse's significance remains virtually unchanged since its construction in the 1880s. Elements such as the gable ridge with ornamental kingpost remain intact. The addition of a single-story extension to the rear of the house, and the enclosure of the second-story porch above the main entry, are minor changes that do not undermine the way the structures convey their original construction. The tank house, which likely dates to the 1920s, conveys its fundamental construction, both in its rustic sided exterior and its 8" X 8" interior posts. Since changes are relatively minor and do not change the bulk of the material used to construct the farmhouse and the tank house. Therefore, the Peterson Farmhouse retains integrity of **workmanship**.

The Peterson Farmhouse remains surrounded by mature trees, some dating to and others that have been planted since the period of significance. Though there are newer landscape features, including younger plants, the area immediately surrounding the farmhouse is dominated by venerable palm and mulberry trees. The carport, located between the house and tank house, is the only new construction on the parcel and is made of plywood and two-by-fours and as such is a transient feature. The farmhouse is still able to evoke the feeling of a bygone era in California history and therefore retains integrity of **feeling**.

The Peterson Farmhouse, buildings, and landscape have changed little since they were initially evaluated in 1995; they remain an increasingly rare, small rural pocket of Alameda County that evinces a clear association with its origins in the fruit-growing district of Washington Township. Therefore, the Peterson Farmhouse retains its integrity of **association**.

The Peterson Farmhouse retains moderate integrity of location, setting, design, material, workmanship, feeling, and association, and therefore retains its ability to convey its significance.

CONTINUATION SHEET

Property Name: John H. Peterson Farm

Page 6 of 16

Period of significance: (1884-1930)

Contributing Features:

The farmhouse, excluding the two rear additions,
The tank house, and
Mature trees in vicinity, two palms, and two mulberry trees.

Character Defining Features:

- Two section plan: a two-story section and a one-story section.
- L-shaped floorplan.
- Moderately sloped roof.
- Bay windows.
- The 45-degree rustic-siding covered angle bays
- Ornamental scroll brackets above the corner double-hung windows.
- Fish-scale shingle covered second-story exterior walls.
- Two gables above fish-scale shingle walls.
- Arched ornamental brackets above the front porch on the east and north sides.
- Tank house with rustic siding and vertical corner boards; wood frame, 8" X 8" posts, and diagonal braces set on a wood sill and brick foundation on concrete; flat roof with a shallow eave; and the entry on the south end of the east elevation.

Historic Resource Boundary:

The boundary of the historic resource has shrunk, from slightly more than one acre to about .50 acres (See Photos 9, the 1995 boundary, and Photo 10, the 2020 boundary). The area of the historic resource is limited to include the farmhouse, the mature trees adjacent to the farmhouse, and the tank house. The resource boundaries immediately enclose those features in an L-shape with maximum dimensions of approximately 120 feet east-west and approximately 105 feet north-south.

CONTINUATION SHEET

Property Name: John H. Peterson Farm

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Photo 1. Facing east. Peterson's Queen Anne farm house.

CONTINUATION SHEET

Property Name: John H. Peterson Farm

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Photo 2. Facing south. Mature trees (Mulberry and Palm), farm house, and carport (right, rear).

CONTINUATION SHEET

Property Name: John H. Peterson Farm

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Photo 3. Facing southwest with carport in foreground and vine-covered tank house in rear.

CONTINUATION SHEET

Property Name: John H. Peterson Farm

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Photo 4. Facing northwest toward house to line of relatively recent and non-contributing trees, suggesting relative enclosure of Farmhouse setting within landscaping.

CONTINUATION SHEET

Property Name: John H. Peterson Farm

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Photo 5. Facing southeast showing front entrance and second-story porch-to-bathroom conversion.

CONTINUATION SHEET

Property Name: John H. Peterson Farm

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Photo 6. Facing northwest from front entrance showing probable original material construction along with minor addition; note the opening in ceiling and the vertical drain pipe.

CONTINUATION SHEET

Property Name: John H. Peterson Farm

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Photo 7. Facing southeast toward the reconstructed barn, a non-contributing feature.

CONTINUATION SHEET

Property Name: John H. Peterson Farm

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Photo 8. facing northeast toward reconstructed barn.

CONTINUATION SHEET

Property Name: John H. Peterson Farm

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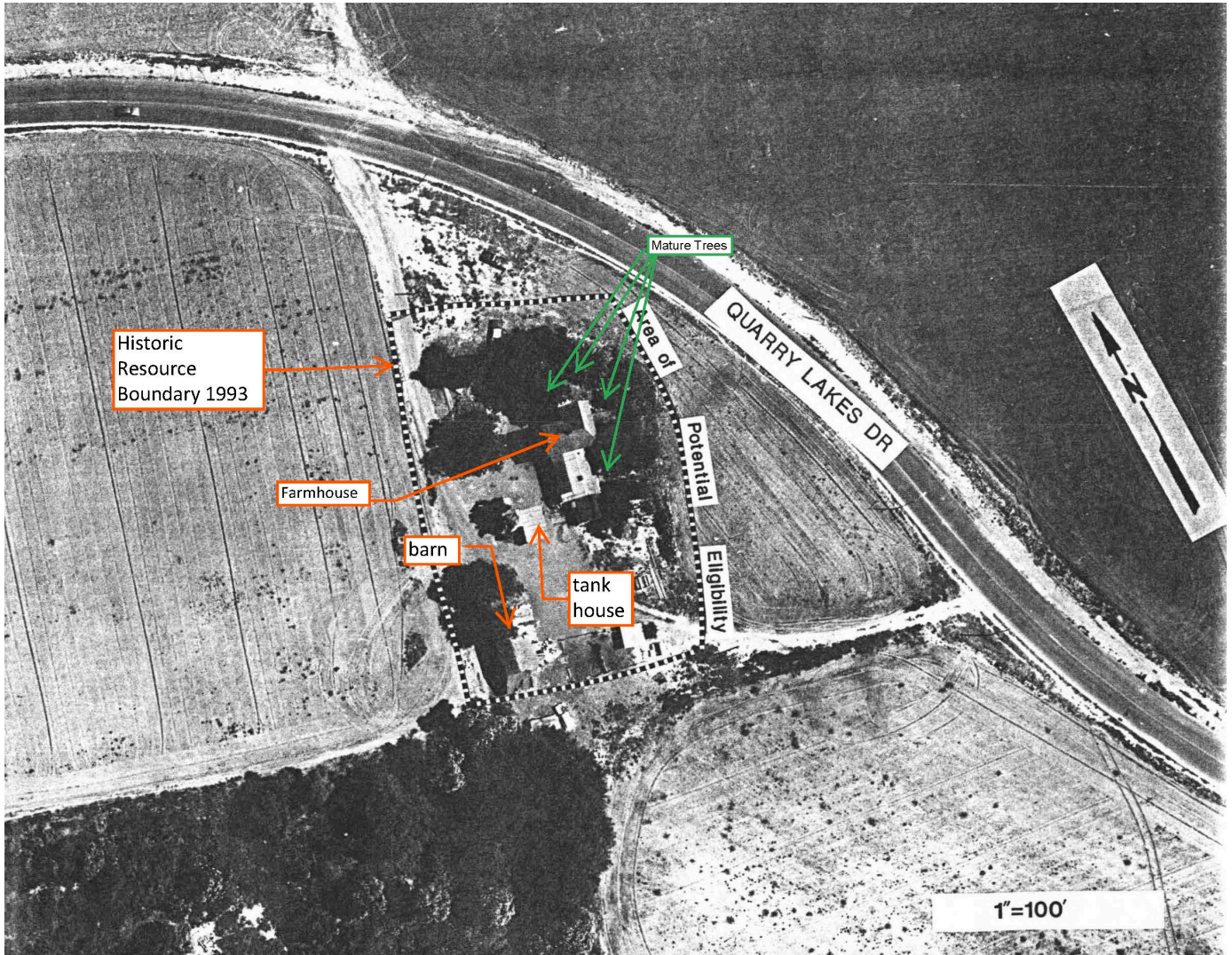


Photo 9. Historic Resources/Boundary 1995.

CONTINUATION SHEET

Property Name: John H. Peterson Farm

Page 16 of 16

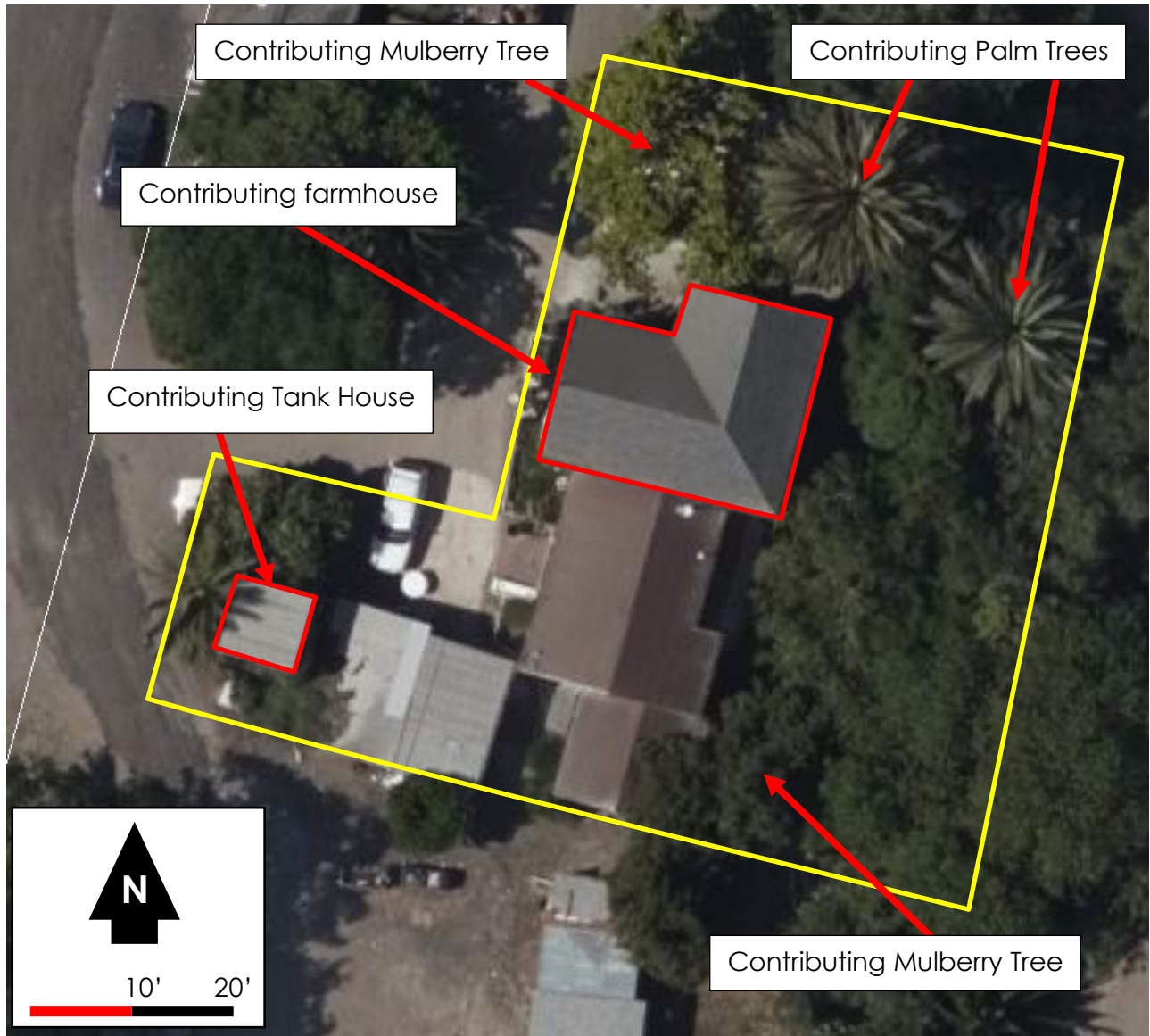


Photo 10. Historic Boundary and contributing features, 2020.

Union City Station District Specific Plan
Assembly Bill 52 and Senate Bill 18 Consultation Log

No.	Date	To/From ICF	ICF Contact	Contact	Address	Phone #	Email	Organization Affiliation	Tribal Affiliation	Contact Type	Subject	Comments
1	23-Feb-21	from	Lily Arias	NAHC	1550 Harbor Blvd, Suite 100 West Sacramento, CA 95691	916.373.3710	nahc@nahc.ca.gov	NAHC	n/a	email with attached request form and map	A request for a search of the SLF and list of representatives under AB52 and SB18	
2	8-Mar-21	to	Lily Arias	NAHC	1550 Harbor Blvd, Suite 100 West Sacramento, CA 95691	916.373.3710	nahc@nahc.ca.gov	NAHC	n/a	email with attached SLF search finding and list of contacts	SLF search results and list of representatives under AB52 and SB18	
3	23-Jun-21	from	Jennifer Wildt	Irenne Zwierlein, Chairperson	789 Canada Road, Woodside, CA, 94062	650.851.7489 (p) 650.332.1526 (f)	amahmutsuntribal@gmail.com	Amah Mutsun Tribal Band of Mission San Juan Bautista	Costanoan	Certified Mail	Formal Notification under SB 18 and AB 52 for the Union City Station District Specific Plan Project, located in the Union City, Alameda County	email
4	23-Jun-21	from	Jennifer Wildt	Tony Cerda, Chairperson	244 E. 1st Street Pomona, CA 91766	909.629.6081 (p) 909.524.8041 (f)	rumsen@aol.com	Costanoan Rumsen Carmel Tribe	Costanoan	Certified Mail	Formal Notification under SB 18 and AB 52 for the Union City Station District Specific Plan Project, located in the Union City, Alameda County	email
5	23-Jun-21	from	Jennifer Wildt	Ann Marie Sayers, Chairperson	P.O. Box 28 Hollister, CA 95024	831.637.4238 (p)	ams@indiancanyon.org	Indian Canyon Mutsun Band of Costanoan	Costanoan	Certified Mail	Formal Notification under SB 18 and AB 52 for the Union City Station District Specific Plan Project, located in the Union City, Alameda County	email
6	23-Jun-21	from	Jennifer Wildt	Charlene Nijmeh, Chairperson	20885 Redwood Road, Suite 232 Castro Valley, CA 94546	408.464.2892	cnijmeh@muwekma.org	Muwekma Ohlone Indian Tribe of the SF Bay Area	Costanoan	Email (recipient prefers email commun	Formal Notification under SB 18 and AB 52 for the Union City Station District Specific Plan Project, located in the Union City, Alameda County	email
7	23-Jun-21	from	Jennifer Wildt	Monica Arellano	20885 Redwood Road, Suite 232 Castro Valley, CA 94546	408.205.9714	marellano@muwekma.org	Muwekma Ohlone Indian Tribe of the SF Bay Area	Costanoan	Email (recipient prefers email commun	Formal Notification under SB 18 and AB 52 for the Union City Station District Specific Plan Project, located in the Union City, Alameda County	email
8	23-Jun-21	from	Jennifer Wildt	Andrew Galvan	P.O. Box 3388 Fremont, CA 94539	510.882.0527 (p) 510.687.9393 (f)	chochenyo@AOL.com	The Ohlone Indian Tribe	Bay Miwok, Ohlone, Patwin, and Plains Miwok	Email (recipient prefers email commun	Formal Notification under SB 18 and AB 52 for the Union City Station District Specific Plan Project, located in the Union City, Alameda County	email
9	23-Jun-21	from	Jennifer Wildt	Kanyon Sayers-Roods, MLD Contact	1615 Pearson Court, San Jose, CA, 95122	(408) 673 - 0626	kanyon@kanyonkonsulting.com	Indian Canyon Mutsun Band of Costanoan	Costanoan		Formal Notification under SB 18 and AB 52 for the Union City Station District Specific Plan Project, located in the Union City, Alameda County	email
10	23-Jun-21	from	Jennifer Wildt	Timothy Perez	P.O. Box 717, Linden, CA, 95236	(209) 662 - 2788	huskanam@gmail.com	North Valley Yokuts Tribe	Costanoan, Northern Valley, Yokut		Formal Notification under SB 18 and AB 52 for the Union City Station District Specific Plan Project, located in the Union City, Alameda County	email
11	23-Jun-21	from	Jennifer Wildt	Katherine Perez, Chairperson	P.O. Box 717, Linden, CA, 95236	(209) 887 - 3415	canutes@verizon.net	North Valley Yokuts Tribe	Costanoan, Northern Valley, Yokut		Formal Notification under SB 18 and AB 52 for the Union City Station District Specific Plan Project, located in the Union City, Alameda County	email
12	23-Jun-21	from	Jennifer Wildt	Corrina Gould, Chairperson	10926 Edes Avenue, Oakland, CA, 94603	(510) 575 - 8408	cyltribe@gmail.com	The Confederated Villages of Lisjan	Bay Miwok, Ohlone, Delta Yokut		Formal Notification under SB 18 and AB 52 for the Union City Station District Specific Plan Project, located in the Union City, Alameda County	email
13	23-Jun-21	from	Jennifer Wildt	Dee Dee Ybarra, Chairperson	14671 Farmington Street, Hesperia, CA, 92345	(760) 403 - 1756	rumsenama@gmail.com	Rumsen Am: a Tur:ataj Ohlone	Costanoan		Formal Notification under SB 18 and AB 52 for the Union City Station District Specific Plan Project, located in the Union City, Alameda County	email

Local Government Tribal Consultation List Request

Native American Heritage Commission

1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691
916-373-3710
916-373-5471 – Fax
nahc@nahc.ca.gov

Type of List Requested

CEQA Tribal Consultation List (AB 52) – *Per Public Resources Code § 21080.3.1, subs. (b), (d), (e) and 21080.3.2*

General Plan (SB 18) - *Per Government Code § 65352.3.*

Local Action Type:

___ General Plan ___ General Plan Element ___ General Plan Amendment

___ Specific Plan ___ Specific Plan Amendment ___ Pre-planning Outreach Activity

Required Information

Project Title: _____

Local Government/Lead Agency: _____

Contact Person: _____

Street Address: _____

City: _____ Zip: _____

Phone: _____ Fax: _____

Email: _____

Specific Area Subject to Proposed Action

County: _____ City/Community: _____

Project Description:

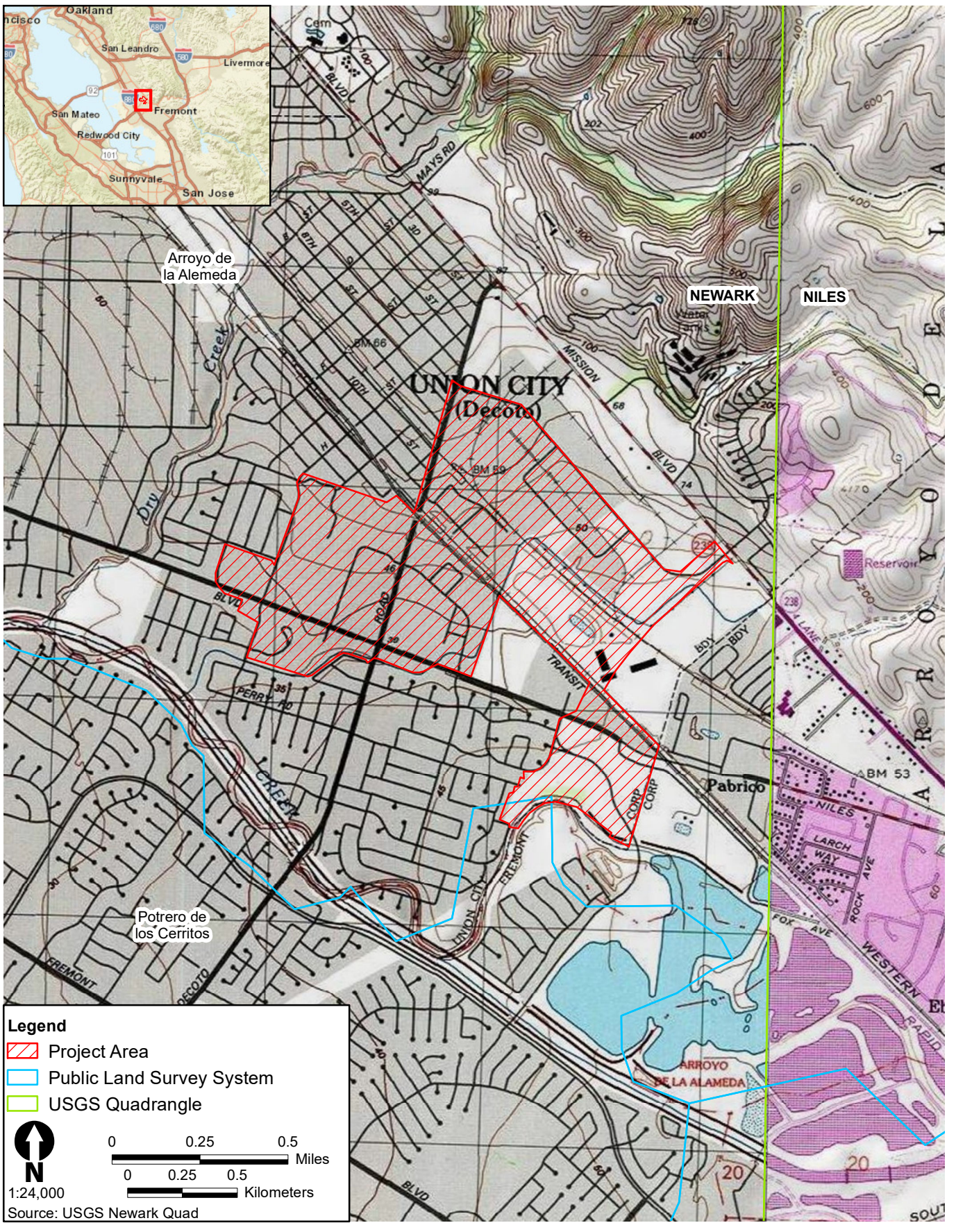
Additional Request

Sacred Lands File Search - *Required Information:*

USGS Quadrangle Name(s): _____

Township: _____ Range: _____ Section(s): _____

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Legend

- Project Area
- Public Land Survey System
- USGS Quadrangle

N

0 0.25 0.5 Miles

0 0.25 0.5 Kilometers

1:24,000

Source: USGS Newark Quad



**Project Area
Station District Specific Plan Project**

June 23, 2021

Monica Arellano
Muwekma Ohlone Indian Tribe of the SF Bay Area
20885 Redwood Road, Suite 232
Castro Valley, CA 94546

Subject: Formal Notification under Senate Bill 18 and Assembly Bill 52 for the Union City Station District Specific Plan Project, Union City, Alameda County

Dear Ms. Arellano,

The purpose of this letter is to inform you of the Union City Station District Specific Plan (SDSP). The City of Union City (City) is proposing to prepare a Specific Plan that would guide development of the 471-acre Planning Area around the Union City Intermodal Station (Figure 1). The Union City 2040 General Plan adopted in December 2019 calls for Station District to continue evolving into a higher intensity, walkable, transit-oriented district. Consistent with the General Plan, the SDSP currently in preparation envisions the area to contain a mix of residential, employment, retail, and civic uses, complemented by engaging and attractive public space. These uses will be distributed, mixed, and focused in different subareas throughout the Station District. The SDSP will also aim to enhance multimodal connectivity, in which getting around by walking, biking, and transit is convenient and enjoyable. Buildout of the SDSP would include ground disturbance within the Planning Area. These activities require analysis under the California Environmental Quality Act (CEQA). The City is the lead agency under CEQA.

Please consider this letter and preliminary project information as formal notification of a proposed project as required under both the Senate Bill 18 (SB 18) process for the SDSP, as described in Government Code § 65352.3 and the Assembly Bill 52 (AB 52) process for the SDSP, as described under the CEQA Public Resources Code § 21080.3.1 and Chapter 532 Statutes of 2014.

On February 23, 2021, ICF requested a literature search from the Northwest Information Center (NWIC) of the California Historical Resources Information System (CHRIS). The NWIC literature search identified two previously recorded prehistoric archaeological sites within 0.25-mile of the Planning Area.

On February 23, 2021, ICF also requested a search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF). The SLF search identified sacred lands in the vicinity of the Planning Area. The NAHC also provided your name as a representative of a California Native American Tribe who may have knowledge of cultural resources within or near the Planning Area.

CITY OF UNION CITY

34009 Alvarado-Niles Rd • Union City • CA • 94587
unioncity.org

On behalf of the City, ICF would like to provide you with an opportunity to communicate concerns you might have regarding places within the Planning Area that may be important to your community. The City requests your participation in the identification and protection of cultural resources, sacred lands or other heritage sites within the above described Planning Area with the understanding that you or other members of the community might possess specialized knowledge of the area.

If you have any questions or concerns please feel free to contact me by phone, (202) 491-6198, or by email, jennifer.wildt@icf.com. Thank you very much for your interest and assistance.

Sincerely,



Jennifer Wildt, Ph.D., RPA
Senior Archaeologist
ICF
201 Mission Street, Suite 1500
San Francisco, CA 94105

Attachments:

Figure 1, *Union City Station District Specific Plan Project*

Document Path: \\PDC\ITRDS\GIS\1\Projects_1\City of UnionCity\00000_00_UC_StationDistrictAnalyses\Doc\IERV1_DEIR\01_ADEIR\CulturalResources\NAHC_20210223.mxd

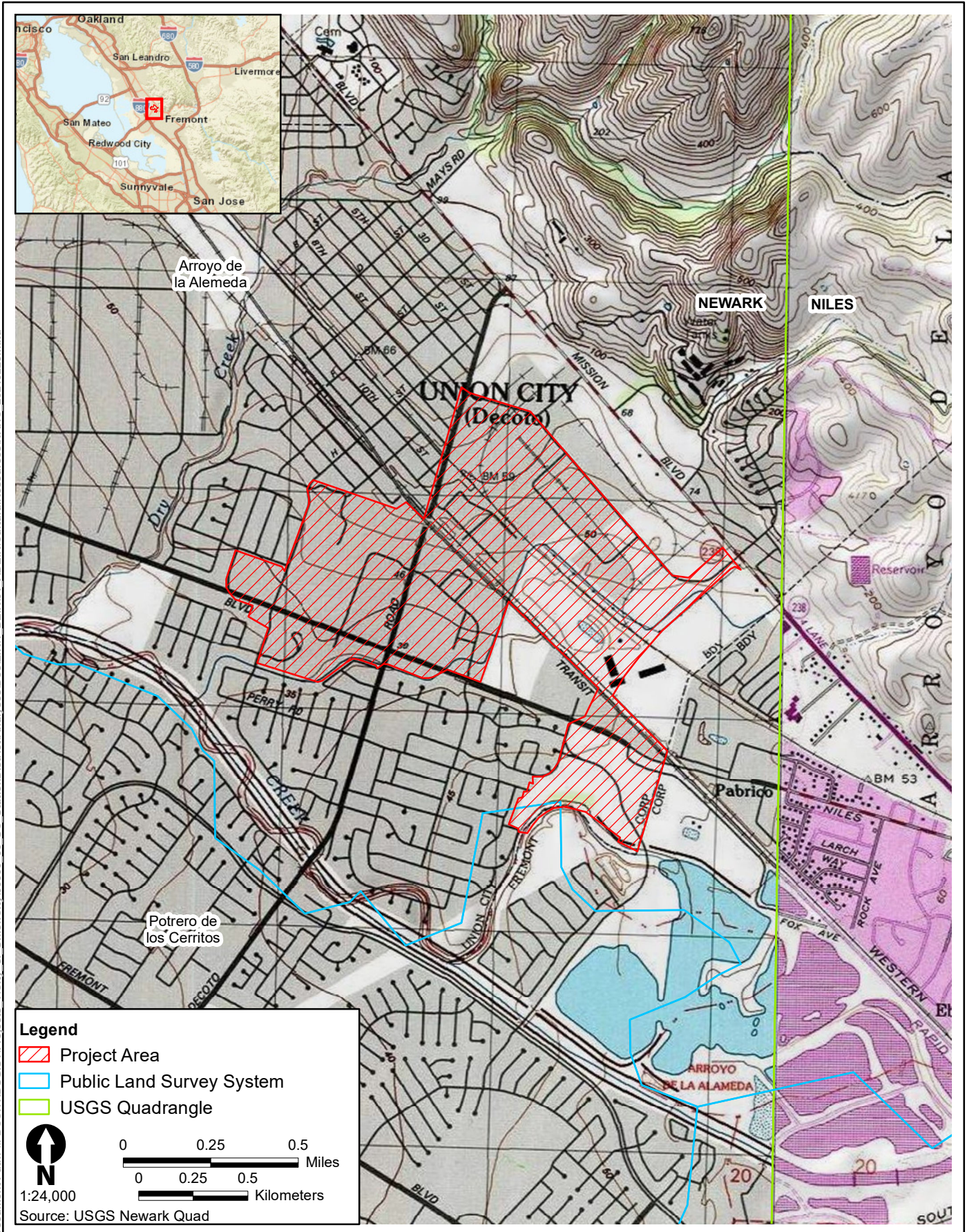


Figure 1. Project Area
Union City Station District
Specific Plan Project



June 23, 2021

Tony Cerda, Chairperson
Costanoan Rumsen Carmel Tribe
244 E. 1st Street
Pomona, CA 91766

Subject: Formal Notification under Senate Bill 18 and Assembly Bill 52 for the Union City Station District Specific Plan Project, Union City, Alameda County

Dear Mr. Cerda,

The purpose of this letter is to inform you of the Union City Station District Specific Plan (SDSP). The City of Union City (City) is proposing to prepare a Specific Plan that would guide development of the 471-acre Planning Area around the Union City Intermodal Station (Figure 1). The Union City 2040 General Plan adopted in December 2019 calls for Station District to continue evolving into a higher intensity, walkable, transit-oriented district. Consistent with the General Plan, the SDSP currently in preparation envisions the area to contain a mix of residential, employment, retail, and civic uses, complemented by engaging and attractive public space. These uses will be distributed, mixed, and focused in different subareas throughout the Station District. The SDSP will also aim to enhance multimodal connectivity, in which getting around by walking, biking, and transit is convenient and enjoyable. Buildout of the SDSP would include ground disturbance within the Planning Area. These activities require analysis under the California Environmental Quality Act (CEQA). The City is the lead agency under CEQA.

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Sincerely,



Jennifer Wildt, Ph.D., RPA
Senior Archaeologist
ICF
201 Mission Street, Suite 1500
San Francisco, CA 94105

Attachments:

Figure 1, *Union City Station District Specific Plan Project*

June 23, 2021

Andrew Galvan
The Ohlone Indian Tribe
P.O. Box 3388
Fremont, CA 94539

Subject: Formal Notification under Senate Bill 18 and Assembly Bill 52 for the Union City Station District Specific Plan Project, Union City, Alameda County

Dear Mr. Galvan,

The purpose of this letter is to inform you of the Union City Station District Specific Plan (SDSP). The City of Union City (City) is proposing to prepare a Specific Plan that would guide development of the 471-acre Planning Area around the Union City Intermodal Station (Figure 1). The Union City 2040 General Plan adopted in December 2019 calls for Station District to continue evolving into a higher intensity, walkable, transit-oriented district. Consistent with the General Plan, the SDSP currently in preparation envisions the area to contain a mix of residential, employment, retail, and civic uses, complemented by engaging and attractive public space. These uses will be distributed, mixed, and focused in different subareas throughout the Station District. The SDSP will also aim to enhance multimodal connectivity, in which getting around by walking, biking, and transit is convenient and enjoyable. Buildout of the SDSP would include ground disturbance within the Planning Area. These activities require analysis under the California Environmental Quality Act (CEQA). The City is the lead agency under CEQA.

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Senior Archaeologist
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201 Mission Street, Suite 1500
San Francisco, CA 94105

Attachments:

Figure 1, *Union City Station District Specific Plan Project*

June 23, 2021

Corrina Gould, Chairperson
The Confederated Villages of Lisjan
10926 Edes Avenue
Oakland, CA, 94603

Subject: Formal Notification under Senate Bill 18 and Assembly Bill 52 for the Union City Station District Specific Plan Project, Union City, Alameda County

Dear Ms. Gould,

The purpose of this letter is to inform you of the Union City Station District Specific Plan (SDSP). The City of Union City (City) is proposing to prepare a Specific Plan that would guide development of the 471-acre Planning Area around the Union City Intermodal Station (Figure 1). The Union City 2040 General Plan adopted in December 2019 calls for Station District to continue evolving into a higher intensity, walkable, transit-oriented district. Consistent with the General Plan, the SDSP currently in preparation envisions the area to contain a mix of residential, employment, retail, and civic uses, complemented by engaging and attractive public space. These uses will be distributed, mixed, and focused in different subareas throughout the Station District. The SDSP will also aim to enhance multimodal connectivity, in which getting around by walking, biking, and transit is convenient and enjoyable. Buildout of the SDSP would include ground disturbance within the Planning Area. These activities require analysis under the California Environmental Quality Act (CEQA). The City is the lead agency under CEQA.

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Sincerely,



Jennifer Wildt, Ph.D., RPA
Senior Archaeologist
ICF
201 Mission Street, Suite 1500
San Francisco, CA 94105

Attachments:

Figure 1, *Union City Station District Specific Plan Project*

June 23, 2021

Katherine Perez
North Valley Yokuts Tribe
P.O. Box 717
Linden, CA, 95236

Subject: Formal Notification under Senate Bill 18 and Assembly Bill 52 for the Union City Station District Specific Plan Project, Union City, Alameda County

Dear Ms. Perez,

The purpose of this letter is to inform you of the Union City Station District Specific Plan (SDSP). The City of Union City (City) is proposing to prepare a Specific Plan that would guide development of the 471-acre Planning Area around the Union City Intermodal Station (Figure 1). The Union City 2040 General Plan adopted in December 2019 calls for Station District to continue evolving into a higher intensity, walkable, transit-oriented district. Consistent with the General Plan, the SDSP currently in preparation envisions the area to contain a mix of residential, employment, retail, and civic uses, complemented by engaging and attractive public space. These uses will be distributed, mixed, and focused in different subareas throughout the Station District. The SDSP will also aim to enhance multimodal connectivity, in which getting around by walking, biking, and transit is convenient and enjoyable. Buildout of the SDSP would include ground disturbance within the Planning Area. These activities require analysis under the California Environmental Quality Act (CEQA). The City is the lead agency under CEQA.

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Sincerely,



Jennifer Wildt, Ph.D., RPA
Senior Archaeologist
ICF
201 Mission Street, Suite 1500
San Francisco, CA 94105

Attachments:

Figure 1, *Union City Station District Specific Plan Project*

June 23, 2021

Charlene Nijmeh, Chairperson
Muwekma Ohlone Indian Tribe of the SF Bay Area
20885 Redwood Road, Suite 232
Castro Valley, CA 94546

Subject: Formal Notification under Senate Bill 18 and Assembly Bill 52 for the Union City Station District Specific Plan Project, Union City, Alameda County

Dear Ms. Nijmeh,

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Attachments:

Figure 1, *Union City Station District Specific Plan Project*

June 23, 2021

Ann Marie Sayers, Chairperson
Indian Canyon Mutsun Band of Costanoan
P.O. Box 28
Hollister, CA 95024

Subject: Formal Notification under Senate Bill 18 and Assembly Bill 52 for the Union City Station District Specific Plan Project, Union City, Alameda County

Dear Ms. Sayers,

The purpose of this letter is to inform you of the Union City Station District Specific Plan (SDSP). The City of Union City (City) is proposing to prepare a Specific Plan that would guide development of the 471-acre Planning Area around the Union City Intermodal Station (Figure 1). The Union City 2040 General Plan adopted in December 2019 calls for Station District to continue evolving into a higher intensity, walkable, transit-oriented district. Consistent with the General Plan, the SDSP currently in preparation envisions the area to contain a mix of residential, employment, retail, and civic uses, complemented by engaging and attractive public space. These uses will be distributed, mixed, and focused in different subareas throughout the Station District. The SDSP will also aim to enhance multimodal connectivity, in which getting around by walking, biking, and transit is convenient and enjoyable. Buildout of the SDSP would include ground disturbance within the Planning Area. These activities require analysis under the California Environmental Quality Act (CEQA). The City is the lead agency under CEQA.

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Attachments:

Figure 1, *Union City Station District Specific Plan Project*

June 23, 2021

Kanyon Sayers-Roods, MLD Contact
Indian Canyon Mutsun Band of Costanoan
1615 Pearson Court
San Jose, CA, 95122

Subject: Formal Notification under Senate Bill 18 and Assembly Bill 52 for the Union City Station District Specific Plan Project, Union City, Alameda County

Dear Ms. Sayers-Roods,

The purpose of this letter is to inform you of the Union City Station District Specific Plan (SDSP). The City of Union City (City) is proposing to prepare a Specific Plan that would guide development of the 471-acre Planning Area around the Union City Intermodal Station (Figure 1). The Union City 2040 General Plan adopted in December 2019 calls for Station District to continue evolving into a higher intensity, walkable, transit-oriented district. Consistent with the General Plan, the SDSP currently in preparation envisions the area to contain a mix of residential, employment, retail, and civic uses, complemented by engaging and attractive public space. These uses will be distributed, mixed, and focused in different subareas throughout the Station District. The SDSP will also aim to enhance multimodal connectivity, in which getting around by walking, biking, and transit is convenient and enjoyable. Buildout of the SDSP would include ground disturbance within the Planning Area. These activities require analysis under the California Environmental Quality Act (CEQA). The City is the lead agency under CEQA.

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June 23, 2021

Timothy Perez
North Valley Yokuts Tribe
P.O. Box 717
Linden, CA, 95236

Subject: Formal Notification under Senate Bill 18 and Assembly Bill 52 for the Union City Station District Specific Plan Project, Union City, Alameda County

Dear Mr. Perez,

The purpose of this letter is to inform you of the Union City Station District Specific Plan (SDSP). The City of Union City (City) is proposing to prepare a Specific Plan that would guide development of the 471-acre Planning Area around the Union City Intermodal Station (Figure 1). The Union City 2040 General Plan adopted in December 2019 calls for Station District to continue evolving into a higher intensity, walkable, transit-oriented district. Consistent with the General Plan, the SDSP currently in preparation envisions the area to contain a mix of residential, employment, retail, and civic uses, complemented by engaging and attractive public space. These uses will be distributed, mixed, and focused in different subareas throughout the Station District. The SDSP will also aim to enhance multimodal connectivity, in which getting around by walking, biking, and transit is convenient and enjoyable. Buildout of the SDSP would include ground disturbance within the Planning Area. These activities require analysis under the California Environmental Quality Act (CEQA). The City is the lead agency under CEQA.

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June 23, 2021

Dee Dee Ybarra, Chairperson
Rumsen Am:a Tur:ataj Ohlone
14671 Farmington Street
Hesperia, CA, 92345

Subject: Formal Notification under Senate Bill 18 and Assembly Bill 52 for the Union City Station District Specific Plan Project, Union City, Alameda County

Dear Ms. Ybarra,

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June 23, 2021

Irenne Zwierlein, Chairperson
Amah Mutsun Tribal Band of Mission San Juan Bautista
789 Canada Road
Woodside, CA, 94062

Subject: Formal Notification under Senate Bill 18 and Assembly Bill 52 for the Union City Station District Specific Plan Project, Union City, Alameda County

Dear Ms. Zwierlein,

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