

Air Quality Assessment
U-Haul Moving & Storage of Bakersfield
Bakersfield, California

Prepared by:



Expect More. Experience Better.

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Appendix A: Air Quality Modeling Data

LIST OF ABBREVIATED TERMS

AQMP	Air quality management plan
AB	Assembly Bill
ADT	Average daily traffic
APN	Assessor's Parcel Number
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CAAQS	California Ambient Air Quality Standards
CCAA	California Clean Air Act
CalEEMod	California Emissions Estimator Model
CEQA	California Environmental Quality Act
CO	Carbon monoxide
cy	Cubic yards
DPM	Diesel particulate matter
EPA	Environmental Protection Agency
FCAA	Federal Clean Air Act
H ₂ S	Hydrogen sulfide
HRA	Health Risk Assessment
Pb	Lead
µg/m ³	Micrograms per cubic meter
mg/m ³	Milligrams per cubic meter
NAAQS	National Ambient Air Quality Standards
NO ₂	Nitrogen dioxide
NO _x	Nitrogen oxide
O ₃	Ozone
PM ₁₀	Particulate matter less than 10 microns in diameter
PM _{2.5}	Particulate matter less than 2.5 microns in diameter
ppm	Parts per million
ROG	Reactive organic gases
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
SB	Senate Bill
SJVAB	San Joaquin Valley Air Basin
SJVAPCD	San Joaquin Valley Air Pollution Control District
sf	Square foot
SO ₄₋₂	Sulfates
SO ₂	Sulfur dioxide
TAC	Toxic air contaminant
C ₂ H ₃ Cl	Vinyl chloride
VOC	Volatile organic compound

1 INTRODUCTION

This report documents the results of an Air Quality Assessment completed for the U-Haul Moving & Storage of Bakersfield (“Project” or “proposed Project”). The purpose of this Air Quality Assessment is to evaluate the potential construction and operational emissions associated with the Project and determine the level of impact the Project would have on the environment.

1.1 Project Location

The Project site is located at 9407 South H Street in the City of Bakersfield, Kern County, California. The 11.2-acre Project site is legally described as Assessor Parcel Number (APN) 514-060-05. The vacant site is generally bordered by vacant land, a medical clinic, senior center and park-and-ride lot to the north; single-family residences with outbuildings and horse stables to the south; South H Street and a single-family residential development south of the roadway; and Highway 99 to the west. Regional vehicular access to the Project site is provided from Highway 99 at Taft Highway to the south and Hosking Avenue to the north. Local access is currently provided from South H Street; refer to [Exhibit 1: Regional Vicinity Map](#) and [Exhibit 2: Site Vicinity](#).

1.2 Project Description

Site Development

The proposed Project would include three at-grade buildings (Buildings A, B, and C) with associated surface parking areas for employees and customers, as well as for-rent vehicles and large vehicle storage. It is anticipated that construction would take approximately 8 to 12 months.

Building A would be located in the northwest portion of the Project site. The 4-story, approximately 133,640 gross square feet (gsf) building would be an indoor, climate controlled self-storage facility with a rental office/showroom on the southwest corner of the building. A manager’s living unit would also be located within the building. All storage units would be accessed from within the building. No outdoor/drive-up storage units would be provided.

Building B would be located in the northeast portion of the project site near South H Street. The 1-story, approximately 32,421 gsf building would be a “U-Box” container facility. U-Box is a portable moving and storage container that can be delivered to an off-site location for temporary storage, returned to the U-Haul facility for storage, or shipped to a designated location. No on-site access is provided to customers for stored U-Box containers. A truck loading ramp and dock door would be located on the east side of the building, near the southernmost driveway.

Building C would be located in the southern portion of the Project site. The 2-story, 32,421 gsf structure would be a mechanical shop building for the inspection and repair of rental equipment and vehicles. The building would include an employee lounge and lockers. The second story would include three office spaces.

Vehicle storage space would be provided for recreational vehicles, trailers, and passenger vehicles. The uncovered parking spaces are proposed along the western Project boundary. Approximately 20 spaces would be provided. This area could also accommodate rental vehicles and equipment. Moving truck and

trailer rentals would be parked on the Project site. Two shunting areas are proposed on the Project site. One area would be located between Building A and Building B. The other shunting area would be located in the central portion of the Project north of Building C. Shunting areas are staging areas for pick up and drop off on rental vehicles and equipment. Depending on the size of the vehicles and equipment, which can range in length from approximately 10 to 30 feet, these areas can accommodate approximately 30 to 50 vehicles.

The proposed Project requires a General Plan land use amendment and a zone change. The existing Bakersfield General Plan Land Use Element land use designation for the Project site is Suburban Residential. The General Plan notes that this designation assumes four or fewer dwelling units per acre. The proposed General Plan land use designation is Light Industrial. This designation permits industrial uses at up to six stories with a floor area ratio (FAR) of 1.

The existing zoning designation on the site is Agriculture and the proposed designation is M-1, Light Manufacturing. The maximum building height in the M-1 zone is 6 stories not exceeding 75 feet.

Access and Parking

There is currently no vehicular access to the Project site or sidewalks along the South H Street frontage. No street lighting is provided on South H Street between the medical clinic to the north and Taft Highway to the south. South H Street is designated as an Arterial in the City of Bakersfield General Plan Circulation Element. The Project requires a 55-foot setback right-of-way dedication along the Project site frontage on South H Street for the future widening of the roadway by the City of Bakersfield. Ingress and egress would be provided from three, full access unsignalized driveway along South H Street. The northernmost driveway would be closest to Building A and Building B. The two additional driveways would be located near the center of the South H Street Project site frontage and adjacent to the southern boundary of the Project site.

The anticipated hours of operation would be Monday through Thursday and Saturday from 7 AM to 7 PM, Friday from 7 AM to 8 PM, and Sunday from 9 AM to 5 PM. Outside of these hours, the gates would be locked. Access to the Building A self-storage units is available 24 hours each day with the customer's gate code into the Project site and the building. The Maintenance facility (Building C) would operate Monday through Friday from 7 AM to 5 PM.

Ten parking spaces would be provided for Building A. These spaces would be accessible to customers and the on-site facility manager. Employee parking would be provided proximate to Building C.

With respect to non-vehicular access, a proposed Class 1, Multi-Use Path and a Class 3, Bike Route are proposed by the City of Bakersfield on South H Street between Panama Lane to the north and Taft Highway to the south (source: City of Bakersfield Bicycle Transportation Plan). There is an existing southbound bus stop north of the site in front of the Greenfield Senior Center.

Landscaping

Based on the City of Bakersfield Municipal Code Section 17.61.030, a 15-foot-wide landscape area would be required along South H Street, as measured from the right-of-way line. Along street frontages, trees are required at a ratio of 1 tree per 20 lineal feet but can be clustered. Trees are required in parking areas

and adjacent to buildings fronting onto parking areas. Landscaping would be provided on approximately 15 percent of the Project site (approximately 1.7 acres of the 11.2-acre site).

Along South H Street, the landscape area, inclusive of the setback dedication area, is proposed to include a mix of California sycamore, western rosebud, and Italian stone pine trees, shrubs including a mix of grasses, rosemary and pittosporum, and groundcovers including creeping juniper and trailing Myoporum. The northern and southern site boundaries would be planted with rosemary shrubs. The western boundary of the site adjacent to Highway 99 is proposed to be landscaped with California sycamore and western rosebud trees, shrubs, and groundcovers. Landscaping would conform to the Model Water Efficient Landscaping Ordinance as adopted in California Code of Regulations, Title 23, Chapter 2.7 as adopted by the State of California.

The preliminary site plan is shown in [Exhibit 3a-3b: Site Plan](#).

Construction and Grading

The applicant anticipates that construction would take approximately 8 to 12 months, in the following sequence:

- Site preparation.
- Grading – 100 cubic yards of cut material and 600 cubic yards of fill material, with 500 cubic yards of import. The Project would install all on-site infrastructure (i.e., storm drain, water, wastewater, dry utilities, and street improvements) during grading.
- Building construction.
- Paving and landscaping.

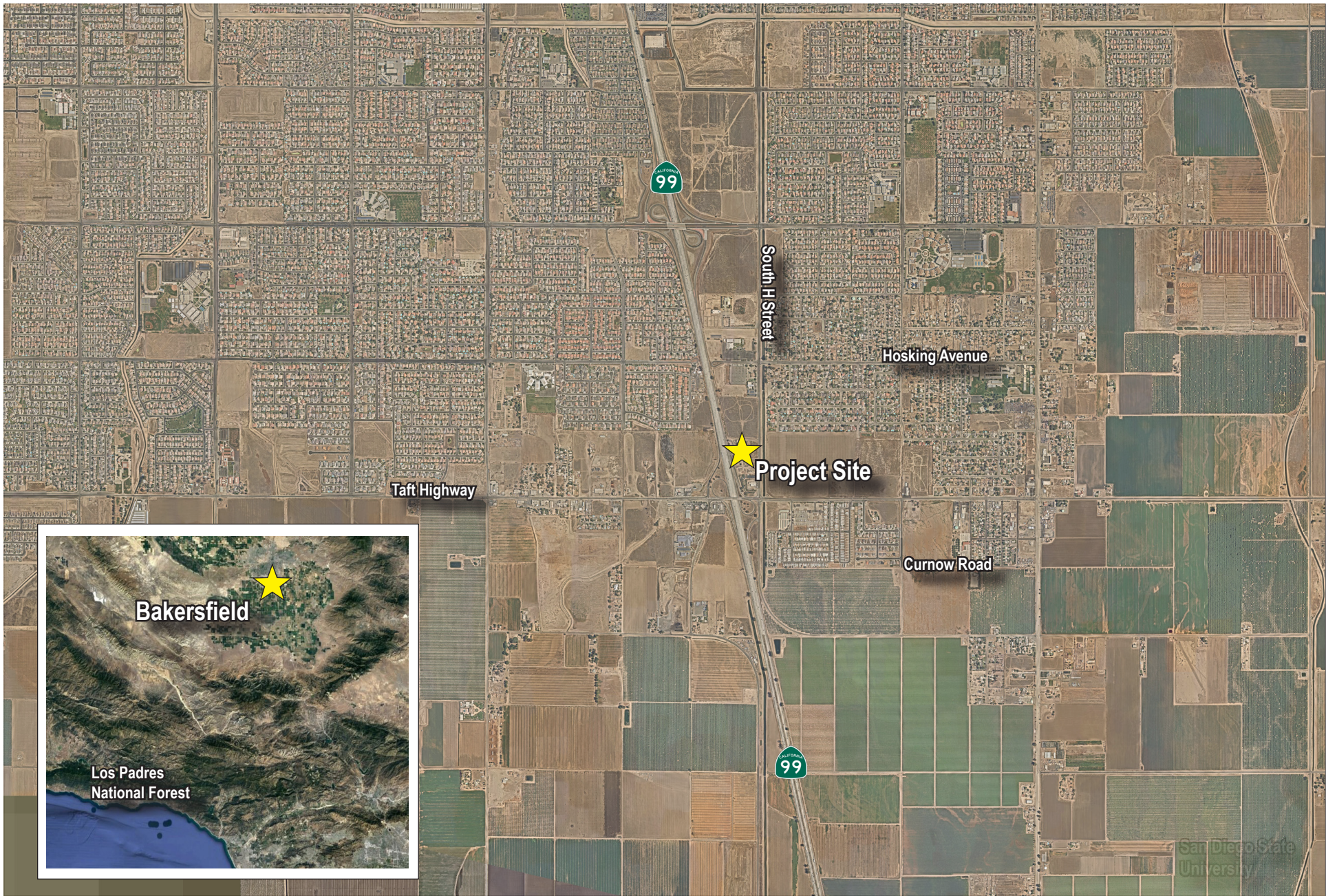


EXHIBIT 1: Regional Vicinity Map
U-Haul Moving & Storage of Bakersfield

NOT TO SCALE



Kimley & Horn



EXHIBIT 2: Site Vicinity
U-Haul Moving & Storage of Bakersfield

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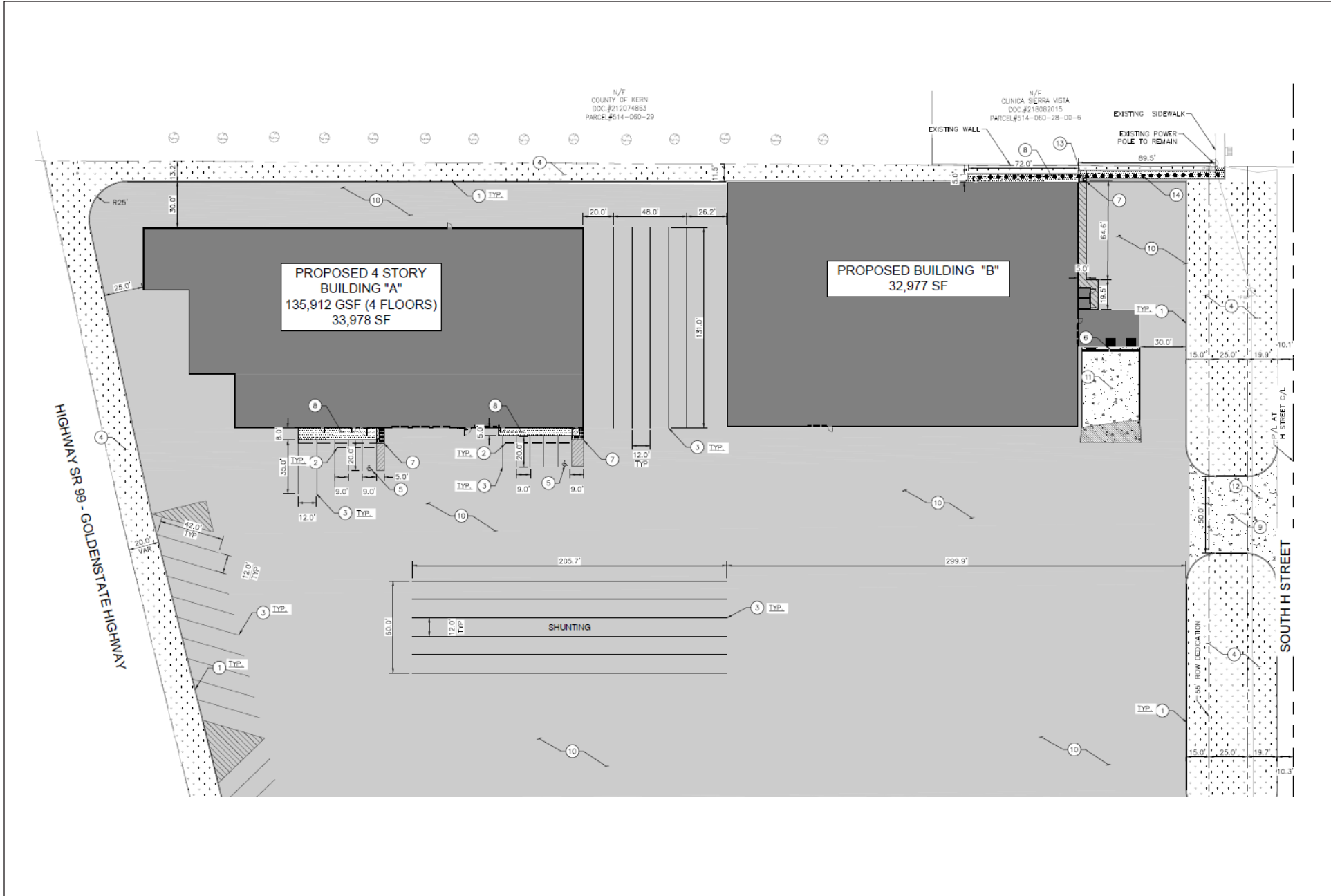


EXHIBIT 3a: Site Plan
 U-Haul Moving & Storage of Bakersfield

NOT TO SCALE



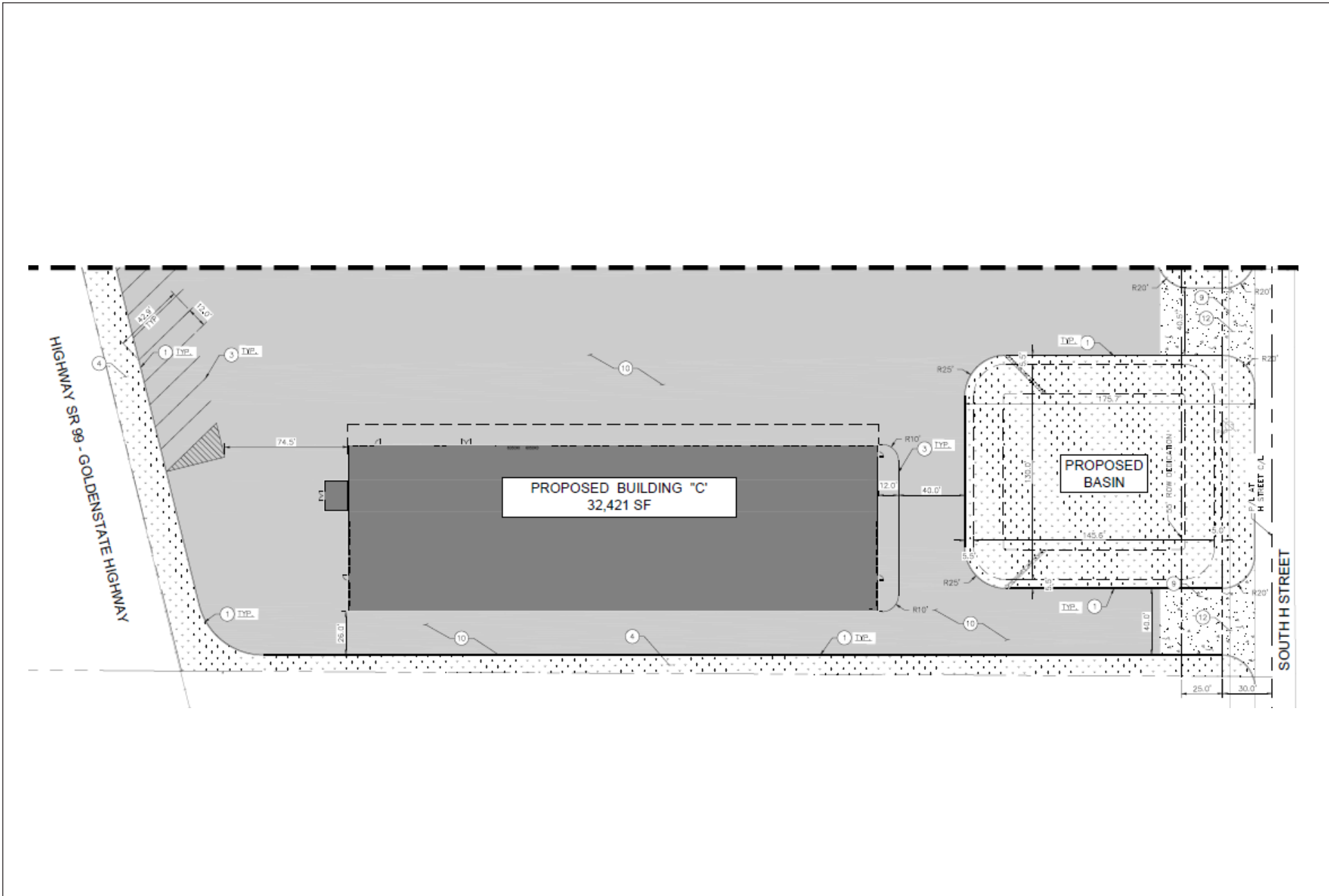


EXHIBIT 3b: Site Plan
 U-Haul Moving & Storage of Bakersfield

NOT TO SCALE



2 ENVIRONMENTAL SETTING

2.1 Climate and Meteorology

The California Air Resources Board (CARB) divides the State into 15 air basins that share similar meteorological and topographical features. The Project is located within the San Joaquin Air Basin (SJVAB). The SJVAB consists of eight counties: Fresno, Kern (western and central), Kings, Tulare, Madera, Merced, San Joaquin, and Stanislaus. Air pollution from significant activities in the SJVAB includes a variety of industrial-based sources as well as on- and off-road mobile sources. These sources, coupled with geographical and meteorological conditions unique to the area, stimulate the formation of unhealthy air. These factors and conditions along with applicable regulations are discussed below.

The SJVAB is approximately 250 miles long and an average of 35 miles wide. It is bordered by the Sierra Nevada in the east, the Coast Ranges in the west, and the Tehachapi mountains in the south. There is a slight downward elevation gradient from Bakersfield in the southeast end (elevation 408 feet) to sea level at the northwest end where the valley opens to the San Francisco Bay at the Carquinez Straits. At its northern end is the Sacramento Valley, which comprises the northern half of California's Central Valley. The bowl-shaped topography inhibits movement of pollutants out of the valley.¹

The SJVAB is in a Mediterranean climate zone and is influenced by a subtropical high-pressure cell most of the year. As a result, the climate is characterized by sparse rainfall, which occurs mainly in winter. Summers are hot and dry. Summertime maximum temperatures often exceed 100 degrees Fahrenheit (°F) in the valley. The SJVAB averages over 260 sunny days per year.

The subtropical high-pressure cell is strongest during spring, summer, and fall and produces subsiding air, which can result in temperature inversions in the valley. A temperature inversion can act like a lid, inhibiting vertical mixing of the air mass at the surface. Any emissions of pollutants can be trapped below the inversion. Most of the surrounding mountains are above the normal height of summer inversions (1,500 to 3,000 feet). Winter-time high pressure events can often last many weeks, with surface temperatures often lowering into the 30°F. During these events, fog can be present, and inversions are extremely strong.

Especially in summer, winds in the San Joaquin Valley most frequently blow from the northwest. The region's topographic features restrict air movement and channel the air mass towards the southeastern end of the valley. Marine air can flow into the basin from the San Joaquin River Delta and over Altamont Pass and Pacheco Pass, where it can flow along the axis of the valley, over the Tehachapi pass, into the Southeast Desert Air Basin. This wind pattern contributes to transporting pollutants from the Sacramento Valley and the Bay Area into the SJVAB. The Coastal Range is a barrier to air movement to the west and the high Sierra Nevada range is a significant barrier to the east (the highest peaks in the southern Sierra Nevada reach almost halfway through the Earth's atmosphere). Many days in the winter are marked by stagnation events where winds are very weak. Transport of pollutants during winter can be very limited. A secondary but significant summer wind pattern is from the southeast and can be associated with nighttime drainage winds, prefrontal conditions, and summer monsoons.

Between winter storms, high pressure and light winds allow cold moist air to pool on the SJVAB floor. This creates strong low-level temperature inversions and very stable air conditions, which can lead to tule fog.

¹ San Joaquin Valley Air Pollution Control District, *Final Draft, Guidance for Assessing and Mitigating Air Quality Impacts*, 2015.

Wintertime conditions favorable to fog formation are also conditions favorable to high concentrations of $PM_{2.5}$ and PM_{10} .

The vertical dispersion of air pollutants in the San Joaquin Valley can be limited by persistent temperature inversions. Air temperature in the lowest layer of the atmosphere typically decreases with altitude. A reversal of this atmospheric state, where the air temperature increases with height, is termed an inversion. The height of the base of the inversion is known as the “mixing height.” This is the level to which pollutants can mix vertically. Mixing of air is minimized above and below the inversion base.

The inversion base represents an abrupt density change where little air movement occurs. Inversion layers are significant in determining pollutant concentrations. Concentration levels can be related to the amount of mixing space below the inversion. Temperature inversions that occur on the summer days are usually 2,000 to 2,500 feet above the valley floor. In winter months, overnight inversions occur 500 to 1,500 feet above the valley floor.

2.2 Air Pollutants of Concern

The air pollutants emitted into the ambient air by stationary and mobile sources are regulated by state and federal laws. These regulated air pollutants are known as “criteria air pollutants” and are categorized into primary and secondary pollutants.

Primary air pollutants are emitted directly from sources. Carbon monoxide (CO), reactive organic gases (ROG), nitrogen oxide (NO_x), sulfur dioxide (SO_2), coarse particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$), and lead are primary air pollutants. Of these, CO, NO_x , SO_2 , PM_{10} , and $PM_{2.5}$ are criteria pollutants. ROG and NO_x are criteria pollutant precursors and form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere. For example, the criteria pollutant ozone (O_3) is formed by a chemical reaction between ROG and NO_x in the presence of sunlight. O_3 and nitrogen dioxide (NO_2) are the principal secondary pollutants. Sources and health effects commonly associated with criteria pollutants are summarized in [Table 1: Air Contaminants and Associated Public Health Concerns](#).

Pollutant	Major Man-Made Sources	Human Health Effects
Particulate Matter (PM_{10} and $PM_{2.5}$)	Power plants, steel mills, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles, and others.	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; asthma; chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility.
Ozone (O_3)	Formed by a chemical reaction between reactive organic gases/volatile organic compounds (ROG or VOC) ¹ and nitrogen oxides (NO_x) in the presence of sunlight. Motor vehicle exhaust industrial emissions, gasoline storage and transport, solvents, paints and landfills.	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing, and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield.
Sulfur Dioxide (SO_2)	A colorless gas formed when fuel containing sulfur is burned and when gasoline is extracted from oil. Examples are petroleum refineries, cement manufacturing, metal processing facilities, locomotives, and ships.	Respiratory irritant. Aggravates lung and heart problems. In the presence of moisture and oxygen, sulfur dioxide converts to sulfuric acid which can damage marble, iron and steel. Damages crops and natural vegetation. Impairs visibility. Precursor to acid rain.

Pollutant	Major Man-Made Sources	Human Health Effects
Carbon Monoxide (CO)	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, affecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.
Nitrogen Dioxide (NO ₂)	A reddish-brown gas formed during fuel combustion for motor vehicles and industrial sources. Sources include motor vehicles, electric utilities, and other sources that burn fuel.	Respiratory irritant; aggravates lung and heart problems. Precursor to O ₃ . Contributes to global warming and nutrient overloading which deteriorates water quality. Causes brown discoloration of the atmosphere.
Notes:		
1. Volatile Organic Compounds (VOCs or Reactive Organic Gases [ROG]) are hydrocarbons/organic gases that are formed solely of hydrogen and carbon. There are several subsets of organic gases including ROGs and VOCs. Both ROGs and VOCs are emitted from the incomplete combustion of hydrocarbons or other carbon-based fuels. The major sources of hydrocarbons are combustion engine exhaust, oil refineries, and oil-fueled power plants; other common sources are petroleum fuels, solvents, dry cleaning solutions, and paint (via evaporation).		
Source: California Air Pollution Control Officers Association, <i>Health Effects</i> , http://www.capcoa.org/health-effects/ , accessed February 16, 2022.		

Toxic Air Contaminants

Toxic air contaminants (TACs) are airborne substances that can cause short-term (acute) or long-term (i.e., chronic, carcinogenic or cancer causing) adverse human health effects (i.e., injury or illness). TACs include both organic and inorganic chemical substances. They may be emitted from a variety of common sources including gasoline stations, automobiles, dry cleaners, industrial operations, and painting operations. The current California list of TACs includes more than 200 compounds, including particulate emissions from diesel-fueled engines.

CARB identified diesel particulate matter (DPM) as a toxic air contaminant. DPM differs from other TACs in that it is not a single substance but rather a complex mixture of hundreds of substances. Diesel exhaust is a complex mixture of particles and gases produced when an engine burns diesel fuel. DPM is a concern because it causes lung cancer; many compounds found in diesel exhaust are carcinogenic. DPM includes the particle-phase constituents in diesel exhaust. The chemical composition and particle sizes of DPM vary between different engine types (heavy-duty, light-duty), engine operating conditions (idle, accelerate, decelerate), fuel formulations (high/low sulfur fuel), and the year of the engine. Some short-term (acute) effects of diesel exhaust include eye, nose, throat, and lung irritation, and diesel exhaust can cause coughs, headaches, light-headedness, and nausea. DPM poses the greatest health risk among the TACs. Almost all diesel exhaust particle mass is 10 microns or less in diameter. Due to their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung.

Ambient Air Quality

CARB monitors ambient air quality at approximately 250 air monitoring stations across the State. These stations usually measure pollutant concentrations ten feet above ground level; therefore, air quality is often referred to in terms of ground-level concentrations. Existing levels of ambient air quality, historical trends, and projections near the Project are documented by measurements made by the San Joaquin Valley Air Pollution Control District (SJVAPCD), the air pollution regulatory agency in the SJVAB that maintains air quality monitoring stations which process ambient air quality measurements.

Pollutants of concern in the SJVAB include O₃, PM₁₀, and PM_{2.5}. The closest air monitoring station to the Project that monitors ambient concentrations of these pollutants is the Bakersfield-Airport Monitoring Station (located approximately 4.4 miles to the northeast). Local air quality data from 2018 to 2020 are provided in [Table 2: Ambient Air Quality Data](#), which lists the monitored maximum concentrations and number of exceedances of state or federal air quality standards for each year.

Table 2: Ambient Air Quality Data			
Criteria Pollutant	2018	2019	2020
Ozone (O₃)¹			
1-hour Maximum Concentration (ppm)	0.111	0.092	0.118
8-hour Maximum Concentration (ppm)	0.098	0.080	0.101
<i>Number of Days Standard Exceeded</i>			
CAAQS 1-hour (>0.09 ppm)	9	0	8
NAAQS 8-hour (>0.070 ppm)	54	19	38
Carbon Monoxide (CO)¹			
1-hour Maximum Concentration (ppm)	1.95	1.25	1.75
<i>Number of Days Standard Exceeded</i>			
NAAQS 1-hour (>35 ppm)	0	0	0
CAAQS 1-hour (>20 ppm)	0	0	0
Nitrogen Dioxide (NO₂)¹			
1-hour Maximum Concentration (ppm)	57.1	64.3	65.5
<i>Number of Days Standard Exceeded</i>			
NAAQS 1-hour (>0.100 ppm)	49	53	53
CAAQS 1-hour (>0.18 ppm)	60	60	70
Particulate Matter Less Than 10 Microns (PM₁₀)²			
National 24-hour Maximum Concentration (µg/m ³)	136.1	116.3	193.8
State 24-hour Maximum Concentration (µg/m ³)	142.0	125.9	196.8
State Annual Average Concentration (CAAQS=20 µg/m ³)	-	-	-
<i>Number of Days Standard Exceeded</i>			
NAAQS 24-hour (>150 µg/m ³)	0	0	1
CAAQS 24-hour (>50 µg/m ³)	13	17	18
Particulate Matter Less Than 2.5 Microns (PM_{2.5})²			
National 24-hour Maximum Concentration (µg/m ³)	98.5	59.1	150.7
State 24-hour Maximum Concentration (µg/m ³)	98.5	59.1	159.7
<i>Number of Days Standard Exceeded</i>			
NAAQS 24-hour (>35 µg/m ³)	36	12	44
NAAQS = National Ambient Air Quality Standards; CAAQS = California Ambient Air Quality Standards; ppm = parts per million; µg/m ³ = micrograms per cubic meter; - = not measured 0 means that data represent none of the high period			
1. Measurements taken at the Bakersfield-Airport Air Monitoring Site at 2000 S Union Avenue, Bakersfield California.			
2. Measurements taken at the Bakersfield-5558 California Avenue Monitoring Site at 5558 California Avenue, Bakersfield California.			
Source: All pollutant measurements are from the CARB Aerometric Data Analysis and Management system database (https://www.arb.ca.gov/adam) for Bakersfield-Airport Air Monitoring Site. No data was available for CO, PM10 or PM 2.5.			

2.3 Sensitive Receptors

Sensitive receptors are more susceptible to the effects of air pollution than is the general population and are in proximity to localized sources of toxics are of particular concern. Land uses considered sensitive receptors include residences, schools, playgrounds, childcare centers, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes. The Project site is primarily surrounded by vacant land and commercial uses. The sensitive land uses nearest to the Project site are the residential uses approximately 330 feet northeast and 730 feet to the northwest and the senior center 850 feet north. Sensitive land uses nearest to the Project are shown in [Table 3: Sensitive Receptors](#).

Receptor Description	Distance and Direction from the Project
Single-family Residences	330 feet northeast
Single-family Residences	730 feet northwest
Senior Center	850 feet north

Source: Google Earth, 2021.

3 REGULATORY SETTING

3.1 Federal

Federal Clean Air Act

Air quality is federally protected by the Federal Clean Air Act (FCAA) and its amendments. Under the FCAA, the United States Environmental Protection Agency (EPA) developed the primary and secondary National Ambient Air Quality Standards (NAAQS) for the criteria air pollutants including O₃, NO₂, CO, SO₂, PM₁₀, PM_{2.5}, and lead. Proposed projects in or near nonattainment areas could be subject to more stringent air-permitting requirements. The FCAA requires each state to prepare a State Implementation Plan to demonstrate how it will attain the NAAQS within the federally imposed deadlines.

The EPA can withhold certain transportation funds from states that fail to comply with the planning requirements of the FCAA. If a state fails to correct these planning deficiencies within two years of Federal notification, the EPA is required to develop a Federal implementation plan for the identified nonattainment area or areas. The provisions of 40 Code of Federal Regulations Parts 51 and 93 apply in all nonattainment and maintenance areas for transportation-related criteria pollutants for which the area is designated nonattainment or has a maintenance plan. The EPA has designated enforcement of air pollution control regulations to the individual states. Applicable federal standards are summarized in [Table 4: State and Federal Ambient Air Quality Standards](#).

3.2 State of California

California Air Resources Board

CARB administers the air quality policy in California. The California Ambient Air Quality Standards (CAAQS) were established in 1969 pursuant to the Mulford-Carrell Act. These standards, included with the NAAQS in [Table 4](#), are generally more stringent and apply to more pollutants than the NAAQS. In addition to the criteria pollutants, CAAQS have been established for visibility reducing particulates, hydrogen sulfide, and sulfates.

The California Clean Air Act (CCAA), which was approved in 1988, requires that each local air district prepare and maintain an Air Quality Management Plan (AQMP) to achieve compliance with CAAQS. These AQMPs also serve as the basis for the preparation of the State Implementation Plan for meeting federal clean air standards for the State of California. Like the EPA, CARB also designates areas within California as either attainment or nonattainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as nonattainment for a pollutant if air quality data shows that a state standard for the pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events such as wildfires, volcanoes, etc. are not considered violations of a state standard, and are not used as a basis for designating areas as nonattainment. The applicable State standards are summarized in [Table 4](#).

Pollutant	Averaging Time	State Standards ¹	Federal Standards ²
Ozone (O ₃) ^{2, 5, 7}	8 Hour	0.070 ppm (137 µg/m ³)	0.070 ppm
	1 Hour	0.09 ppm (180 µg/m ³)	NA
Carbon Monoxide (CO)	8 Hour	9.0 ppm (10 mg/m ³)	9 ppm (10 mg/m ³)
	1 Hour	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)
Nitrogen Dioxide (NO ₂)	1 Hour	0.18 ppm (339 µg/m ³)	0.10 ppm ¹¹
	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)	0.053 ppm (100 µg/m ³)
Sulfur Dioxide (SO ₂) ⁸	24 Hour	0.04 ppm (105 µg/m ³)	0.14 ppm (365 µg/m ³)
	1 Hour	0.25 ppm (655 µg/m ³)	0.075 ppm (196 µg/m ³)
	Annual Arithmetic Mean	NA	0.03 ppm (80 µg/m ³)
Particulate Matter (PM ₁₀) ^{1, 3, 6}	24-Hour	50 µg/m ³	150 µg/m ³
	Annual Arithmetic Mean	20 µg/m ³	NA
Fine Particulate Matter (PM _{2.5}) ^{3, 4, 6, 9}	24-Hour	NA	35 µg/m ³
	Annual Arithmetic Mean	12 µg/m ³	12 µg/m ³
Sulfates (SO ₄₋₂)	24 Hour	25 µg/m ³	NA
Lead (Pb) ^{10, 11}	30-Day Average	1.5 µg/m ³	NA
	Calendar Quarter	NA	1.5 µg/m ³
	Rolling 3-Month Average	NA	0.15 µg/m ³
Hydrogen Sulfide (H ₂ S)	1 Hour	0.03 ppm (42 µg/m ³)	NA
Vinyl Chloride (C ₂ H ₃ Cl) ¹⁰	24 Hour	0.01 ppm (26 µg/m ³)	NA

ppm = parts per million; µg/m³ = micrograms per cubic meter; mg/m³ = milligrams per cubic meter; – = no information available.

¹ California standards for O₃, carbon monoxide (except Lake Tahoe), sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, suspended particulate matter - PM₁₀, and visibility reducing particles are values that are not to be exceeded. The standards for sulfates, Lake Tahoe carbon monoxide, lead, hydrogen sulfide, and vinyl chloride are not to be equaled or exceeded. If the standard is for a 1-hour, 8-hour or 24-hour average (i.e., all standards except for lead and the PM₁₀ annual standard), then some measurements may be excluded. Measurements are excluded that CARB determines would occur less than once per year on the average. The Lake Tahoe carbon monoxide standard is 6.0 ppm, a level one-half the national standard and two-thirds the State standard.

² National standards shown are the "primary standards" designed to protect public health. National standards other than for O₃, particulates and those based on annual averages are not to be exceeded more than once a year. The 1-hour O₃ standard is attained if, during the most recent three-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than one. The 8-hour O₃ standard is attained when the 3-year average of the 4th highest daily concentrations is 0.070 ppm or less. The 24-hour PM₁₀ standard is attained when the 3-year average of the 99th percentile of monitored concentrations is less than 150 µg/m³. The 24-hour PM_{2.5} standard is attained when the 3-year average of 98th percentiles is less than 35 µg/m³.

³ Except for the national particulate standards, annual standards are met if the annual average falls below the standard at every site. The national annual particulate standard for PM₁₀ is met if the 3-year average falls below the standard at every site. The annual PM_{2.5} standard is met if the 3-year average of annual averages spatially-averaged across officially designed clusters of sites falls below the standard. NAAQS are set by the EPA at levels determined to be protective of public health with an adequate margin of safety.

⁴ On October 1, 2015, the national 8-hour O₃ primary and secondary standards were lowered from 0.075 to 0.070 ppm. An area will meet the standard if the fourth-highest maximum daily 8-hour O₃ concentration per year, averaged over three years, is equal to or less than 0.070 ppm. EPA will make recommendations on attainment designations by October 1, 2016, and issue final designations October 1, 2017. Nonattainment areas will have until 2020 to late 2037 to meet the health standard, with attainment dates varying based on the O₃ level in the area.

⁵ The national 1-hour O₃ standard was revoked by the EPA on June 15, 2005.

⁶ In June 2002, CARB established new annual standards for PM_{2.5} and PM₁₀.

⁷ The 8-hour California O₃ standard was approved by the CARB on April 28, 2005 and became effective on May 17, 2006.

⁸ On June 2, 2010, the EPA established a new 1-hour SO₂ standard, effective August 23, 2010, which is based on the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations. The existing 0.030 ppm annual and 0.14 ppm 24-hour SO₂ NAAQS however must continue to be used until one year following EPA initial designations of the new 1-hour SO₂ NAAQS.

⁹ In December 2012, EPA strengthened the annual PM_{2.5} NAAQS from 15.0 to 12.0 µg/m³. In December 2014, the EPA issued final area designations for the 2012 primary annual PM_{2.5} NAAQS. Areas designated "unclassifiable/attainment" must continue to take steps to prevent their air quality from deteriorating to unhealthy levels. The effective date of this standard is April 15, 2015.

¹⁰ CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure below which there are no adverse health effects determined.

¹¹ National lead standards, rolling 3-month average: final rule signed October 15, 2008. Final designations effective December 31, 2011.

Source: San Joaquin Valley Air Pollution Control District, *Ambient Air Quality Standards & Valley Attainment Status*, <https://www.valleyair.org/aqinfo/attainment.htm>, accessed April 11, 2022; California Air Resources Board, *Ambient Air Quality Standards*, May 6, 2016.

3.3 Regional

San Joaquin Valley Air Pollution Control District

The primary role of SJVAPCD is to develop plans and implement control measures in the SJVAB to control air pollution. These controls primarily affect stationary sources such as industry and power plants. Rules and regulations have been developed by SJVAPCD to control air pollution from a wide range of air pollution sources. SJVAPCD also provides uniform procedures for assessing potential air quality impacts of proposed projects and for preparing the air quality section of environmental documents.

Air Quality Planning. The U.S. EPA requires states that have areas that do not meet the National AAQS to prepare and submit air quality plans showing how the National AAQS will be met. If the states cannot show how the National AAQS will be met, then the states must show progress toward meeting the National AAQS. These plans are referred to as the State Implementation Plans (SIP). California's adopted 2007 State Strategy was submitted to the U.S. EPA as a revision to its SIP in November 2007.² More recently, in October 2018, the CARB adopted the 2018 Updates to the California State Implementation Plan.

In addition, the CARB requires regions that do not meet California AAQS for ozone to submit clean air plans (CAPs) that describe measures to attain the standard or show progress toward attainment. To ensure federal CAA compliance, SJVAPCD is currently developing plans for meeting new National AAQS for ozone and PM_{2.5} and the California AAQS for PM₁₀ in the SJVAB (for California CAA compliance)³ The following describes the air plans prepared by the SJVAPCD, which are incorporated by reference per CEQA Guidelines Section 15150.

SJVAPCD published the *Guidance for Assessing and Mitigating Air Quality Impacts* (February 19, 2015) advisory document to provide CEQA lead agencies, consultants, and project applicants with uniform procedures for addressing air quality in environmental documents. This document contains qualitative and quantitative significance thresholds for assessing impacts from construction and operations activities.

1-Hour Ozone Plan. Although U.S. EPA revoked its 1979 1-hour ozone standard in June 2005, many planning requirements remain in place, and SJVAPCD must still attain this standard before it can rescind CAA Section 185 fees. The SJVAPCD's most recent 1-hour ozone plan, the 2013 Plan for the Revoked 1-hour Ozone Standard, demonstrated attainment of the 1-hour ozone standard by 2017. However, on July 18, 2016, the U.S. EPA published in the Federal Register a final action determining that SJVAB has attained the 1-hour ozone NAAQS based on the 2012 to 2014 three-year period allowing nonattainment penalties to be lifted under federal Clean Air Act section 179b.⁴

8-Hour Ozone Plan. The SJVAPCD's Governing Board adopted the 2007 Ozone Plan on April 30, 2007. This far-reaching plan, with innovative measures and a "dual path" strategy, assures expeditious attainment of the federal 8-hour ozone standard as set by U.S. EPA in 1997. The plan projects that the valley will achieve the 8-hour ozone standard for all areas of the SJVAB no later than 2023. The CARB approved the plan on June 14, 2007. The U.S. EPA approved the 2007 Ozone Plan effective April 30, 2012. SJVAPCD

² The plan was adopted by CARB on September 27, 2007.

³ San Joaquin Valley Air Pollution Control District, *2012 PM_{2.5} Plan*, December 2020.

⁴ San Joaquin Valley Air Pollution Control District, Final Draft, *Guidance for Assessing and Mitigating Air Quality Impacts*, 2015.

adopted the 2016 Ozone Plan to address the federal 2008 8-hour ozone standard, which must be attained by end of 2031.^{5,6}

The Clean Air Act (CAA) mandates the District to develop and submit a new attainment plan for the revised federal 8-hour ozone standard to the U.S. Environmental Protection Agency (EPA) by August 2022 (2022 Ozone Plan). In October 2015, the EPA strengthened the standards for ground-level ozone from 75 ppb to 70 ppb. The San Joaquin Valley Air Basin is classified as an “extreme” nonattainment area for this revised standard with an attainment deadline of 2037. To meet the 70-ppb standard, significant reductions in ozone precursor emissions (NO_x) will be needed. The 2022 Ozone Plan will include efforts to reduce emissions from passenger vehicles, heavy duty trucks, locomotives, and other mobile sources since over 85 percent of remaining NO_x emissions in the Valley come from mobile sources under state and federal jurisdiction.⁷

The 2022 Ozone Plan will build on existing air quality strategies, and the comprehensive NO_x emission reduction strategies included in existing ozone and PM_{2.5} attainment plans will contribute to meeting the new federal ozone standard.

PM₁₀ Plan. Based on PM₁₀ measurements from 2003 to 2006, the U.S. EPA found that the SJVAB has reached federal PM₁₀ standards. On September 21, 2007, the SJVAPCD’s Governing Board adopted the 2007 PM₁₀ Maintenance Plan and Request for Redesignation. This plan demonstrates that the valley will continue to meet the PM₁₀ standard. U.S. EPA approved the document and on September 25, 2008, the SJVAB was redesignated to attainment/maintenance.

PM_{2.5} Plan. The SJVAPCD adopted the 2018 Plan for the 1997, 2006, and 2012 PM_{2.5} Standards on November 15, 2018.⁸ This plan addresses the U.S. EPA federal 1997 annual PM_{2.5} standard of 15 µg/m³ and 24-hour PM_{2.5} standard of 65 µg/m³; the 2006 24-hour PM_{2.5} standard of 35 µg/m³; and the 2012 annual PM_{2.5} standard of 12 µg/m³. This plan demonstrates attainment of the federal PM_{2.5} standards as expeditiously as practicable (SJVAPCD, 2020).

All the above-referenced plans include measures (i.e., federal, state, and local) that would be implemented through rule making or program funding to reduce air pollutant emissions in the SJVAB. Transportation control measures are part of these plans. The state and federal attainment status designations for the SJVAB are summarized in [Table 5: San Joaquin Valley Air Basin Attainment Status](#). The SJVAB is currently designated as a nonattainment area with respect to the State O₃, PM₁₀, and PM_{2.5} standards, as well as the national 8-hour O₃ and PM_{2.5} standards. The SJVAB is designated as attainment or unclassified for the remaining state and federal standards.

⁵ San Joaquin Valley Air Pollution Control District, *Ozone Plans*, http://www.valleyair.org/Air_Quality_Plans/Ozone_Plans.htm, accessed April 11, 2022.

⁶ San Joaquin Valley Air Pollution Control District, *2016 Plan for the 2008 8-Hour Ozone Standard*, http://www.valleyair.org/Air_Quality_Plans/Ozone-Plan-2016.htm, accessed April 11, 2022.

⁷ San Joaquin Valley Air Pollution Control District, *2022 Ozone Plan for the San Joaquin Valley*, <https://ww2.valleyair.org/plans/2022-ozone-plan-for-the-san-joaquin-valley/>, accessed April 11, 2022.

⁸ San Joaquin Valley Air Pollution Control District, *Particulate Matter Plans*, http://valleyair.org/Air_Quality_Plans/PM_Plans.htm, accessed April 11, 2022.

Pollutant	State	Federal
Ozone (O ₃) (1 Hour Standard)	Non-Attainment/Severe	No Federal Standard ¹
Ozone (O ₃) (8 Hour Standard)	Non-Attainment	Non-Attainment/Extreme ²
Particulate Matter (PM _{2.5})	Non-Attainment	Non-Attainment ³
Particulate Matter (PM ₁₀)	Non-Attainment	Attainment ⁴
Carbon Monoxide (CO)	Attainment/Unclassified	Attainment/Unclassified
Nitrogen Dioxide (NO ₂)	Attainment	Attainment/Unclassified
Sulfur Dioxide (SO ₂)	Attainment	Attainment/Unclassified
Lead (Pb)	Attainment	No Designation/Classification
Sulfates (SO ₄₋₂)	Attainment	–
Hydrogen Sulfide (H ₂ S)	Unclassified	–

Notes:

- Effective June 15, 2005, the U.S. Environmental Protection Agency (EPA) revoked the Federal 1- hour ozone standard, including associated designations and classifications. EPA had previously classified the San Joaquin Valley Air Basin (SJVAB) as extreme nonattainment for this standard. EPA approved the 2004 Extreme Ozone Attainment Demonstration Plan on March 8, 2010 (effective April 7, 2010). Many applicable requirements for extreme 1-hour ozone nonattainment areas continue to apply to the SJVAB.
- Though the Valley was initially classified as serious nonattainment for the 1997 8-hour ozone standard, EPA approved Valley reclassification to extreme nonattainment in the Federal Register on May 5, 2010 (effective June 4, 2010).
- On September 25, 2008, EPA re-designated the San Joaquin Valley to attainment for the PM₁₀ National Ambient Air Quality Standard (NAAQS) and approved the PM₁₀ Maintenance Plan.
- The Valley is designated nonattainment for the 1997 PM_{2.5} NAAQS. EPA designated the Valley as nonattainment for the 2006 PM_{2.5} NAAQS on November 13, 2009 (effective December 14, 2009).

Source: San Joaquin Valley Air Pollution Control District, *Ambient Air Quality Standards & Valley Attainment Status*, <https://www.valleyair.org/aqinfo/attainment.htm>, accessed April 11, 2022; United States Environmental Protection Agency, *Nonattainment Areas for Criteria Pollutants (Green Book)*, 2020.

SJVAPCD Rules and Regulations

Under federal and state law, SJVAPCD is under a legal obligation to enforce air pollution regulations. These regulations are primarily meant to ensure that the surrounding (or ambient) air meets federal and state air quality standards. The following is a list of SJVAPCD rules that are required of construction and operational activities associated with the Project:

- **Rule 4002 (National Emission Standards for Hazardous Air Pollutants)** - This rule requires a thorough inspection for asbestos to be conducted before any regulated facility is demolished or renovated.
- **Rule 4102 (Nuisance)** – The purpose of this rule is to protect the health and safety of the public and applies to any source operation that emits or may emit air contaminants or other materials. This rule is enforced on a complaint basis.
- **Rule 4309 (Dryers, Dehydrators, and Ovens)** - The purpose of this rule is to limit emissions of oxides of nitrogen (NO_x) and carbon monoxide (CO) from dryers, dehydrators, and ovens. This rule applies to -any dryer, dehydrator, or oven that is fired on gaseous fuel, liquid fuel, or is fired on gaseous and liquid fuel sequentially, and the total rated heat input for the unit is 5.0 million British thermal units per hour (5.0 MMBtu/hr.) or greater.
- **Rule 4601 (Architectural Coatings)** – The purpose of this rule is to limit Volatile Organic Compounds (VOC) emissions from architectural coatings. Emissions are reduced by limits on VOC content and providing requirements on coatings storage, cleanup, and labeling. Only compliant components are available for purchase in the San Joaquin Valley

- **Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations)** – The purpose of this rule is to limit VOC emissions from asphalt paving and maintenance operations. If asphalt paving will be used, then the paving operations will be subject to Rule 4641. This regulation is enforced on the asphalt provider.
- **Rule 4692 (Commercial Charbroiling)** – The purpose of this rule is to limit VOC and PM₁₀ emissions from commercial charbroiling. This rule applies to char broilers used to cook meat at commercial cooking operations.
- **Rule 9510 (Indirect Source Review)** - This rule reduces the impact of NO_x and PM₁₀ emissions from growth within the Air Basin. The rule places application and emission reduction requirements on development projects meeting applicability criteria to reduce emissions through on-site mitigation, off-site District-administered projects, or a combination of the two.
- **Regulation VIII (Fugitive PM₁₀ Prohibitions)** - Rules 8011–8081 are designed to reduce PM₁₀ emissions (predominantly dust/dirt) generated by human activity, including construction and demolition activities, road construction, bulk materials storage, paved and unpaved roads, carryout and track out, etc. All development projects that involve soil disturbance are subject to at least one provision of the Regulation VIII series of rules.

3.4 Local

City of Bakersfield General Plan

The *Metropolitan Bakersfield General Plan* (December 2002) (General Plan) includes objectives and policies within its that pertain directly to air quality. The Land Use and Circulation Elements of the General Plan provide concepts and policies which assist in reducing the amount of pollution emission from mobile sources. These policies aim to reduce vehicle trips, vehicle miles traveled (VMT), and pollutant emissions per vehicle mile to reduce the emission of automobile related air pollutants on both a regional and localized basis. The policies that directly address reducing and avoiding natural resources and air quality impacts include the following:

Circulation Element

Goal 4: Reduce traffic congestion and parking requirements and improve air quality through improved transportation services.

Conservation Element

Goal 1: Promote air quality that is compatible with health, wellbeing, and enjoyment of life by controlling point sources and minimizing vehicular trips to reduce air pollutants.

Goal 2: Continue working toward attainment of federal, state, and local standards as enforced by the SJVUACD.

Goal 3: Reduce the amount of vehicular emissions in the planning area.

Goal 4: Reduce air pollution associated with agriculture activities.

Policy 1: Comply with and promote SJVUAPCD control measures regarding Reactive

- Organic Gases (ROG). Such measures are focused on: (a) steam driven well vents, (b) Pseudo-cyclic wells, (c) natural gas processing plant fugitives, (d) heavy oil test stations, (e) light oil production fugitives, (f) refinery pumps and compressors, and (g) vehicle inspection and maintenance (I-1).
- Policy 2: Encourage land uses and land use practices which do not contribute significantly to air quality degradation (I-1).
- Policy 3: Require dust abatement measures during significant grading and construction operations (I-1).
- Policy 4: Consider air pollution impacts when evaluating discretionary permits for land use proposals. Considerations should include (I-1):
- a) Alternatives access routes to reduce traffic congestion.
 - b) Development phasing to match road capacities.
 - c) Buffers including increase vegetation to increase emissions dispersion and reduce impacts of gaseous or particulate matter on sensitive uses.
- Policy 5: Consider the location of sensitive receptors such as schools, hospitals, and housing developments when locating industrial uses to minimize the impact of industrial sources of air pollution (I-1).
- Policy 6: Participate in alternative fuel programs (I-2).
- Policy 7: Participate in regional air quality studies and comprehensive programs for air pollution reduction (I-3).
- Policy 8: Promote and assist in the development and implementation of the San Joaquin Valleywide Air Quality Study (I-3).
- Policy 9: Promote public education regarding air quality issues and alternative transportation (I-4).
- Policy 10: Implement the Transportation System Management Program (July 1984) for Metropolitan Bakersfield to improve traffic flow, reduce vehicle trips, and increase street capacity (I-1).
- Policy 11: Improve the capacity of the exiting road system through improved signalization, more right turn lanes and traffic control systems (I-1).
- Policy 12: Encourage the use of mass transit, carpooling and other transportation options to reduce vehicle miles traveled (I-4).
- Policy 13: Consider establishing priority parking areas for carpoolers in projects with relatively large numbers of employees to reduce VMT and improve air quality (I_4).
- Policy 14: Establish park and ride facilities to encourage carpooling and the use of mass transit (I-1).
- Policy 15: Promote the use of bicycles by providing attractive bicycle paths and requiring provisions of storage facilities in commercial and industrial projects (I-1).

- Policy 16: Cooperate with Golden Empire Transit and Kern Regional Transit to provide a comprehensive mass transit system for Bakersfield; require large-scale new development to provide related improvements, such as bus stop shelters and turnouts (I-1).
- Policy 17: Continue to participate with the vehicle smog-check and maintenance programs (I-1).
- Policy 18: Encourage walking for short distance trips through the creation of pedestrian friendly sidewalks and street crossings (I-1).
- Policy 19: Promote a pattern of land uses which locates residential uses in close proximity to employment and commercial services to minimize vehicular travel (I-1).
- Policy 20: Provide the opportunity for the development of residential units in concert with commercial uses (I-1).
- Policy 21: Disperse urban service centers (libraries, post offices, social services, etc.) to minimize vehicle trips and trip miles traveled and concomitant air pollutants (I-1).
- Policy 22: Require the provision of secure, convenient bike storage racks at shopping centers, office buildings, and other places of employment in the Bakersfield Metropolitan area (I-1).
- Policy 23: Encourage the provision of shower and locker facilities by employers, for employees who bicycle or jog to work (I-1).
- Policy 24: Encourage employers to implement programs for staggered work hours, compressed work weeks, or other measures which relieve vehicle congestion during commute periods and reduce total work trips (I-1).
- Policy 25: Require design of parking structures and ramps to provide adequate off-street storage for entering vehicles to minimize on-street congestion and avoid internal back-up and idling of vehicles (I-1).
- Policy 26: Consider restriction or elimination of on-street parking for the purpose of providing increased road or intersection capacity during peak traffic hours (I-1).
- Policy 27: Local governments should work with local transit authorities to increase the attractiveness of passenger staging areas through the provision of waiting shelters, landscaping, and drinking fountains (I-1).
- Policy 28: Encourage the use of “teleconferencing” and other state-of-the-art technology as a means of reducing daily business-related traffic (I-4).
- Policy 29: Encourage the use of alternative fuel and low or zero emission vehicles (I-5, I-6).
- Policy 30: Encourage local officials to advocate safe incentives for biomass plants to divert agricultural waste and reduce agricultural burns (I-1).
- Policy 31: Encourage agricultural burn alternatives (I-1).

City of Bakersfield Municipal Code

Chapter 15.05 Section 104 of the City of Bakersfield Municipal Code (BMC) notes that dust abatement shall comply with the current standards as set forth by the SJVAPCD.

4 SIGNIFICANCE CRITERIA AND METHODOLOGY

4.1 Air Quality Thresholds

Based upon the criteria derived from Appendix G of the CEQA Guidelines, a Project normally would have a significant effect on the environment if it would:

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

SJVAPCD Thresholds

The significance criteria established by SJVAPCD may be relied upon to make the above determinations. According to the SJVAPCD, an air quality impact is considered significant if the Project would violate any ambient air quality standard, contribute substantially to an existing or projected air quality violation, or expose sensitive receptors to substantial pollutant concentrations. The SJVAPCD has established thresholds of significance for air quality during construction and operational activities of land use development projects, as shown in [Table 6: San Joaquin Valley Air Pollution Control District Emissions Thresholds](#).

Criteria Air Pollutants and Precursors	Maximum Tons per Year	
	Construction-Related	Operational-Related
Reactive Organic Gases (ROG)	10	10
Carbon Monoxide (CO)	100	100
Nitrogen Oxides (NO _x)	10	10
Sulfur Oxides (SO _x)	27	27
Coarse Particulates (PM ₁₀)	15	15
Fine Particulates (PM _{2.5})	15	15

Source: San Joaquin Valley Air Pollution Control District, *Air Quality Thresholds of Significance – Criteria Pollutants*, 2015.

Carbon Monoxide Hotspots

The SJVAPCD has also established screening criteria to determine if a project would result in a CO hotspot at affected roadway intersections (SJVAPCD, 2015). If neither of the following criteria are met at any of the intersections affected by the project, the project would result in no potential to create a violation of the CO standard:

- A traffic study for the project indicates that the level of service (LOS) on one or more streets or at one or more intersections in the project vicinity will be reduced to LOS E or LOS F.
- A traffic study indicates that the project will substantially worsen an already existing LOS F on one or more streets or at more or more intersections in the project vicinity.

The SJVAPCD recommends that an Ambient Air Quality Analysis (AAQA) be performed when on-site emissions of any criteria pollutant would equal or exceed 100 pounds per day. If emissions of one criteria pollutant exceeds the threshold, then all criteria pollutants are to be modeled. In the AAQA, air pollutant concentrations are determined by conducting air dispersion modeling, adding the resulting concentrations to ambient background levels, and comparing to the applicable ambient air quality standard. A project would be considered to have a significant impact if its emissions are predicted to cause or contribute to a violation of an ambient air quality standard by exceeding any CAAQS or NAAQS. If an exceedance of the CAAQS or NAAQS is predicted, modeled concentrations may be compared to significant impact levels (SILs) to assess whether a project's emissions would contribute significantly to an existing violation of the CAAQS or NAAQS.

4.2 Methodology

This air quality impact analysis considers construction and operational impacts associated with the Project. Where criteria air pollutant quantification was required, emissions were modeled using the California Emissions Estimator Model (CalEEMod). CalEEMod is a Statewide land use emissions computer model designed to quantify potential criteria pollutant emissions associated with both construction and operations from a variety of land use projects. Air quality impacts were assessed according to methodologies recommended by CARB and the SJVAPCD.

Construction equipment, trucks, worker vehicles, and ground-disturbing activities associated with Project construction would generate emissions of criteria air pollutants and precursors. Daily regional construction emissions are estimated by assuming construction occurs at the earliest feasible date (i.e., a conservative estimate of construction activities) and applying off-road, fugitive dust, and on-road emissions factors in CalEEMod.

Project operations would result in emissions of area sources (consumer products), energy sources (natural gas usage), and mobile sources (motor vehicles from Project generated vehicle trips). Project-generated increases in operational emissions would be predominantly associated with motor vehicle use. The increase of traffic over existing conditions as a result of the Project was obtained from *Traffic Impact Study Scoping Agreement for the Proposed U-Haul Moving and Storage Development in the City of Bakersfield* (February 23, 2022) (Traffic Scoping Agreement). Project trip generation is based on the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th edition, Mini-Warehouse Land Use Category (LU 151). Other operational emissions from area, energy, and stationary sources were quantified in CalEEMod based on land use activity data.

As discussed above, the SJVAPCD provides significance thresholds for emissions associated with proposed Project construction and operations. The proposed Project's construction and operational emissions are compared to the daily criteria pollutant emissions significance thresholds to determine the significance of a project's impact on regional air quality.

5 POTENTIAL IMPACTS AND MITIGATION

5.1 Air Quality Analysis

Threshold 5.1 Would the Project conflict with or obstruct implementation of the applicable air quality plan?

As part of its enforcement responsibilities, the EPA requires each state with nonattainment areas to prepare and submit a State Implementation Plan that demonstrates the means to attain the federal standards. The State Implementation Plan must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution in nonattainment areas, using a combination of performance standards and market-based programs. Similarly, under State law, the CCAA requires an air quality attainment plan to be prepared for areas designated as nonattainment regarding the state and federal ambient air quality standards. Air quality attainment plans outline emissions limits and control measures to achieve and maintain these standards by the earliest practical date.

The Project is located within the San Joaquin Air Basin (SJVAB), which is under the jurisdiction of the SJVAPCD. The SJVAPCD is required, pursuant to the FCAA, to reduce emissions of criteria pollutants for which the SJVAB is in nonattainment. The SJVAPCD has prepared several air quality attainment plans to achieve ozone and particulate matter standards, the most recent of which include the *2020 Reasonably Available Control Technology (RACT) Demonstration for the 2015 8-Hour Ozone Standard*, *2013 Plan for the Revoked 1-Hour Ozone Standard*, *2007 PM₁₀ Maintenance Plan and Request for Redesignation*, *2012 PM_{2.5} Plan*, and *2015 Plan for the 1997 PM_{2.5} Standard*. The Air Basin is in attainment for CO, SO₂, and lead, therefore there are no air quality plans for those pollutants.

The SJVAPCD has determined that projects that generate emissions below the thresholds of significance for criteria pollutants would not conflict or obstruct implementation of the applicable SJVAPCD air quality plans.

The Air Quality Plans (AQPs) contain control measures, which are enforceable requirements through the adoption of rules and regulations. SJVAPCD Rule 9510 is a control measure in the 2006 PM₁₀ Plan and the 2008 8-Hour Ozone Standard, that requires NOX and PM₁₀ emission reductions. Regulation VIII is a control measure that is one of the main strategies from the 2006 PM₁₀ Plan for reducing the PM₁₀ emissions that are part of fugitive dust.

Other control measures that apply to the Project are Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operation), that requires reductions in VOC emissions during paving and Rule 4601 (Architectural Coatings) that limits the VOC content of all types of paints and coatings.

The Project would comply with all applicable SJVAPCD rules and regulations. Therefore, the Project complies with this criterion and would not conflict with or obstruct implementation of the AQPs. Additionally, as discussed in Threshold 5.2 below, the Project would not exceed the SJVAPCD's annual construction standards and net emissions would not exceed operational standards, thus would not conflict with, or obstruct implementation of the applicable SJVAPCD AQPs. Therefore, the proposed Project would have a less than significant impact in this regard.

Operational emissions are typically associated with mobile sources (i.e., motor vehicle use) and area sources (such as the use of landscape maintenance equipment, hearths, consumer products, and architectural coatings). During the operational phase, the Project would result in a net increase in emissions; however, as discussed in Threshold 5.2 below, the increase in emissions would not exceed any operational significance threshold or violate any SJVAPCD rule or regulation. Therefore, operation and maintenance of the Project would not conflict with or obstruct implementation of the SJVAPCD's air quality plans, and the associated impact would be less than significant.

Mitigation Measures: No mitigation is required.

Level of Significance: Less than significant impact.

Threshold 5.2 Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable state or federal ambient air quality standard?

Construction Emissions

Construction associated with the Project would generate short-term emissions of criteria air pollutants. The criteria pollutants of primary concern within the Project area include O₃-precursor pollutants (i.e., ROG and NO_x) and PM₁₀ and PM_{2.5}. Construction-generated emissions are short term and of temporary duration, lasting only as long as construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the SJVAPCD's thresholds of significance.

Construction results in the temporary generation of emissions resulting from demolition, site grading, building construction, paving, motor vehicle exhaust associated with construction equipment and worker trips, and the movement of construction equipment, especially on unpaved surfaces. Emissions of airborne particulate matter are largely dependent on the amount of ground disturbance associated with site preparation activities as well as weather conditions and the appropriate application of water. The duration of construction activities associated with the Project is estimated to last approximately eight months. Construction-generated emissions associated with the Project were calculated using the CARB-approved CalEEMod computer program, which is designed to model emissions for land use development projects, based on typical construction requirements. See [Appendix A: Air Quality Modeling Data](#) for more information regarding the construction assumptions used in this analysis. Predicted maximum annual construction-generated emissions for the Project are summarized in [Table 7: Annual Construction-Related Emissions](#).

Construction Year	Tons per Year					
	Reactive Organic Gases (ROG)	Nitrogen Oxide (NO _x)	Carbon Monoxide (CO)	Sulfur Dioxide (SO ₂)	Coarse Particulate Matter (PM ₁₀)	Fine Particulate Matter (PM _{2.5})
2023	1.71	1.65	1.89	0.00	0.31	0.14
<i>SJVAPCD Threshold</i>	<i>10</i>	<i>10</i>	<i>100</i>	<i>27</i>	<i>15</i>	<i>15</i>
Exceed SJVAPCD Threshold?	No	No	No	No	No	No
Notes: SJVAPCD Regulation VIII Fugitive Dust applied. No mitigation was applied to construction equipment. Annual regional construction emissions are estimated by assuming construction occurs at the earliest feasible date (i.e., a conservative estimate of construction activities).						
Source: CalEEMod version 2020.4.0. Refer to Appendix A for model outputs.						

Fugitive dust emissions may have a substantial, temporary impact on local air quality. In addition, fugitive dust may be a nuisance to those living and working in the Project vicinity. Uncontrolled dust from construction can become a nuisance and potential health hazard to those living and working nearby. SJVAPCD Rule 8021 (limiting fugitive dust emissions from construction, demolition, excavation, extraction, and other earthmoving activities), is applicable to the Project and were applied in CalEEMod to minimize fugitive dust emissions. While impacts would be considered less than significant, the Project would be subject to SJVAPCD Rules for reducing fugitive dust, described in the Regulatory Framework subsection above. As described above, Rule 4601 provides specifications on painting practices and regulates the ROG content of paint. As required by law, all architectural coatings for the Project structures would comply with SJVAPCD Rule 4601. [Table 7](#) shows that all criteria pollutant emissions associated with construction of the Project would remain below their respective thresholds.

In addition to the annual significance thresholds, the SJVAPCD also recommends the use of daily emissions thresholds for the evaluation of project impacts on localized ambient air quality. The SJVAPCD recommends that an AAQA be performed for all criteria pollutants when emissions of any criteria pollutant resulting from project construction or operational activities exceed the 100 pounds per day screening level, after compliance with Rule 9510 requirements and implementation of all enforceable mitigation measures. Predicted maximum annual construction-generated emissions for the Project are summarized in [Table 8: Daily Construction-Related Emissions](#).

Table 8: Daily Construction-Related Emissions						
Construction Year	Pounds per Day					
	Reactive Organic Gases (ROG)	Nitrogen Oxides (NO _x)	Carbon Monoxide (CO)	Sulfur Dioxide (SO ₂)	Coarse Particulate Matter (PM ₁₀)	Fine Particulate Matter (PM _{2.5})
Construction 2023	44.02	27.56	28.12	0.07	8.69	4.95
<i>AAQA Threshold</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>
Exceed AAQA Threshold?	No	No	No	No	No	No
Notes: SJVAPCD Regulation VIII Fugitive Dust applied. No mitigation was applied to construction equipment. Annual regional construction emissions are estimated by assuming construction occurs at the earliest feasible date (i.e., a conservative estimate of construction activities).						
Source: CalEEMod version 2020.4.0. Refer to Appendix A for model outputs.						

As shown in [Table 8](#), maximum daily on-site construction emissions are below the SJVAPCD's localized screening threshold of 100 pounds per day. Therefore, the Project would result in a less than significant impact in this regard.

Operational Emissions

Project-generated emissions would be primarily associated with motor vehicle use and area sources, such as the use of landscape maintenance equipment and architectural coatings. [Table 9: Annual Operational Emissions](#) presents the maximum annual operational emissions in tons per year with a comparison to the SJVAPCD significance thresholds. [Table 10: Daily Operational Emissions](#) presents the maximum daily operational emissions in pounds per day with a comparison to the AAQA screening thresholds.

Source	Tons per Year				
	Reactive Organic Gases (ROG)	Nitrogen Oxides (NO _x)	Carbon Monoxide (CO)	Coarse Particulate Matter (PM ₁₀)	Fine Particulate Matter (PM _{2.5})
Area Source Emissions	0.98	0.00	0.00	0.00	0.00
Energy Emissions	0.02	0.18	0.15	0.01	0.01
Mobile Emissions	0.16	0.33	1.56	0.33	0.09
Total Emissions	1.16	0.51	1.71	0.34	0.10
<i>SJVAPCD Threshold</i>	<i>10</i>	<i>10</i>	<i>100</i>	<i>15</i>	<i>15</i>
Exceeds Threshold?	No	No	No	No	No

Source: CalEEMod version 2020.4.0. Refer to [Appendix A](#) for model outputs.

Source	Pounds per Day				
	Reactive Organic Gases (ROG)	Nitrogen Oxides (NO _x)	Carbon Monoxide (CO)	Coarse Particulate Matter (PM ₁₀)	Fine Particulate Matter (PM _{2.5})
Area Source Emissions	5.34	0.00	0.02	0.00	0.00
Energy Emissions	0.11	0.99	0.83	0.08	0.08
Mobile Emissions	1.10	1.89	9.27	1.87	0.51
Total Emissions	6.55	2.88	10.12	1.95	0.59
<i>SJVAPCD Threshold</i>	<i>10</i>	<i>10</i>	<i>100</i>	<i>15</i>	<i>15</i>
Exceeds Threshold?	No	No	No	No	No

Source: CalEEMod version 2020.4.0. Refer to [Appendix A](#) for model outputs.

Operational emissions from the Project would be associated with area sources, energy sources, mobile sources (i.e., motor vehicle use), and off-road emissions. Emissions from these categories are discussed below.

- **Area Source Emissions.** Area source emissions would be generated due to on-site equipment, architectural coating, and landscaping that were previously not present on the site.
- **Energy Source Emissions.** Energy source emissions would be generated due to electricity and natural gas usage associated with the Project. Primary uses of electricity and natural gas by the Project would be for miscellaneous warehouse equipment, space heating and cooling, water heating, ventilation, lighting, appliances, and electronics.
- **Mobile Source.** Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions. Depending upon the pollutant being discussed, the potential air quality impact may be of either regional or local concern. For example, ROG, NO_x, PM₁₀, and PM_{2.5} are all pollutants of regional concern. NO_x and ROG react with sunlight to form O₃, known as photochemical smog. Additionally, wind currents readily transport PM₁₀ and PM_{2.5}. However, CO tends to be a localized pollutant, dispersing rapidly at the source.

Project-generated vehicle emissions are based on the Project's daily trip generation data obtained from the Traffic Scoping Agreement and was incorporated into CalEEMod as recommended by the SJVAPCD. According to the Traffic Scoping Agreement, the Project would generate approximately 298 daily trips.

As shown in [Table 9](#) and [Table 10](#), Project emissions would not exceed SJVAPCD thresholds or the AAQA screening thresholds for any criteria air pollutants. Therefore, long-term operations emissions would result in a less than significant impact.

Cumulative Construction Emissions

The SJVAB is designated nonattainment for O₃, PM₁₀, and PM_{2.5} for State standards and nonattainment for O₃ and PM_{2.5} for Federal standards. In accordance with CEQA Guidelines Section 15064, subdivision (h)(3), a lead agency may determine that a Project's incremental contribution to a cumulative effect is not cumulatively considerable if the Project complies with the requirements in a previously approved plan or mitigation program.

The *2007 8-Hour Ozone Plan* contains measures to achieve reductions in emissions of ozone precursors and sets plans towards attainment of ambient ozone standards by 2023. The *2012 PM_{2.5} Plan* and the *2015 PM_{2.5} Plan* for the 1997 PM_{2.5} Standard require fewer NO_x reductions to attain the PM_{2.5} standard than the Ozone Plan, so the Ozone Plan is considered the applicable plan for reductions of the ozone precursors NO_x and ROG. The *2012 PM_{2.5} Plan* requires reductions in directly emitted PM_{2.5} from combustion sources, such as diesel engines and fireplaces, and from fugitive dust to attain the ambient standard and is the applicable plan for PM_{2.5} emissions. Reductions in NO_x required for ozone attainment are also sufficient for PM_{2.5} attainment. As discussed above, the Project is consistent with all applicable control measures in the air quality attainment plans.

The Project would comply with any SJVAPCD rules and regulations that may pertain to implementation of the AQPs. Therefore, impacts would be less than significant with regard to compliance with applicable rules and regulations. This Project does not exceed SJVAPCD thresholds and will reduce its cumulative impact through compliance with Rule 9510; therefore, the proposed Project is considered less than significant for this criterion.

Cumulative Operational Impacts

The SJVAPCD has not established separate significance thresholds for cumulative operational emissions. The nature of air emissions is largely a cumulative impact. As a result, no single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards. Instead, individual project emissions contribute to existing cumulatively significant adverse air quality impacts. The SJVAPCD developed the operational thresholds of significance based on the level above which individual project emissions would result in a cumulatively considerable contribution to the SJVAB's existing air quality conditions. Therefore, a project that exceeds the SJVAPCD operational thresholds would also be a cumulatively considerable contribution to a significant cumulative impact.

As shown in [Table 9](#) and [Table 10](#), Project operational emissions for the Project would not exceed SJVAPCD thresholds and the AAQA screening thresholds. As a result, operational emissions associated with the Project would not result in a cumulatively considerable contribution to significant cumulative air quality impacts. Additionally, adherence to SJVAPCD rules and regulations would alleviate potential impacts related to cumulative conditions on a project-by-project basis. Therefore, operational emissions associated with the Project would not contribute a cumulatively considerable net increase of any nonattainment criteria pollutant.

Mitigation Measures: No mitigation is required.

Level of Significance: Less than significant impact.

Threshold 5.3 Would the Project expose sensitive receptors to substantial pollutant concentrations?

Sensitive receptors are those individuals within the population that have an increased sensitivity to air pollution or environmental contaminants. Sensitive receptors include children, the elderly, and those with pre-existing serious health problems affected by air quality, and sensitive receptor locations include schools, parks and playgrounds, day care center, nursing homes, hospitals, and residences. The closest sensitive receptors are the residential uses approximately 330 feet northeast and 730 feet to the northwest, and the senior center 850 feet north.

Short-Term Construction Fugitive Dust Emissions

The construction phase of the Project would be temporary and short-term, and the implementation of all State, Federal, and SJVAPCD requirements would greatly reduce pollution concentrations generated during construction activities. As shown in [Table 7](#) and [Table 8](#), the Project's construction-related criteria pollutant emissions would not exceed the applicable thresholds. The proposed Project would be required to comply with all SJVAPCD rules and regulations with regard to fugitive dust emissions (e.g., Rule VIII, Fugitive PM₁₀ Prohibitions) and would be consistent with SJVAPCD guidance on this topic. Impacts to sensitive receptors during construction would be negligible and this is a less than significant impact.

Construction-Related Diesel Particulate Matter

Construction of the Project would result in the generation of DPM emissions from the use of required off-road diesel equipment required. The amount to which the receptors are exposed (a function of concentration and duration of exposure) is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). Health-related risks associated with diesel-exhaust emissions are primarily linked to long-term exposure and the associated risk of contracting cancer.

The use of diesel-powered construction equipment would be temporary and episodic. The duration of exposure would be short and exhaust from construction equipment dissipates rapidly. Current models and methodologies for conducting health risk assessments are associated with longer-term exposure periods of 9, 30, and 70 years, which do not correlate well with the temporary and highly variable nature of construction activities. The California Office of Environmental Health Hazard Assessment (OEHHA) has not identified short-term health effects from DPM. Construction is temporary and would be transient throughout the site (i.e., move from location to location) and would not generate emissions in a fixed location for extended periods of time which would limit the exposure of any proximate individual sensitive receptor to TACs.

Additionally, construction is subject to and would comply with California regulations (e.g., California Code of Regulations, Title 13, Sections 2485 and 2449), which reduce diesel PM and criteria pollutant emissions from in-use off-road diesel-fueled vehicles and limit the idling of heavy-duty construction equipment to no more than five minutes. These regulations would further reduce nearby sensitive receptors' exposure to temporary and variable DPM emissions. Given the temporary and intermittent nature of construction activities likely to occur within specific locations in the Project site (i.e., construction is not likely to occur

in any one location for an extended time), the dose of DPM of any one receptor is exposed to would be limited.

Therefore, considering the relatively short duration of DPM-emitting construction activity at any one location, and the highly dispersive properties of DPM, sensitive receptors would not be exposed to substantial concentrations of construction-related TAC emissions. Impacts would be less than significant.

Operational Toxic Air Contaminants

The proposed Project does not include a land use that has the potential to significantly impact nearby sensitive receptors during the proposed Project's operational phase, since the proposed Project does generate trips by heavy-duty diesel trucks, which are an emitter of diesel particulate matter (DPM). Impacts to sensitive receptors from substantial pollutant concentrations would be less than significant.

Carbon Monoxide Hotspots

An analysis of CO "hot spots" is needed to determine whether the change in the level of service of an intersection resulting from the Project would have the potential to result in exceedances of the CAAQS or NAAQS. It has long been recognized that CO exceedances are caused by vehicular emissions, primarily when vehicles are idling at intersections. Vehicle emissions standards have become increasingly stringent in the last 20 years. Currently, the CO standard in California is a maximum of 3.4 grams per mile for passenger cars (requirements for certain vehicles are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities, CO concentrations have steadily declined. Accordingly, with the steadily decreasing CO emissions from vehicles, even very busy intersections do not result in exceedances of the CO standard.

Although the SJVAPCD has not established a specific numerical screening threshold for CO impacts, the Bay Area Air Quality Management District (BAAQMD) has established that, under existing and future vehicle emissions rates, a project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal air does not mix (i.e., bridges and tunnels)—in order to generate a substantial CO impact. As described above, the proposed Project would generate a maximum of approximately 298 daily trips, which would be significantly less than the volumes cited above. Thus, the proposed Project would not have the potential to substantially increase CO hotspots at intersections in the vicinity of the Project site, and impacts would be less than significant.

Mitigation Measures: No mitigation is required.

Level of Significance: Less than significant impact.

Threshold 5.4 Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Construction

During construction, emissions from construction equipment, such as diesel exhaust, and volatile organic compounds from architectural coatings and paving activities may generate odors. However, these odors would be temporary, are not expected to affect a substantial number of people and would disperse

rapidly. Therefore, impacts related to odors associated with the Project's construction-related activities would be less than significant.

Operations

Land uses that are typically identified as sources of objectionable odors include landfills, transfer stations, sewage treatment plants, wastewater pump stations, composting facilities, feed lots, coffee roasters, asphalt batch plants, and rendering plants. The Project would not engage in any of these activities. Therefore, the Project would not be considered a generator of objectionable odors during operations.

Mitigation Measures: No mitigation is required.

Level of Significance: No impact.

6 REFERENCES

1. California Air Pollution Control Officers Association, *Health Effects*, 2018.
2. California Air Pollution Control Officers Association, *Health Risk Assessments for Proposed Land Use Projects*, 2009.
3. California Air Resources Board, *Aerometric Data Analysis and Measurement System (ADAM) Top Four Summaries from 2016 to 2018*, 2020.
4. California Air Resources Board, *Air Quality and Land Use Handbook: A Community Health Perspective*, 2005.
5. California Air Resources Board, *Ambient Air Quality Standards*, May 6, 2016.
6. California Air Resources Board, *Current Air Quality Standards*, 2016.
7. California Air Resources Board, *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*, 2000.
8. City of Bakersfield, *Metropolitan Bakersfield General Plan*, adopted December 2002
9. City of Bakersfield, *Bakersfield Municipal Code*, current through Ordinance 5077, passed March 16, 2022.
10. Office of Environmental Health Hazard Assessment, *Air Toxics Hot Spots Program Risk Assessment Guidelines*, 2015.
11. San Joaquin Valley Air Pollution Control District, *2016 Plan for the 2008 8-Hour Ozone Standard*, http://www.valleyair.org/Air_Quality_Plans/Ozone-Plan-2016.htm, accessed April 11, 2022.
12. San Joaquin Valley Air Pollution Control District, *2022 Ozone Plan for the San Joaquin Valley*, <https://ww2.valleyair.org/plans/2022-ozone-plan-for-the-san-joaquin-valley/>, accessed April 11, 2022.
13. San Joaquin Valley Air Pollution Control District, *Air Quality Modeling: Permitting & CEQA*, https://www.valleyair.org/busind/pto/Tox_Resources/AirQualityMonitoring.htm#met_data, accessed April 11, 2022.
14. San Joaquin Valley Air Pollution Control District, *Air Quality Thresholds of Significance – Criteria Pollutants*, 2015.
15. San Joaquin Valley Air Pollution Control District, *Ambient Air Quality Standards & Valley Attainment Status*, <http://www.valleyair.org/aqinfo/attainment.htm>, accessed April 11, 2022.
16. San Joaquin Valley Air Pollution Control District, Final Draft, *Guidance for Assessing and Mitigating Air Quality Impacts*, February 19, 2015.
17. San Joaquin Valley Air Pollution Control District, *Ozone Plans*, http://valleyair.org/Air_Quality_Plans/Ozone_Plans.htm, accessed April 11, 2022.
18. San Joaquin Valley Air Pollution Control District, *Particulate Matter Plans*, http://valleyair.org/Air_Quality_Plans/PM_Plans.htm, accessed April 11, 2022.
19. United States Environmental Protection Agency, *Nonattainment Areas for Criteria Pollutants (Green Book)*, 2020.

Appendix A

Air Quality Modeling Data

Bakersfield U-Haul - Kern-San Joaquin County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

**Bakersfield U-Haul
Kern-San Joaquin County, Summer**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	205.31	1000sqft	1.59	205,310.00	0
Parking Lot	30.00	Space	7.97	347,057.00	0
City Park	1.67	Acre	1.67	72,887.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	32
Climate Zone	3			Operational Year	2023
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 - 30 parking spaces but total impervious area noted on site plan is 7.97 acres

Construction Phase - No demolition required - project is built on a vacant site with no existing buildings or paving material.

Trips and VMT -

Demolition - site is vacant - no demolition required for project

Grading - per construction questionnaire

Architectural Coating -

Vehicle Trips - Trip rate per trip generation summary table.

Area Coating -

Water And Wastewater -

Bakersfield U-Haul - Kern-San Joaquin County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

- Solid Waste -
- Land Use Change -
- Sequestration -
- Construction Off-road Equipment Mitigation - Per SJVAPCD Rules and Regulations
- Water Mitigation -
- Waste Mitigation -
- Off-road Equipment - Anticipated construction equipment/hours
- Off-road Equipment - Anticipated construction equipment/duration
- Off-road Equipment -
- Off-road Equipment -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	73.00
tblConstructionPhase	NumDays	300.00	100.00
tblConstructionPhase	NumDays	30.00	40.00
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	10.00	5.00
tblGrading	MaterialImported	0.00	500.00
tblLandUse	LandUseSquareFeet	12,000.00	347,057.00
tblLandUse	LandUseSquareFeet	72,745.20	72,887.00
tblLandUse	LotAcreage	4.71	1.59
tblLandUse	LotAcreage	0.27	7.97
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblSequestration	NumberOfNewTrees	0.00	71.00
tblSequestration	NumberOfNewTrees	0.00	12.00

Bakersfield U-Haul - Kern-San Joaquin County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	1.74	1.45
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	1.74	1.45
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	1.74	1.45

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	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
Year	lb/day										lb/day					
2023	44.0235	27.5583	28.1160	0.0744	19.8049	1.2668	21.0717	10.1417	1.1655	11.3071	0.0000	7,461.7674	7,461.7674	1.4138	0.3848	7,593.3498
Maximum	44.0235	27.5583	28.1160	0.0744	19.8049	1.2668	21.0717	10.1417	1.1655	11.3071	0.0000	7,461.7674	7,461.7674	1.4138	0.3848	7,593.3498

Mitigated Construction

	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
Year	lb/day										lb/day					
2023	44.0235	27.5583	28.1160	0.0744	7.4231	1.2668	8.6899	3.7803	1.1655	4.9458	0.0000	7,461.7674	7,461.7674	1.4138	0.3848	7,593.3498

Bakersfield U-Haul - Kern-San Joaquin County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Maximum	44.0235	27.5583	28.1160	0.0744	7.4231	1.2668	8.6899	3.7803	1.1655	4.9458	0.0000	7,461.7674	7,461.7674	1.4138	0.3848	7,593.3498
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	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
Percent Reduction	0.00	0.00	0.00	0.00	62.52	0.00	58.76	62.73	0.00	56.26	0.00	0.00	0.00	0.00	0.00	0.00

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	lb/day										lb/day					
Area	5.3444	2.2000e-004	0.0242	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0519	0.0519	1.4000e-004		0.0553
Energy	0.1086	0.9877	0.8296	5.9300e-003		0.0751	0.0751		0.0751	0.0751		1,185.2062	1,185.2062	0.0227	0.0217	1,192.2492
Mobile	1.0915	1.7091	9.2741	0.0218	1.8461	0.0200	1.8661	0.4936	0.0188	0.5124		2,249.7148	2,249.7148	0.1067	0.1256	2,289.7981
Total	6.5445	2.6970	10.1279	0.0278	1.8461	0.0951	1.9412	0.4936	0.0939	0.5875		3,434.9728	3,434.9728	0.1295	0.1473	3,482.1026

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Bakersfield U-Haul - Kern-San Joaquin County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Area	5.3444	2.2000e-004	0.0242	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0519	0.0519	1.4000e-004		0.0553
Energy	0.1086	0.9877	0.8296	5.9300e-003		0.0751	0.0751		0.0751	0.0751		1,185.2062	1,185.2062	0.0227	0.0217	1,192.2492
Mobile	1.0915	1.7091	9.2741	0.0218	1.8461	0.0200	1.8661	0.4936	0.0188	0.5124		2,249.7148	2,249.7148	0.1067	0.1256	2,289.7981
Total	6.5445	2.6970	10.1279	0.0278	1.8461	0.0951	1.9412	0.4936	0.0939	0.5875		3,434.9728	3,434.9728	0.1295	0.1473	3,482.1026

	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
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	2/1/2023	2/7/2023	5	5	
2	Grading	Grading	2/8/2023	4/4/2023	5	40	
3	Building Construction	Building Construction	4/5/2023	8/22/2023	5	100	
4	Architectural Coating	Architectural Coating	6/22/2023	10/2/2023	5	73	
5	Paving	Paving	8/23/2023	9/12/2023	5	15	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 120

Acres of Paving: 7.97

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 307,965; Non-Residential Outdoor: 102,655; Striped Parking Area: 20,823

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40

Bakersfield U-Haul - Kern-San Joaquin County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	1	7.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	63.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	263.00	102.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	53.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Bakersfield U-Haul - Kern-San Joaquin County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	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					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.3081	3,687.3081	1.1926		3,717.1219
Total	2.6595	27.5242	18.2443	0.0381	19.6570	1.2660	20.9230	10.1025	1.1647	11.2672		3,687.3081	3,687.3081	1.1926		3,717.1219

Unmitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0621	0.0341	0.5039	1.3900e-003	0.1479	7.9000e-004	0.1487	0.0392	7.3000e-004	0.0400		142.6880	142.6880	3.7400e-003	3.5000e-003	143.8252
Total	0.0621	0.0341	0.5039	1.3900e-003	0.1479	7.9000e-004	0.1487	0.0392	7.3000e-004	0.0400		142.6880	142.6880	3.7400e-003	3.5000e-003	143.8252

Bakersfield U-Haul - Kern-San Joaquin County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction On-Site

	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					
Fugitive Dust					7.2829	0.0000	7.2829	3.7430	0.0000	3.7430			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647	0.0000	3,687.3081	3,687.3081	1.1926		3,717.1219
Total	2.6595	27.5242	18.2443	0.0381	7.2829	1.2660	8.5489	3.7430	1.1647	4.9077	0.0000	3,687.3081	3,687.3081	1.1926		3,717.1219

Mitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0621	0.0341	0.5039	1.3900e-003	0.1402	7.9000e-004	0.1410	0.0373	7.3000e-004	0.0381		142.6880	142.6880	3.7400e-003	3.5000e-003	143.8252
Total	0.0621	0.0341	0.5039	1.3900e-003	0.1402	7.9000e-004	0.1410	0.0373	7.3000e-004	0.0381		142.6880	142.6880	3.7400e-003	3.5000e-003	143.8252

Bakersfield U-Haul - Kern-San Joaquin County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2023

Unmitigated Construction On-Site

	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					
Fugitive Dust					9.2054	0.0000	9.2054	3.6540	0.0000	3.6540			0.0000			0.0000
Off-Road	2.4366	25.1968	21.1470	0.0450		1.0591	1.0591		0.9744	0.9744		4,357.5828	4,357.5828	1.4093		4,392.8161
Total	2.4366	25.1968	21.1470	0.0450	9.2054	1.0591	10.2645	3.6540	0.9744	4.6284		4,357.5828	4,357.5828	1.4093		4,392.8161

Unmitigated Construction Off-Site

	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					
Hauling	3.5500e-003	0.1850	0.0426	9.2000e-004	0.0276	1.9000e-003	0.0295	7.5800e-003	1.8100e-003	9.3900e-003		97.1722	97.1722	3.2000e-004	0.0153	101.7328
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0690	0.0379	0.5599	1.5500e-003	0.1643	8.8000e-004	0.1652	0.0436	8.1000e-004	0.0444		158.5422	158.5422	4.1600e-003	3.8900e-003	159.8057
Total	0.0725	0.2228	0.6025	2.4700e-003	0.1919	2.7800e-003	0.1947	0.0512	2.6200e-003	0.0538		255.7143	255.7143	4.4800e-003	0.0192	261.5385

Bakersfield U-Haul - Kern-San Joaquin County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction On-Site

	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					
Fugitive Dust					3.4106	0.0000	3.4106	1.3538	0.0000	1.3538			0.0000			0.0000
Off-Road	2.4366	25.1968	21.1470	0.0450		1.0591	1.0591		0.9744	0.9744	0.0000	4,357.5828	4,357.5828	1.4093		4,392.8161
Total	2.4366	25.1968	21.1470	0.0450	3.4106	1.0591	4.4697	1.3538	0.9744	2.3282	0.0000	4,357.5828	4,357.5828	1.4093		4,392.8161

Mitigated Construction Off-Site

	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						
Hauling	3.5500e-003	0.1850	0.0426	9.2000e-004	0.0264	1.9000e-003	0.0283	7.2700e-003	1.8100e-003	9.0800e-003			97.1722	97.1722	3.2000e-004	0.0153	101.7328
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0690	0.0379	0.5599	1.5500e-003	0.1557	8.8000e-004	0.1566	0.0415	8.1000e-004	0.0423			158.5422	158.5422	4.1600e-003	3.8900e-003	159.8057
Total	0.0725	0.2228	0.6025	2.4700e-003	0.1821	2.7800e-003	0.1849	0.0488	2.6200e-003	0.0514			255.7143	255.7143	4.4800e-003	0.0192	261.5385

3.4 Building Construction - 2023

Unmitigated Construction On-Site

Bakersfield U-Haul - Kern-San Joaquin County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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					
Off-Road	1.5288	13.9080	16.0147	0.0262		0.6798	0.6798		0.6401	0.6401		2,485.3575	2,485.3575	0.5853		2,499.9889
Total	1.5288	13.9080	16.0147	0.0262		0.6798	0.6798		0.6401	0.6401		2,485.3575	2,485.3575	0.5853		2,499.9889

Unmitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1225	4.3049	1.4433	0.0208	0.6917	0.0295	0.7212	0.1992	0.0282	0.2274		2,189.9953	2,189.9953	8.6200e-003	0.3233	2,286.5615
Worker	0.9071	0.4980	7.3631	0.0204	2.1605	0.0116	2.1721	0.5731	0.0107	0.5837		2,084.8297	2,084.8297	0.0547	0.0512	2,101.4453
Total	1.0297	4.8029	8.8064	0.0411	2.8522	0.0411	2.8933	0.7723	0.0389	0.8111		4,274.8250	4,274.8250	0.0633	0.3745	4,388.0068

Mitigated Construction On-Site

Bakersfield U-Haul - Kern-San Joaquin County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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					
Off-Road	1.5288	13.9080	16.0147	0.0262		0.6798	0.6798		0.6401	0.6401	0.0000	2,485.3575	2,485.3575	0.5853		2,499.9889
Total	1.5288	13.9080	16.0147	0.0262		0.6798	0.6798		0.6401	0.6401	0.0000	2,485.3575	2,485.3575	0.5853		2,499.9889

Mitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1225	4.3049	1.4433	0.0208	0.6622	0.0295	0.6917	0.1920	0.0282	0.2202		2,189.9953	2,189.9953	8.6200e-003	0.3233	2,286.5615
Worker	0.9071	0.4980	7.3631	0.0204	2.0478	0.0116	2.0594	0.5454	0.0107	0.5561		2,084.8297	2,084.8297	0.0547	0.0512	2,101.4453
Total	1.0297	4.8029	8.8064	0.0411	2.7100	0.0411	2.7511	0.7374	0.0389	0.7762		4,274.8250	4,274.8250	0.0633	0.3745	4,388.0068

3.5 Architectural Coating - 2023

Unmitigated Construction On-Site

	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					

Bakersfield U-Haul - Kern-San Joaquin County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Archit. Coating	41.0905					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	41.2822	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690

Unmitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1828	0.1004	1.4838	4.1100e-003	0.4354	2.3300e-003	0.4377	0.1155	2.1500e-003	0.1176		420.1368	420.1368	0.0110	0.0103	423.4852
Total	0.1828	0.1004	1.4838	4.1100e-003	0.4354	2.3300e-003	0.4377	0.1155	2.1500e-003	0.1176		420.1368	420.1368	0.0110	0.0103	423.4852

Mitigated Construction On-Site

	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					
Archit. Coating	41.0905					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Bakersfield U-Haul - Kern-San Joaquin County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	41.2822	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690

Mitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1828	0.1004	1.4838	4.1100e-003	0.4127	2.3300e-003	0.4150	0.1099	2.1500e-003	0.1121		420.1368	420.1368	0.0110	0.0103	423.4852
Total	0.1828	0.1004	1.4838	4.1100e-003	0.4127	2.3300e-003	0.4150	0.1099	2.1500e-003	0.1121		420.1368	420.1368	0.0110	0.0103	423.4852

3.6 Paving - 2023

Unmitigated Construction On-Site

	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					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	1.3921					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Bakersfield U-Haul - Kern-San Joaquin County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Total	2.4248	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
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Unmitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0517	0.0284	0.4200	1.1600e-003	0.1232	6.6000e-004	0.1239	0.0327	6.1000e-004	0.0333		118.9066	118.9066	3.1200e-003	2.9200e-003	119.8543
Total	0.0517	0.0284	0.4200	1.1600e-003	0.1232	6.6000e-004	0.1239	0.0327	6.1000e-004	0.0333		118.9066	118.9066	3.1200e-003	2.9200e-003	119.8543

Mitigated Construction On-Site

	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					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	1.3921					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.4248	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336

Bakersfield U-Haul - Kern-San Joaquin County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0517	0.0284	0.4200	1.1600e-003	0.1168	6.6000e-004	0.1175	0.0311	6.1000e-004	0.0317		118.9066	118.9066	3.1200e-003	2.9200e-003	119.8543
Total	0.0517	0.0284	0.4200	1.1600e-003	0.1168	6.6000e-004	0.1175	0.0311	6.1000e-004	0.0317		118.9066	118.9066	3.1200e-003	2.9200e-003	119.8543

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	1.0915	1.7091	9.2741	0.0218	1.8461	0.0200	1.8661	0.4936	0.0188	0.5124		2,249.7148	2,249.7148	0.1067	0.1256	2,289.7981
Unmitigated	1.0915	1.7091	9.2741	0.0218	1.8461	0.0200	1.8661	0.4936	0.0188	0.5124		2,249.7148	2,249.7148	0.1067	0.1256	2,289.7981

Bakersfield U-Haul - Kern-San Joaquin County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	297.70	297.70	297.70	869,137	869,137
Total	297.70	297.70	297.70	869,137	869,137

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
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No Rail	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.475755	0.052577	0.176436	0.169714	0.032065	0.009816	0.013925	0.037355	0.000591	0.000241	0.025277	0.001517	0.004732
Parking Lot	0.475755	0.052577	0.176436	0.169714	0.032065	0.009816	0.013925	0.037355	0.000591	0.000241	0.025277	0.001517	0.004732
Unrefrigerated Warehouse-No Rail	0.475755	0.052577	0.176436	0.169714	0.032065	0.009816	0.013925	0.037355	0.000591	0.000241	0.025277	0.001517	0.004732

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Bakersfield U-Haul - Kern-San Joaquin County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	0.1086	0.9877	0.8296	5.9300e-003		0.0751	0.0751		0.0751	0.0751		1,185.2062	1,185.2062	0.0227	0.0217	1,192.2492
NaturalGas Unmitigated	0.1086	0.9877	0.8296	5.9300e-003		0.0751	0.0751		0.0751	0.0751		1,185.2062	1,185.2062	0.0227	0.0217	1,192.2492

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Pallet	10074.3	0.1086	0.9877	0.8296	5.9300e-003		0.0751	0.0751		0.0751	0.0751		1,185.2062	1,185.2062	0.0227	0.0217	1,192.2492
Total		0.1086	0.9877	0.8296	5.9300e-003		0.0751	0.0751		0.0751	0.0751		1,185.2062	1,185.2062	0.0227	0.0217	1,192.2492

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					

Bakersfield U-Haul - Kern-San Joaquin County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No	10.0743	0.1086	0.9877	0.8296	5.9300e-003		0.0751	0.0751		0.0751	0.0751		1,185.2062	1,185.2062	0.0227	0.0217	1,192.2492
Total		0.1086	0.9877	0.8296	5.9300e-003		0.0751	0.0751		0.0751	0.0751		1,185.2062	1,185.2062	0.0227	0.0217	1,192.2492

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	5.3444	2.2000e-004	0.0242	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0519	0.0519	1.4000e-004			0.0553
Unmitigated	5.3444	2.2000e-004	0.0242	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0519	0.0519	1.4000e-004			0.0553

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Bakersfield U-Haul - Kern-San Joaquin County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

SubCategory	lb/day								lb/day							
Architectural Coating	0.8218					0.0000	0.0000		0.0000	0.0000			0.0000		0.0000	
Consumer Products	4.5203					0.0000	0.0000		0.0000	0.0000			0.0000		0.0000	
Landscaping	2.2400e-003	2.2000e-004	0.0242	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0519	0.0519	1.4000e-004	0.0553	
Total	5.3444	2.2000e-004	0.0242	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0519	0.0519	1.4000e-004	0.0553	

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	0.8218					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.5203					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.2400e-003	2.2000e-004	0.0242	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0519	0.0519	1.4000e-004		0.0553
Total	5.3444	2.2000e-004	0.0242	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0519	0.0519	1.4000e-004		0.0553

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Bakersfield U-Haul - Kern-San Joaquin County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

- Institute Recycling and Composting Services

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

Bakersfield U-Haul - Kern-San Joaquin County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

**Bakersfield U-Haul
Kern-San Joaquin County, Winter**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	205.31	1000sqft	1.59	205,310.00	0
Parking Lot	30.00	Space	7.97	347,057.00	0
City Park	1.67	Acre	1.67	72,887.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	32
Climate Zone	3			Operational Year	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 30 parking spaces but total impervious area noted on site plan is 7.97 acres

Building area = 1.50 AC

Construction Phase - No demolition required - project is built on a vacant site with no existing buildings or paving material.

Trips and VMT -

Demolition - site is vacant - no demolition required for project

Grading - per construction questionnaire

Architectural Coating -

Vehicle Trips - Trip rate per trip generation summary table.

Area Coating -

Water And Wastewater -

Bakersfield U-Haul - Kern-San Joaquin County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

- Solid Waste -
- Land Use Change -
- Sequestration -
- Construction Off-road Equipment Mitigation - Per SJVAPCD Rules and Regulations
- Water Mitigation -
- Waste Mitigation -
- Off-road Equipment - Anticipated construction equipment/hours
- Off-road Equipment - Anticipated construction equipment/duration
- Off-road Equipment -
- Off-road Equipment -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	73.00
tblConstructionPhase	NumDays	300.00	100.00
tblConstructionPhase	NumDays	30.00	40.00
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	10.00	5.00
tblGrading	MaterialImported	0.00	500.00
tblLandUse	LandUseSquareFeet	12,000.00	347,057.00
tblLandUse	LandUseSquareFeet	72,745.20	72,887.00
tblLandUse	LotAcreage	4.71	1.59
tblLandUse	LotAcreage	0.27	7.97
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblSequestration	NumberOfNewTrees	0.00	71.00
tblSequestration	NumberOfNewTrees	0.00	12.00

Bakersfield U-Haul - Kern-San Joaquin County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	1.74	1.45
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	1.74	1.45
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	1.74	1.45

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	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
Year	lb/day										lb/day					
2023	43.9116	27.5632	26.6946	0.0716	19.8049	1.2668	21.0717	10.1417	1.1655	11.3071	0.0000	7,170.9329	7,170.9329	1.4142	0.3916	7,304.6685
Maximum	43.9116	27.5632	26.6946	0.0716	19.8049	1.2668	21.0717	10.1417	1.1655	11.3071	0.0000	7,170.9329	7,170.9329	1.4142	0.3916	7,304.6685

Mitigated Construction

	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
Year	lb/day										lb/day					
2023	43.9116	27.5632	26.6946	0.0716	7.4231	1.2668	8.6899	3.7803	1.1655	4.9458	0.0000	7,170.9329	7,170.9329	1.4142	0.3916	7,304.6685

Bakersfield U-Haul - Kern-San Joaquin County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Maximum	43.9116	27.5632	26.6946	0.0716	7.4231	1.2668	8.6899	3.7803	1.1655	4.9458	0.0000	7,170.9329	7,170.9329	1.4142	0.3916	7,304.6685
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	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
Percent Reduction	0.00	0.00	0.00	0.00	62.52	0.00	58.76	62.73	0.00	56.26	0.00	0.00	0.00	0.00	0.00	0.00

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	lb/day										lb/day					
Area	5.3444	2.2000e-004	0.0242	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0519	0.0519	1.4000e-004		0.0553
Energy	0.1086	0.9877	0.8296	5.9300e-003		0.0751	0.0751		0.0751	0.0751		1,185.2062	1,185.2062	0.0227	0.0217	1,192.2492
Mobile	0.8641	1.8853	8.6954	0.0201	1.8461	0.0200	1.8661	0.4936	0.0188	0.5124		2,070.6343	2,070.6343	0.1161	0.1313	2,112.6482
Total	6.3171	2.8732	9.5493	0.0260	1.8461	0.0951	1.9412	0.4936	0.0940	0.5875		3,255.8923	3,255.8923	0.1390	0.1530	3,304.9527

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Bakersfield U-Haul - Kern-San Joaquin County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Area	5.3444	2.2000e-004	0.0242	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0519	0.0519	1.4000e-004		0.0553
Energy	0.1086	0.9877	0.8296	5.9300e-003		0.0751	0.0751		0.0751	0.0751		1,185.2062	1,185.2062	0.0227	0.0217	1,192.2492
Mobile	0.8641	1.8853	8.6954	0.0201	1.8461	0.0200	1.8661	0.4936	0.0188	0.5124		2,070.6343	2,070.6343	0.1161	0.1313	2,112.6482
Total	6.3171	2.8732	9.5493	0.0260	1.8461	0.0951	1.9412	0.4936	0.0940	0.5875		3,255.8923	3,255.8923	0.1390	0.1530	3,304.9527

	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
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	2/1/2023	2/7/2023	5	5	
2	Grading	Grading	2/8/2023	4/4/2023	5	40	
3	Building Construction	Building Construction	4/5/2023	8/22/2023	5	100	
4	Architectural Coating	Architectural Coating	6/22/2023	10/2/2023	5	73	
5	Paving	Paving	8/23/2023	9/12/2023	5	15	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 120

Acres of Paving: 7.97

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 307,965; Non-Residential Outdoor: 102,655; Striped Parking Area: 20,823

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40

Bakersfield U-Haul - Kern-San Joaquin County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	1	7.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	63.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	263.00	102.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	53.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Bakersfield U-Haul - Kern-San Joaquin County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	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					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.3081	3,687.3081	1.1926		3,717.1219
Total	2.6595	27.5242	18.2443	0.0381	19.6570	1.2660	20.9230	10.1025	1.1647	11.2672		3,687.3081	3,687.3081	1.1926		3,717.1219

Unmitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0542	0.0390	0.4202	1.2300e-003	0.1479	7.9000e-004	0.1487	0.0392	7.3000e-004	0.0400		125.8580	125.8580	4.0700e-003	3.8300e-003	127.1007
Total	0.0542	0.0390	0.4202	1.2300e-003	0.1479	7.9000e-004	0.1487	0.0392	7.3000e-004	0.0400		125.8580	125.8580	4.0700e-003	3.8300e-003	127.1007

Bakersfield U-Haul - Kern-San Joaquin County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction On-Site

	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					
Fugitive Dust					7.2829	0.0000	7.2829	3.7430	0.0000	3.7430			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647	0.0000	3,687.3081	3,687.3081	1.1926		3,717.1219
Total	2.6595	27.5242	18.2443	0.0381	7.2829	1.2660	8.5489	3.7430	1.1647	4.9077	0.0000	3,687.3081	3,687.3081	1.1926		3,717.1219

Mitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0542	0.0390	0.4202	1.2300e-003	0.1402	7.9000e-004	0.1410	0.0373	7.3000e-004	0.0381		125.8580	125.8580	4.0700e-003	3.8300e-003	127.1007
Total	0.0542	0.0390	0.4202	1.2300e-003	0.1402	7.9000e-004	0.1410	0.0373	7.3000e-004	0.0381		125.8580	125.8580	4.0700e-003	3.8300e-003	127.1007

Bakersfield U-Haul - Kern-San Joaquin County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2023

Unmitigated Construction On-Site

	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					
Fugitive Dust					9.2054	0.0000	9.2054	3.6540	0.0000	3.6540			0.0000			0.0000
Off-Road	2.4366	25.1968	21.1470	0.0450		1.0591	1.0591		0.9744	0.9744		4,357.5828	4,357.5828	1.4093		4,392.8161
Total	2.4366	25.1968	21.1470	0.0450	9.2054	1.0591	10.2645	3.6540	0.9744	4.6284		4,357.5828	4,357.5828	1.4093		4,392.8161

Unmitigated Construction Off-Site

	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					
Hauling	3.2800e-003	0.1984	0.0435	9.2000e-004	0.0276	1.9000e-003	0.0295	7.5800e-003	1.8200e-003	9.3900e-003		97.3134	97.3134	3.1000e-004	0.0153	101.8804
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0602	0.0434	0.4669	1.3700e-003	0.1643	8.8000e-004	0.1652	0.0436	8.1000e-004	0.0444		139.8422	139.8422	4.5200e-003	4.2500e-003	141.2230
Total	0.0635	0.2418	0.5104	2.2900e-003	0.1919	2.7800e-003	0.1947	0.0512	2.6300e-003	0.0538		237.1556	237.1556	4.8300e-003	0.0196	243.1034

Bakersfield U-Haul - Kern-San Joaquin County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction On-Site

	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					
Fugitive Dust					3.4106	0.0000	3.4106	1.3538	0.0000	1.3538			0.0000			0.0000
Off-Road	2.4366	25.1968	21.1470	0.0450		1.0591	1.0591		0.9744	0.9744	0.0000	4,357.5828	4,357.5828	1.4093		4,392.8161
Total	2.4366	25.1968	21.1470	0.0450	3.4106	1.0591	4.4697	1.3538	0.9744	2.3282	0.0000	4,357.5828	4,357.5828	1.4093		4,392.8161

Mitigated Construction Off-Site

	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					
Hauling	3.2800e-003	0.1984	0.0435	9.2000e-004	0.0264	1.9000e-003	0.0283	7.2700e-003	1.8200e-003	9.0900e-003		97.3134	97.3134	3.1000e-004	0.0153	101.8804
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0602	0.0434	0.4669	1.3700e-003	0.1557	8.8000e-004	0.1566	0.0415	8.1000e-004	0.0423		139.8422	139.8422	4.5200e-003	4.2500e-003	141.2230
Total	0.0635	0.2418	0.5104	2.2900e-003	0.1821	2.7800e-003	0.1849	0.0488	2.6300e-003	0.0514		237.1556	237.1556	4.8300e-003	0.0196	243.1034

3.4 Building Construction - 2023

Unmitigated Construction On-Site

Bakersfield U-Haul - Kern-San Joaquin County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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					
Off-Road	1.5288	13.9080	16.0147	0.0262		0.6798	0.6798		0.6401	0.6401		2,485.3575	2,485.3575	0.5853		2,499.9889
Total	1.5288	13.9080	16.0147	0.0262		0.6798	0.6798		0.6401	0.6401		2,485.3575	2,485.3575	0.5853		2,499.9889

Unmitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1146	4.6156	1.4916	0.0208	0.6917	0.0296	0.7213	0.1992	0.0283	0.2275		2,194.6200	2,194.6200	8.2700e-003	0.3244	2,291.4869
Worker	0.7914	0.5702	6.1398	0.0180	2.1605	0.0116	2.1721	0.5731	0.0107	0.5837		1,838.9254	1,838.9254	0.0595	0.0559	1,857.0827
Total	0.9060	5.1858	7.6315	0.0388	2.8522	0.0412	2.8934	0.7723	0.0390	0.8112		4,033.5454	4,033.5454	0.0678	0.3803	4,148.5697

Mitigated Construction On-Site

Bakersfield U-Haul - Kern-San Joaquin County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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					
Off-Road	1.5288	13.9080	16.0147	0.0262		0.6798	0.6798		0.6401	0.6401	0.0000	2,485.3575	2,485.3575	0.5853		2,499.9889
Total	1.5288	13.9080	16.0147	0.0262		0.6798	0.6798		0.6401	0.6401	0.0000	2,485.3575	2,485.3575	0.5853		2,499.9889

Mitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1146	4.6156	1.4916	0.0208	0.6622	0.0296	0.6918	0.1920	0.0283	0.2203		2,194.6200	2,194.6200	8.2700e-003	0.3244	2,291.4869
Worker	0.7914	0.5702	6.1398	0.0180	2.0478	0.0116	2.0594	0.5454	0.0107	0.5561		1,838.9254	1,838.9254	0.0595	0.0559	1,857.0827
Total	0.9060	5.1858	7.6315	0.0388	2.7100	0.0412	2.7512	0.7374	0.0390	0.7763		4,033.5454	4,033.5454	0.0678	0.3803	4,148.5697

3.5 Architectural Coating - 2023

Unmitigated Construction On-Site

	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					

Bakersfield U-Haul - Kern-San Joaquin County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Archit. Coating	41.0905					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	41.2822	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690

Unmitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1595	0.1149	1.2373	3.6200e-003	0.4354	2.3300e-003	0.4377	0.1155	2.1500e-003	0.1176		370.5819	370.5819	0.0120	0.0113	374.2410
Total	0.1595	0.1149	1.2373	3.6200e-003	0.4354	2.3300e-003	0.4377	0.1155	2.1500e-003	0.1176		370.5819	370.5819	0.0120	0.0113	374.2410

Mitigated Construction On-Site

	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					
Archit. Coating	41.0905					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Bakersfield U-Haul - Kern-San Joaquin County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	41.2822	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690

Mitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1595	0.1149	1.2373	3.6200e-003	0.4127	2.3300e-003	0.4150	0.1099	2.1500e-003	0.1121		370.5819	370.5819	0.0120	0.0113	374.2410
Total	0.1595	0.1149	1.2373	3.6200e-003	0.4127	2.3300e-003	0.4150	0.1099	2.1500e-003	0.1121		370.5819	370.5819	0.0120	0.0113	374.2410

3.6 Paving - 2023

Unmitigated Construction On-Site

	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					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	1.3921					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Bakersfield U-Haul - Kern-San Joaquin County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Total	2.4248	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
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Unmitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0451	0.0325	0.3502	1.0200e-003	0.1232	6.6000e-004	0.1239	0.0327	6.1000e-004	0.0333		104.8817	104.8817	3.3900e-003	3.1900e-003	105.9173
Total	0.0451	0.0325	0.3502	1.0200e-003	0.1232	6.6000e-004	0.1239	0.0327	6.1000e-004	0.0333		104.8817	104.8817	3.3900e-003	3.1900e-003	105.9173

Mitigated Construction On-Site

	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					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	1.3921					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.4248	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336

Bakersfield U-Haul - Kern-San Joaquin County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0451	0.0325	0.3502	1.0200e-003	0.1168	6.6000e-004	0.1175	0.0311	6.1000e-004	0.0317		104.8817	104.8817	3.3900e-003	3.1900e-003	105.9173
Total	0.0451	0.0325	0.3502	1.0200e-003	0.1168	6.6000e-004	0.1175	0.0311	6.1000e-004	0.0317		104.8817	104.8817	3.3900e-003	3.1900e-003	105.9173

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	0.8641	1.8853	8.6954	0.0201	1.8461	0.0200	1.8661	0.4936	0.0188	0.5124		2,070.6343	2,070.6343	0.1161	0.1313	2,112.6482
Unmitigated	0.8641	1.8853	8.6954	0.0201	1.8461	0.0200	1.8661	0.4936	0.0188	0.5124		2,070.6343	2,070.6343	0.1161	0.1313	2,112.6482

Bakersfield U-Haul - Kern-San Joaquin County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	297.70	297.70	297.70	869,137	869,137
Total	297.70	297.70	297.70	869,137	869,137

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
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No Rail	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.475755	0.052577	0.176436	0.169714	0.032065	0.009816	0.013925	0.037355	0.000591	0.000241	0.025277	0.001517	0.004732
Parking Lot	0.475755	0.052577	0.176436	0.169714	0.032065	0.009816	0.013925	0.037355	0.000591	0.000241	0.025277	0.001517	0.004732
Unrefrigerated Warehouse-No Rail	0.475755	0.052577	0.176436	0.169714	0.032065	0.009816	0.013925	0.037355	0.000591	0.000241	0.025277	0.001517	0.004732

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Bakersfield U-Haul - Kern-San Joaquin County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	0.1086	0.9877	0.8296	5.9300e-003		0.0751	0.0751		0.0751	0.0751		1,185.2062	1,185.2062	0.0227	0.0217	1,192.2492
NaturalGas Unmitigated	0.1086	0.9877	0.8296	5.9300e-003		0.0751	0.0751		0.0751	0.0751		1,185.2062	1,185.2062	0.0227	0.0217	1,192.2492

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Pallet	10074.3	0.1086	0.9877	0.8296	5.9300e-003		0.0751	0.0751		0.0751	0.0751		1,185.2062	1,185.2062	0.0227	0.0217	1,192.2492
Total		0.1086	0.9877	0.8296	5.9300e-003		0.0751	0.0751		0.0751	0.0751		1,185.2062	1,185.2062	0.0227	0.0217	1,192.2492

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					

Bakersfield U-Haul - Kern-San Joaquin County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No	10.0743	0.1086	0.9877	0.8296	5.9300e-003		0.0751	0.0751		0.0751	0.0751		1,185.2062	1,185.2062	0.0227	0.0217	1,192.2492
Total		0.1086	0.9877	0.8296	5.9300e-003		0.0751	0.0751		0.0751	0.0751		1,185.2062	1,185.2062	0.0227	0.0217	1,192.2492

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	5.3444	2.2000e-004	0.0242	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0519	0.0519	1.4000e-004			0.0553
Unmitigated	5.3444	2.2000e-004	0.0242	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0519	0.0519	1.4000e-004			0.0553

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Bakersfield U-Haul - Kern-San Joaquin County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

SubCategory	lb/day								lb/day							
Architectural Coating	0.8218					0.0000	0.0000		0.0000	0.0000			0.0000		0.0000	
Consumer Products	4.5203					0.0000	0.0000		0.0000	0.0000			0.0000		0.0000	
Landscaping	2.2400e-003	2.2000e-004	0.0242	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0519	0.0519	1.4000e-004	0.0553	
Total	5.3444	2.2000e-004	0.0242	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0519	0.0519	1.4000e-004	0.0553	

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	0.8218					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.5203					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.2400e-003	2.2000e-004	0.0242	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0519	0.0519	1.4000e-004		0.0553
Total	5.3444	2.2000e-004	0.0242	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0519	0.0519	1.4000e-004		0.0553

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Bakersfield U-Haul - Kern-San Joaquin County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

- Institute Recycling and Composting Services

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

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

**Bakersfield U-Haul
Kern-San Joaquin County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	205.31	1000sqft	1.59	205,310.00	0
Parking Lot	30.00	Space	7.97	347,057.00	0
City Park	1.67	Acre	1.67	72,887.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	32
Climate Zone	3			Operational Year	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 30 parking spaces but total impervious area noted on site plan is 7.97 acres

Building area = 1,504 sqft

Construction Phase - No demolition required - project is built on a vacant site with no existing buildings or paving material.

Trips and VMT -

Demolition - site is vacant - no demolition required for project

Grading - per construction questionnaire

Architectural Coating -

Vehicle Trips - Trip rate per trip generation summary table.

Area Coating -

Water And Wastewater -

Bakersfield U-Haul - Kern-San Joaquin County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

- Solid Waste -
- Land Use Change -
- Sequestration -
- Construction Off-road Equipment Mitigation - Per SJVAPCD Rules and Regulations
- Water Mitigation -
- Waste Mitigation -
- Off-road Equipment - Anticipated construction equipment/hours
- Off-road Equipment - Anticipated construction equipment/duration
- Off-road Equipment -
- Off-road Equipment -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	73.00
tblConstructionPhase	NumDays	300.00	100.00
tblConstructionPhase	NumDays	30.00	40.00
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	10.00	5.00
tblGrading	MaterialImported	0.00	500.00
tblLandUse	LandUseSquareFeet	12,000.00	347,057.00
tblLandUse	LandUseSquareFeet	72,745.20	72,887.00
tblLandUse	LotAcreage	4.71	1.59
tblLandUse	LotAcreage	0.27	7.97
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblSequestration	NumberOfNewTrees	0.00	71.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblSequestration	NumberOfNewTrees	0.00	12.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	1.74	1.45
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	1.74	1.45
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	1.74	1.45

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	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
Year	tons/yr										MT/yr					
2023	1.7085	1.6535	1.8929	4.7500e-003	0.3939	0.0670	0.4608	0.1418	0.0626	0.2044	0.0000	428.5123	428.5123	0.0637	0.0179	435.4233
Maximum	1.7085	1.6535	1.8929	4.7500e-003	0.3939	0.0670	0.4608	0.1418	0.0626	0.2044	0.0000	428.5123	428.5123	0.0637	0.0179	435.4233

Mitigated Construction

	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
Year	tons/yr										MT/yr					

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2023	1.7085	1.6535	1.8929	4.7500e-003	0.2390	0.0670	0.3060	0.0779	0.0626	0.1405	0.0000	428.5120	428.5120	0.0637	0.0179	435.4231
Maximum	1.7085	1.6535	1.8929	4.7500e-003	0.2390	0.0670	0.3060	0.0779	0.0626	0.1405	0.0000	428.5120	428.5120	0.0637	0.0179	435.4231

	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
Percent Reduction	0.00	0.00	0.00	0.00	39.32	0.00	33.60	45.05	0.00	31.25	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	2-1-2023	4-30-2023	0.8320	0.8320
2	5-1-2023	7-31-2023	1.3113	1.3113
3	8-1-2023	9-30-2023	1.1963	1.1963
		Highest	1.3113	1.3113

2.2 Overall Operational
Unmitigated Operational

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
	tons/yr										MT/yr					
Area	0.9751	2.0000e-005	2.1800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.2300e-003	4.2300e-003	1.0000e-005	0.0000	4.5100e-003
Energy	0.0198	0.1803	0.1514	1.0800e-003		0.0137	0.0137		0.0137	0.0137	0.0000	383.7464	383.7464	0.0341	7.2700e-003	386.7668
Mobile	0.1639	0.3309	1.5556	3.7400e-003	0.3297	3.6300e-003	0.3333	0.0883	3.4200e-003	0.0917	0.0000	349.4085	349.4085	0.0183	0.0212	356.1841
Waste						0.0000	0.0000		0.0000	0.0000	39.2036	0.0000	39.2036	2.3169	0.0000	97.1254
Water						0.0000	0.0000		0.0000	0.0000	15.0626	24.4140	39.4766	1.5510	0.0370	89.2805

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Total	1.1589	0.5112	1.7092	4.8200e-003	0.3297	0.0173	0.3470	0.0883	0.0171	0.1054	54.2662	757.5732	811.8394	3.9203	0.0655	929.3613
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Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.9751	2.0000e-005	2.1800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.2300e-003	4.2300e-003	1.0000e-005	0.0000	4.5100e-003
Energy	0.0198	0.1803	0.1514	1.0800e-003		0.0137	0.0137		0.0137	0.0137	0.0000	383.7464	383.7464	0.0341	7.2700e-003	386.7668
Mobile	0.1639	0.3309	1.5556	3.7400e-003	0.3297	3.6300e-003	0.3333	0.0883	3.4200e-003	0.0917	0.0000	349.4085	349.4085	0.0183	0.0212	356.1841
Waste						0.0000	0.0000		0.0000	0.0000	19.6018	0.0000	19.6018	1.1584	0.0000	48.5627
Water						0.0000	0.0000		0.0000	0.0000	12.0501	19.6208	31.6708	1.2408	0.0296	71.5149
Total	1.1589	0.5112	1.7092	4.8200e-003	0.3297	0.0173	0.3470	0.0883	0.0171	0.1054	31.6519	752.7799	784.4318	2.4517	0.0581	863.0330

	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
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	41.67	0.63	3.38	37.46	11.30	7.14

2.3 Vegetation

Vegetation

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	CO2e
Category	MT
New Trees	57.9240
Total	57.9240

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	2/1/2023	2/7/2023	5	5	
2	Grading	Grading	2/8/2023	4/4/2023	5	40	
3	Building Construction	Building Construction	4/5/2023	8/22/2023	5	100	
4	Architectural Coating	Architectural Coating	6/22/2023	10/2/2023	5	73	
5	Paving	Paving	8/23/2023	9/12/2023	5	15	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 120

Acres of Paving: 7.97

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 307,965; Non-Residential Outdoor: 102,655; Striped Parking Area: 20,823

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	1	7.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	63.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	263.00	102.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	53.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	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					
Fugitive Dust					0.0491	0.0000	0.0491	0.0253	0.0000	0.0253	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6500e-003	0.0688	0.0456	1.0000e-004		3.1700e-003	3.1700e-003		2.9100e-003	2.9100e-003	0.0000	8.3627	8.3627	2.7000e-003	0.0000	8.4303
Total	6.6500e-003	0.0688	0.0456	1.0000e-004	0.0491	3.1700e-003	0.0523	0.0253	2.9100e-003	0.0282	0.0000	8.3627	8.3627	2.7000e-003	0.0000	8.4303

Unmitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	9.0000e-005	1.0800e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.2958	0.2958	1.0000e-005	1.0000e-005	0.2985
Total	1.3000e-004	9.0000e-005	1.0800e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.2958	0.2958	1.0000e-005	1.0000e-005	0.2985

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction On-Site

	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					
Fugitive Dust					0.0182	0.0000	0.0182	9.3600e-003	0.0000	9.3600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6500e-003	0.0688	0.0456	1.0000e-004		3.1700e-003	3.1700e-003		2.9100e-003	2.9100e-003	0.0000	8.3627	8.3627	2.7000e-003	0.0000	8.4303
Total	6.6500e-003	0.0688	0.0456	1.0000e-004	0.0182	3.1700e-003	0.0214	9.3600e-003	2.9100e-003	0.0123	0.0000	8.3627	8.3627	2.7000e-003	0.0000	8.4303

Mitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	9.0000e-005	1.0800e-003	0.0000	3.4000e-004	0.0000	3.5000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2958	0.2958	1.0000e-005	1.0000e-005	0.2985
Total	1.3000e-004	9.0000e-005	1.0800e-003	0.0000	3.4000e-004	0.0000	3.5000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2958	0.2958	1.0000e-005	1.0000e-005	0.2985

3.3 Grading - 2023

Unmitigated Construction On-Site

Bakersfield U-Haul - Kern-San Joaquin County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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					
Fugitive Dust					0.1841	0.0000	0.1841	0.0731	0.0000	0.0731	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0487	0.5039	0.4229	9.0000e-004		0.0212	0.0212		0.0195	0.0195	0.0000	79.0627	79.0627	0.0256	0.0000	79.7019
Total	0.0487	0.5039	0.4229	9.0000e-004	0.1841	0.0212	0.2053	0.0731	0.0195	0.0926	0.0000	79.0627	79.0627	0.0256	0.0000	79.7019

Unmitigated Construction Off-Site

	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					
Hauling	7.0000e-005	3.8900e-003	8.6000e-004	2.0000e-005	5.4000e-004	4.0000e-005	5.8000e-004	1.5000e-004	4.0000e-005	1.9000e-004	0.0000	1.7641	1.7641	1.0000e-005	2.8000e-004	1.8469
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1700e-003	8.1000e-004	9.5700e-003	3.0000e-005	3.2200e-003	2.0000e-005	3.2400e-003	8.6000e-004	2.0000e-005	8.7000e-004	0.0000	2.6295	2.6295	8.0000e-005	7.0000e-005	2.6534
Total	1.2400e-003	4.7000e-003	0.0104	5.0000e-005	3.7600e-003	6.0000e-005	3.8200e-003	1.0100e-003	6.0000e-005	1.0600e-003	0.0000	4.3936	4.3936	9.0000e-005	3.5000e-004	4.5003

Mitigated Construction On-Site

Bakersfield U-Haul - Kern-San Joaquin County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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					
Fugitive Dust					0.0682	0.0000	0.0682	0.0271	0.0000	0.0271	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0487	0.5039	0.4229	9.0000e-004		0.0212	0.0212		0.0195	0.0195	0.0000	79.0626	79.0626	0.0256	0.0000	79.7018
Total	0.0487	0.5039	0.4229	9.0000e-004	0.0682	0.0212	0.0894	0.0271	0.0195	0.0466	0.0000	79.0626	79.0626	0.0256	0.0000	79.7018

Mitigated Construction Off-Site

	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					
Hauling	7.0000e-005	3.8900e-003	8.6000e-004	2.0000e-005	5.2000e-004	4.0000e-005	5.6000e-004	1.4000e-004	4.0000e-005	1.8000e-004	0.0000	1.7641	1.7641	1.0000e-005	2.8000e-004	1.8469
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1700e-003	8.1000e-004	9.5700e-003	3.0000e-005	3.0600e-003	2.0000e-005	3.0700e-003	8.2000e-004	2.0000e-005	8.3000e-004	0.0000	2.6295	2.6295	8.0000e-005	7.0000e-005	2.6534
Total	1.2400e-003	4.7000e-003	0.0104	5.0000e-005	3.5800e-003	6.0000e-005	3.6300e-003	9.6000e-004	6.0000e-005	1.0100e-003	0.0000	4.3936	4.3936	9.0000e-005	3.5000e-004	4.5003

3.4 Building Construction - 2023

Unmitigated Construction On-Site

Bakersfield U-Haul - Kern-San Joaquin County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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					
Off-Road	0.0764	0.6954	0.8007	1.3100e-003		0.0340	0.0340		0.0320	0.0320	0.0000	112.7339	112.7339	0.0266	0.0000	113.3976
Total	0.0764	0.6954	0.8007	1.3100e-003		0.0340	0.0340		0.0320	0.0320	0.0000	112.7339	112.7339	0.0266	0.0000	113.3976

Unmitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.9100e-003	0.2257	0.0732	1.0400e-003	0.0341	1.4800e-003	0.0355	9.8300e-003	1.4100e-003	0.0112	0.0000	99.4244	99.4244	3.8000e-004	0.0147	103.8112
Worker	0.0384	0.0267	0.3145	9.3000e-004	0.1060	5.8000e-004	0.1065	0.0282	5.3000e-004	0.0287	0.0000	86.4434	86.4434	2.5600e-003	2.4200e-003	87.2299
Total	0.0443	0.2524	0.3877	1.9700e-003	0.1400	2.0600e-003	0.1421	0.0380	1.9400e-003	0.0399	0.0000	185.8679	185.8679	2.9400e-003	0.0171	191.0411

Mitigated Construction On-Site

Bakersfield U-Haul - Kern-San Joaquin County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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					
Off-Road	0.0764	0.6954	0.8007	1.3100e-003		0.0340	0.0340		0.0320	0.0320	0.0000	112.7338	112.7338	0.0266	0.0000	113.3975
Total	0.0764	0.6954	0.8007	1.3100e-003		0.0340	0.0340		0.0320	0.0320	0.0000	112.7338	112.7338	0.0266	0.0000	113.3975

Mitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.9100e-003	0.2257	0.0732	1.0400e-003	0.0326	1.4800e-003	0.0341	9.4700e-003	1.4100e-003	0.0109	0.0000	99.4244	99.4244	3.8000e-004	0.0147	103.8112
Worker	0.0384	0.0267	0.3145	9.3000e-004	0.1005	5.8000e-004	0.1010	0.0268	5.3000e-004	0.0273	0.0000	86.4434	86.4434	2.5600e-003	2.4200e-003	87.2299
Total	0.0443	0.2524	0.3877	1.9700e-003	0.1331	2.0600e-003	0.1351	0.0363	1.9400e-003	0.0382	0.0000	185.8679	185.8679	2.9400e-003	0.0171	191.0411

3.5 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Bakersfield U-Haul - Kern-San Joaquin County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category	tons/yr										MT/yr					
	Archit. Coating	1.4998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.0000e-003	0.0476	0.0661	1.1000e-004		2.5800e-003	2.5800e-003		2.5800e-003	2.5800e-003	0.0000	9.3194	9.3194	5.6000e-004	0.0000	9.3333
Total	1.5068	0.0476	0.0661	1.1000e-004		2.5800e-003	2.5800e-003		2.5800e-003	2.5800e-003	0.0000	9.3194	9.3194	5.6000e-004	0.0000	9.3333

Unmitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.6500e-003	3.9200e-003	0.0463	1.4000e-004	0.0156	9.0000e-005	0.0157	4.1400e-003	8.0000e-005	4.2200e-003	0.0000	12.7167	12.7167	3.8000e-004	3.6000e-004	12.8324
Total	5.6500e-003	3.9200e-003	0.0463	1.4000e-004	0.0156	9.0000e-005	0.0157	4.1400e-003	8.0000e-005	4.2200e-003	0.0000	12.7167	12.7167	3.8000e-004	3.6000e-004	12.8324

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Bakersfield U-Haul - Kern-San Joaquin County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category	tons/yr										MT/yr					
	Archit. Coating	1.4998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.0000e-003	0.0476	0.0661	1.1000e-004		2.5800e-003	2.5800e-003		2.5800e-003	2.5800e-003	0.0000	9.3194	9.3194	5.6000e-004	0.0000	9.3333
Total	1.5068	0.0476	0.0661	1.1000e-004		2.5800e-003	2.5800e-003		2.5800e-003	2.5800e-003	0.0000	9.3194	9.3194	5.6000e-004	0.0000	9.3333

Mitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.6500e-003	3.9200e-003	0.0463	1.4000e-004	0.0148	9.0000e-005	0.0149	3.9400e-003	8.0000e-005	4.0200e-003	0.0000	12.7167	12.7167	3.8000e-004	3.6000e-004	12.8324
Total	5.6500e-003	3.9200e-003	0.0463	1.4000e-004	0.0148	9.0000e-005	0.0149	3.9400e-003	8.0000e-005	4.0200e-003	0.0000	12.7167	12.7167	3.8000e-004	3.6000e-004	12.8324

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Bakersfield U-Haul - Kern-San Joaquin County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category	tons/yr									MT/yr						
	Off-Road	7.7500e-003	0.0764	0.1094	1.7000e-004		3.8300e-003	3.8300e-003		3.5200e-003	3.5200e-003	0.0000	15.0202	15.0202	4.8600e-003	0.0000
Paving	0.0104					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0182	0.0764	0.1094	1.7000e-004		3.8300e-003	3.8300e-003		3.5200e-003	3.5200e-003	0.0000	15.0202	15.0202	4.8600e-003	0.0000	15.1416

Unmitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-004	2.3000e-004	2.6900e-003	1.0000e-005	9.1000e-004	0.0000	9.1000e-004	2.4000e-004	0.0000	2.5000e-004	0.0000	0.7395	0.7395	2.0000e-005	2.0000e-005	0.7463
Total	3.3000e-004	2.3000e-004	2.6900e-003	1.0000e-005	9.1000e-004	0.0000	9.1000e-004	2.4000e-004	0.0000	2.5000e-004	0.0000	0.7395	0.7395	2.0000e-005	2.0000e-005	0.7463

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Bakersfield U-Haul - Kern-San Joaquin County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category	tons/yr									MT/yr						
Off-Road	7.7500e-003	0.0764	0.1094	1.7000e-004		3.8300e-003	3.8300e-003		3.5200e-003	3.5200e-003	0.0000	15.0201	15.0201	4.8600e-003	0.0000	15.1416
Paving	0.0104					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0182	0.0764	0.1094	1.7000e-004		3.8300e-003	3.8300e-003		3.5200e-003	3.5200e-003	0.0000	15.0201	15.0201	4.8600e-003	0.0000	15.1416

Mitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-004	2.3000e-004	2.6900e-003	1.0000e-005	8.6000e-004	0.0000	8.6000e-004	2.3000e-004	0.0000	2.3000e-004	0.0000	0.7395	0.7395	2.0000e-005	2.0000e-005	0.7463
Total	3.3000e-004	2.3000e-004	2.6900e-003	1.0000e-005	8.6000e-004	0.0000	8.6000e-004	2.3000e-004	0.0000	2.3000e-004	0.0000	0.7395	0.7395	2.0000e-005	2.0000e-005	0.7463

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Bakersfield U-Haul - Kern-San Joaquin County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	0.1639	0.3309	1.5556	3.7400e-003	0.3297	3.6300e-003	0.3333	0.0883	3.4200e-003	0.0917	0.0000	349.4085	349.4085	0.0183	0.0212	356.1841
Unmitigated	0.1639	0.3309	1.5556	3.7400e-003	0.3297	3.6300e-003	0.3333	0.0883	3.4200e-003	0.0917	0.0000	349.4085	349.4085	0.0183	0.0212	356.1841

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	297.70	297.70	297.70	869,137	869,137
Total	297.70	297.70	297.70	869,137	869,137

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
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No Rail	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.475755	0.052577	0.176436	0.169714	0.032065	0.009816	0.013925	0.037355	0.000591	0.000241	0.025277	0.001517	0.004732
Parking Lot	0.475755	0.052577	0.176436	0.169714	0.032065	0.009816	0.013925	0.037355	0.000591	0.000241	0.025277	0.001517	0.004732

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Unrefrigerated Warehouse-No Rail	3.6771e+006	0.0198	0.1803	0.1514	1.0800e-003		0.0137	0.0137		0.0137	0.0137	0.0000	196.2242	196.2242	3.7600e-003	3.6000e-003	197.3902
Total		0.0198	0.1803	0.1514	1.0800e-003		0.0137	0.0137		0.0137	0.0137	0.0000	196.2242	196.2242	3.7600e-003	3.6000e-003	197.3902

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	3.6771e+006	0.0198	0.1803	0.1514	1.0800e-003		0.0137	0.0137		0.0137	0.0137	0.0000	196.2242	196.2242	3.7600e-003	3.6000e-003	197.3902
Total		0.0198	0.1803	0.1514	1.0800e-003		0.0137	0.0137		0.0137	0.0137	0.0000	196.2242	196.2242	3.7600e-003	3.6000e-003	197.3902

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
--	-----------------	-----------	-----	-----	------

Bakersfield U-Haul - Kern-San Joaquin County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	121470	11.2389	1.8200e-003	2.2000e-004	11.3500
Unrefrigerated Warehouse-No Rail	1.90528e+006	176.2834	0.0285	3.4600e-003	178.0265
Total		187.5223	0.0303	3.6800e-003	189.3765

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	121470	11.2389	1.8200e-003	2.2000e-004	11.3500
Unrefrigerated Warehouse-No Rail	1.90528e+006	176.2834	0.0285	3.4600e-003	178.0265
Total		187.5223	0.0303	3.6800e-003	189.3765

6.0 Area Detail

6.1 Mitigation Measures Area

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	0.9751	2.0000e-005	2.1800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.2300e-003	4.2300e-003	1.0000e-005	0.0000	4.5100e-003
Unmitigated	0.9751	2.0000e-005	2.1800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.2300e-003	4.2300e-003	1.0000e-005	0.0000	4.5100e-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	0.1500					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8250					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-004	2.0000e-005	2.1800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.2300e-003	4.2300e-003	1.0000e-005	0.0000	4.5100e-003
Total	0.9751	2.0000e-005	2.1800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.2300e-003	4.2300e-003	1.0000e-005	0.0000	4.5100e-003

Mitigated

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	0.1500					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8250					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-004	2.0000e-005	2.1800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.2300e-003	4.2300e-003	1.0000e-005	0.0000	4.5100e-003
Total	0.9751	2.0000e-005	2.1800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.2300e-003	4.2300e-003	1.0000e-005	0.0000	4.5100e-003

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	31.6708	1.2408	0.0296	71.5149

Bakersfield U-Haul - Kern-San Joaquin County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated	39.4766	1.5510	0.0370	89.2805
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7.2 Water by Land Use

Unmitigated

Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e	
Land Use	Mgal	MT/yr			
City Park	0 / 1.98977	0.6444	1.0000e-004	1.0000e-005	0.6507
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	47.4779 / 0	38.8322	1.5509	0.0370	88.6298
Total		39.4766	1.5510	0.0370	89.2805

Mitigated

Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e	
Land Use	Mgal	MT/yr			
City Park	0 / 1.8684	0.6051	1.0000e-004	1.0000e-005	0.6110
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	37.9823 / 0	31.0658	1.2407	0.0296	70.9039

Bakersfield U-Haul - Kern-San Joaquin County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Total	31.6708	1.2408	0.0296	71.5149
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8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	19.6018	1.1584	0.0000	48.5627
Unmitigated	39.2036	2.3169	0.0000	97.1254

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.14	0.0284	1.6800e-003	0.0000	0.0704

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	192.99	39.1752	2.3152	0.0000	97.0550
Total		39.2037	2.3169	0.0000	97.1254

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.07	0.0142	8.4000e-004	0.0000	0.0352
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	96.495	19.5876	1.1576	0.0000	48.5275
Total		19.6018	1.1584	0.0000	48.5627

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
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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	57.9240	0.0000	0.0000	57.9240

11.2 Net New Trees

Species Class

	Number of Trees	Total CO2	CH4	N2O	CO2e
		MT			
Miscellaneous	71	50.2680	0.0000	0.0000	50.2680
Pine	12	7.6560	0.0000	0.0000	7.6560

Bakersfield U-Haul - Kern-San Joaquin County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Total		57.9240	0.0000	0.0000	57.9240
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Greenhouse Gas Emissions Assessment
U-Haul Moving & Storage of Bakersfield
Bakersfield, California



Expect More. Experience Better.

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April 2022

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LIST OF ABBREVIATED TERMS

AB	Assembly Bill
CARB	California Air Resource Board
CCR	California Code of Regulations
CalEEMod	California Emissions Estimator Model
CEQA	California Environmental Quality Act
CALGreen Code	California Green Building Standards Code
CPUC	California Public Utilities Commission
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent
CFC	Chlorofluorocarbon
CPP	Clean Power Plan
CCSP	Climate Change Scoping Plan
cy	cubic yard
EPA	Environmental Protection Agency
FCAA	Federal Clean Air Act
FR	Federal Register
GHG	greenhouse gas
HCFC	Hydrochlorofluorocarbon
HFC	Hydrofluorocarbon
LCFS	Low Carbon Fuel Standard
CH ₄	Methane
MMTCO ₂ e	million metric tons of carbon dioxide equivalent
MTCO ₂ e	million tons of carbon dioxide equivalent
NHTSA	National Highway Traffic Safety Administration
NF ₃	nitrogen trifluoride
N ₂ O	nitrous oxide
PFC	Perfluorocarbon
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
SB	Senate Bill
SJVAPCD	San Joaquin Valley Air Pollution Control District
Sf	square foot
SF ₆	sulfur hexafluoride
TAC	toxic air contaminants

1 INTRODUCTION

This report documents the results of a greenhouse gas (GHG) assessment completed for the Bakersfield U-Haul Project (“Project” or “proposed Project”). The purpose of this analysis is to evaluate the Project’s potential contribution to cumulative impacts environmental effects of climate change and whether the project would affect the State’s ability to achieve established GHG reduction goals.

1.1 Project Location

The Project site is located at 9407 South H Street in the City of Bakersfield, Kern County, California. The 11.2-acre project site is legally described as Assessor Parcel Number (APN) 514-060-05. The vacant site is generally bordered by vacant land, a medical clinic, senior center, and park-and-ride lot to the north; single-family residences with outbuildings and horse stables to the south; South H Street and a single-family residential development south of the roadway; and Highway 99 to the west. Regional vehicular access to the project site is provided from Highway 99 at Taft Highway to the south and Hosking Avenue to the north. Local access is currently provided from South H Street; refer to [Exhibit 1: Regional Vicinity Map](#) and [Exhibit 2: Site Vicinity](#).

1.2 Project Description

Site Development

The proposed Project would include three at-grade buildings (Buildings A, B, and C) with associated surface parking areas for employees and customers, as well as for-rent vehicles and large vehicle storage. It is anticipated that construction would take approximately 8 to 12 months.

Building A would be located in the northwest portion of the Project site. The 4-story, approximately 133,640 gross square feet (gsf) building would be an indoor, climate controlled self-storage facility with a rental office/showroom on the southwest corner of the building. A manager’s living unit would also be located within the building. All storage units would be accessed from within the building. No outdoor/drive-up storage units would be provided.

Building B would be located in the northeast portion of the Project site near South H Street. The 1-story, approximately 32,421 gsf building would be a “U-Box” container facility. U-Box is a portable moving and storage container that can be delivered to an off-site location for temporary storage, returned to the U-Haul facility for storage, or shipped to a designated location. No on-site access is provided to customers for stored U-Box containers. A truck loading ramp and dock door would be located on the east side of the building, near the southernmost driveway.

Building C would be located in the southern portion of the Project site. The 2-story, 32,421 gsf structure would be a mechanical shop building for the inspection and repair of rental equipment and vehicles. The building would include an employee lounge and lockers. The second story would include three office spaces.

Vehicle storage space would be provided for recreational vehicles, trailers, and passenger vehicles. The uncovered parking spaces are proposed along the western Project boundary. Approximately 20 spaces would be provided. This area could also accommodate rental vehicles and equipment. Moving truck and

trailer rentals would be parked on the Project site. Two shunting areas are proposed on the Project site. One area would be located between Building A and Building B. The other shunting area would be located in the central portion of the Project north of Building C. Shunting areas are staging areas for pick up and drop off on rental vehicles and equipment. Depending on the size of the vehicles and equipment, which can range in length from approximately 10 to 30 feet, these areas can accommodate approximately 30 to 50 vehicles.

The proposed Project requires a General Plan land use amendment and a zone change. The existing Bakersfield General Plan Land Use Element land use designation for the Project site is Suburban Residential. The General Plan notes that this designation assumes four or fewer dwelling units per acre. The proposed General Plan land use designation is Light Industrial. This designation permits industrial uses at up to six stories with a floor area ratio (FAR) of 1.

The existing zoning designation on the site is Agriculture and the proposed designation is M-1, Light Manufacturing. The maximum building height in the M-1 zone is 6 stories not exceeding 75 feet.

Access and Parking

There is currently no vehicular access to the Project site or sidewalks along the South H Street frontage. No street lighting is provided on South H Street between the medical clinic to the north and Taft Highway to the south. South H Street is designated as an Arterial in the City of Bakersfield General Plan Circulation Element. The Project requires a 55-foot setback right-of-way dedication along the Project site frontage on South H Street for the future widening of the roadway by the City of Bakersfield. Ingress and egress would be provided from three, full access unsignalized driveway along South H Street. The northernmost driveway would be closest to Building A and Building B. The two additional driveways would be located near the center of the South H Street Project site frontage and adjacent to the southern boundary of the Project site.

The anticipated hours of operation would be Monday through Thursday and Saturday from 7 AM to 7 PM, Friday from 7 AM to 8 PM, and Sunday from 9 AM to 5 PM. Outside of these hours, the gates would be locked. Access to the Building A self-storage units is available 24 hours each day with the customer's gate code into the Project site and the building. The Maintenance facility (Building C) would operate Monday through Friday from 7 AM to 5 PM.

Ten parking spaces would be provided for Building A. These spaces would be accessible to customers and the on-site facility manager. Employee parking would be provided proximate to Building C.

With respect to non-vehicular access, a proposed Class 1, Multi-Use Path and a Class 3, Bike Route are proposed by the City of Bakersfield on South H Street between Panama Lane to the north and Taft Highway to the south (source: City of Bakersfield Bicycle Transportation Plan). There is an existing southbound bus stop north of the site in front of the Greenfield Senior Center.

Landscaping

Based on the City of Bakersfield Municipal Code Section 17.61.030, a 15-foot-wide landscape area would be required along South H Street, as measured from the right-of-way line. Along street frontages, trees are required at a ratio of 1 tree per 20 lineal feet but can be clustered. Trees are required in parking areas

and adjacent to buildings fronting onto parking areas. Landscaping would be provided on approximately 15 percent of the Project site (approximately 1.7 acres of the 11.2-acre site).

Along South H Street, the landscape area, inclusive of the setback dedication area, is proposed to include a mix of California sycamore, western rosebud, and Italian stone pine trees, shrubs including a mix of grasses, rosemary and pittosporum, and groundcovers including creeping juniper and trailing Myoporum. The northern and southern site boundaries would be planted with rosemary shrubs. The western boundary of the site adjacent to Highway 99 is proposed to be landscaped with California sycamore and western rosebud trees, shrubs, and groundcovers. Landscaping would conform to the Model Water Efficient Landscaping Ordinance as adopted in California Code of Regulations, Title 23, Chapter 2.7 as adopted by the State of California.

Construction and Grading

The applicant anticipates that construction would take approximately 8 to 12 months, in the following sequence:

- Site preparation.
- Grading – 100 cubic yards of cut material and 600 cubic yards of fill material, with 500 cubic yards of import. The Project would install all on-site infrastructure (i.e., storm drain, water, wastewater, dry utilities, and street improvements) during grading.
- Building construction.
- Paving and landscaping.

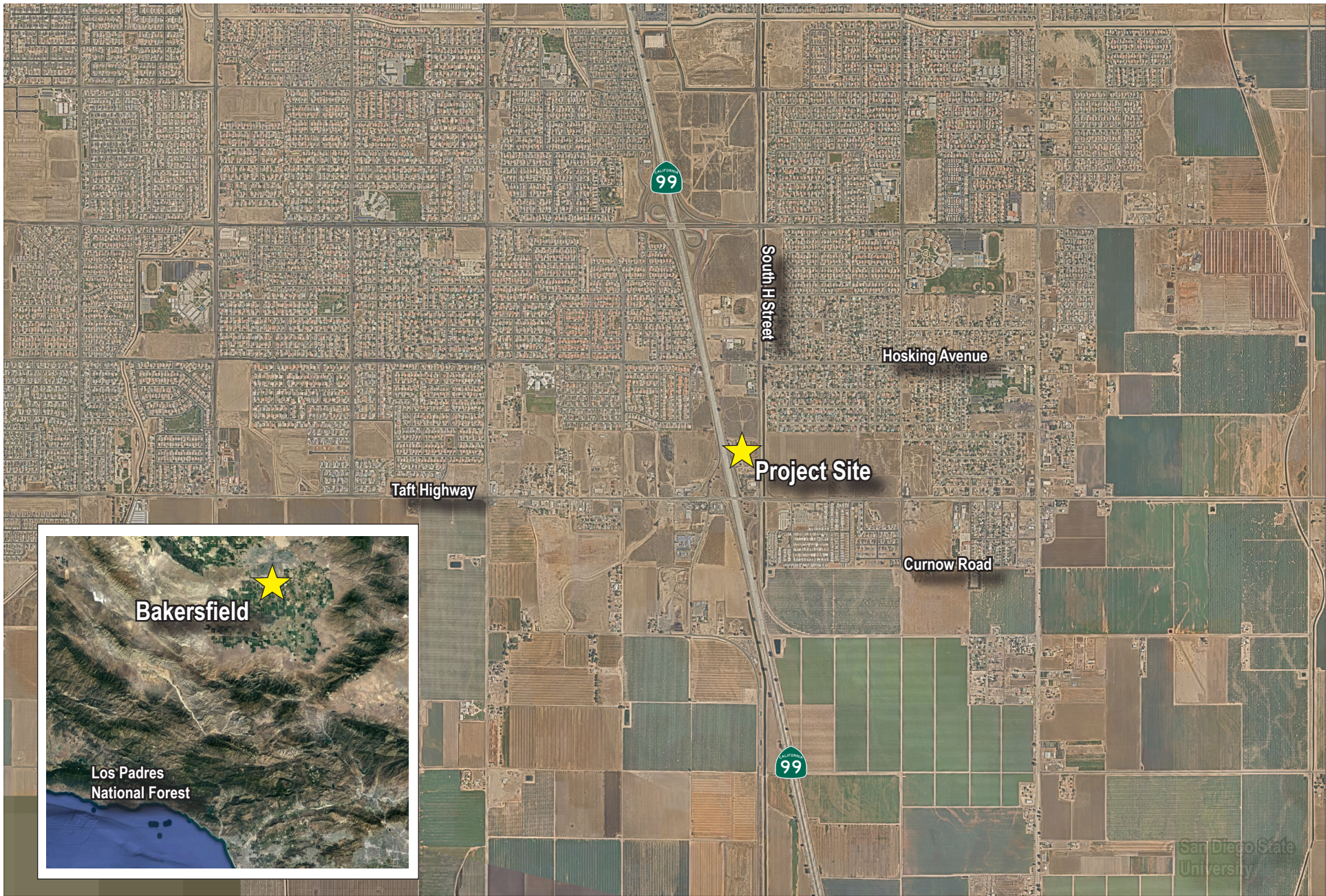


EXHIBIT 1: Regional Vicinity Map
U-Haul Moving & Storage of Bakersfield

NOT TO SCALE



Kimley & Horn



EXHIBIT 2: Site Vicinity
U-Haul Moving & Storage of Bakersfield

NOT TO SCALE 

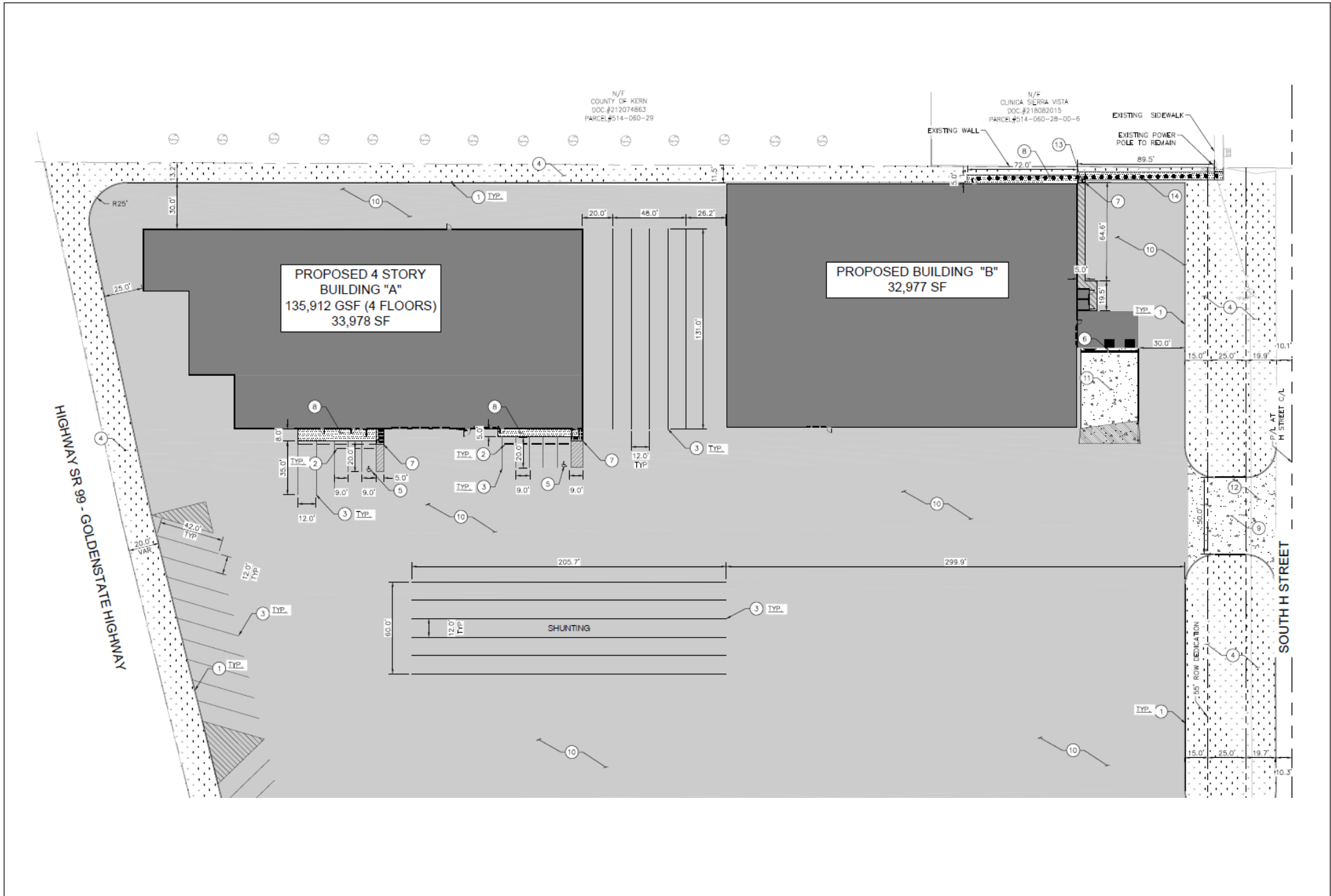


EXHIBIT 3a: Site Plan
 U-Haul Moving & Storage of Bakersfield

NOT TO SCALE



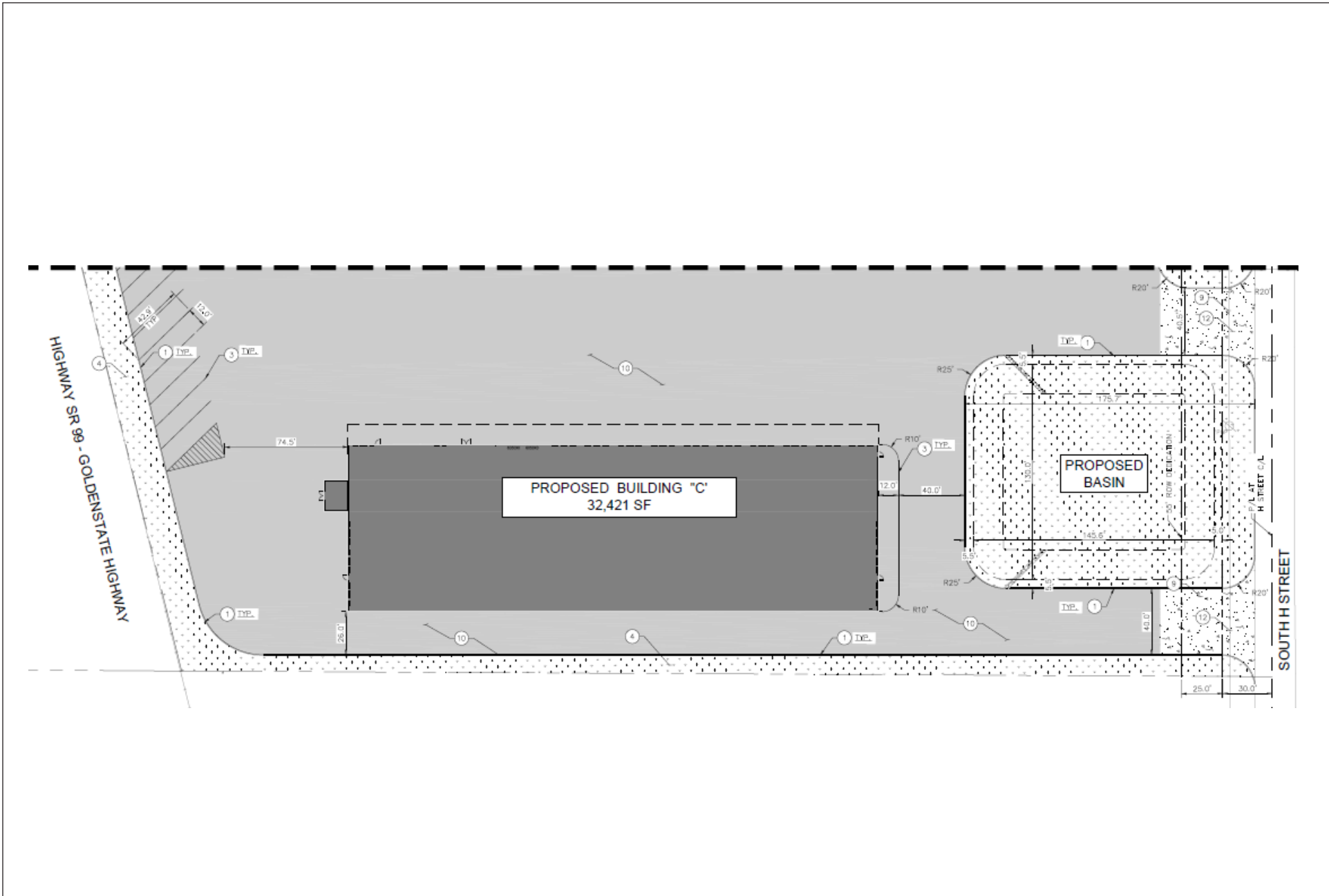


EXHIBIT 3b: Site Plan
 U-Haul Moving & Storage of Bakersfield

NOT TO SCALE



2 ENVIRONMENTAL SETTING

2.1 Greenhouse Gases and Climate Change

Certain gases in the earth's atmosphere classified as GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. A portion of the radiation is absorbed by the earth's surface and a smaller portion of this radiation is reflected back toward space. This absorbed radiation is then emitted from the earth as low-frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. Because the earth has a much lower temperature than the sun, it emits lower-frequency radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth.

The primary GHGs contributing to the greenhouse effect are carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O). Fluorinated gases also make up a small fraction of the GHGs that contribute to climate change. Examples of fluorinated gases include chlorofluorocarbons (CFCs), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆), and nitrogen trifluoride (NF₃); however, it is noted that these gases are not associated with typical land use development. Human-caused emissions of GHGs exceeding natural ambient concentrations are believed to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the Earth's climate, known as global climate change or global warming.

GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants (TACs), which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about one day), GHGs have long atmospheric lifetimes (one to several thousand years). GHGs persist in the atmosphere for long enough time periods to be dispersed around the globe. Although the exact lifetime of a GHG molecule is dependent on multiple variables and cannot be pinpointed, more CO₂ is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, or other forms of carbon sequestration. Of the total annual human-caused CO₂ emissions, approximately 55 percent is sequestered through ocean and land uptakes every year, averaged over the last 50 years, whereas the remaining 45 percent of human-caused CO₂ emissions remains stored in the atmosphere.¹ [Table 1: Description of Greenhouse Gases](#) describes the primary GHGs attributed to global climate change, including their physical properties.

¹ Intergovernmental Panel on Climate Change, *Carbon and Other Biogeochemical Cycles*. In: *Climate Change 2013: The Physical Science Basis, Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, 2013. http://www.climatechange2013.org/images/report/WG1AR5_ALL_FINAL.pdf.

Greenhouse Gas	Description
Carbon Dioxide (CO ₂)	CO ₂ is a colorless, odorless gas that is emitted naturally and through human activities. Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood. The largest source of CO ₂ emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, and industrial facilities. The atmospheric lifetime of CO ₂ is variable because it is readily exchanged in the atmosphere. CO ₂ is the most widely emitted GHG and is the reference gas (Global Warming Potential of 1) for determining Global Warming Potentials for other GHGs.
Nitrous Oxide (N ₂ O)	N ₂ O is largely attributable to agricultural practices and soil management. Primary human-related sources of N ₂ O include agricultural soil management, sewage treatment, combustion of fossil fuels, and adipic and nitric acid production. N ₂ O is produced from biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of N ₂ O is approximately 120 years. The Global Warming Potential of N ₂ O is 298.
Methane (CH ₄)	CH ₄ , a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices and landfills. Methane is the major component of natural gas, about 87 percent by volume. Human-related sources include fossil fuel production, animal husbandry, rice cultivation, biomass burning, and waste management. Natural sources of CH ₄ include wetlands, gas hydrates, termites, oceans, freshwater bodies, non-wetland soils, and wildfires. The atmospheric lifetime of CH ₄ is about 12 years and the Global Warming Potential is 25.
Hydrofluorocarbons (HFCs)	HFCs are typically used as refrigerants for both stationary refrigeration and mobile air conditioning. The use of HFCs for cooling and foam blowing is increasing, as the continued phase out of CFCs and HCFCs gains momentum. The 100-year Global Warming Potential of HFCs range from 124 for HFC-152 to 14,800 for HFC-23.
Perfluorocarbons (PFCs)	PFCs have stable molecular structures and only break down by ultraviolet rays about 60 kilometers above Earth's surface. Because of this, they have long lifetimes, between 10,000 and 50,000 years. Two main sources of PFCs are primary aluminum production and semiconductor manufacturing. Global Warming Potentials range from 6,500 to 9,200.
Chlorofluorocarbons (CFCs)	CFCs are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. They are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). CFCs were synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. The Montreal Protocol on Substances that Deplete the Ozone Layer prohibited their production in 1987. Global Warming Potentials for CFCs range from 3,800 to 14,400.
Sulfur Hexafluoride (SF ₆)	SF ₆ is an inorganic, odorless, colorless, and nontoxic, nonflammable gas. It has a lifetime of 3,200 years. This gas is manmade and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas. The Global Warming Potential of SF ₆ is 23,900.
Hydrochlorofluorocarbons (HCFCs)	HCFCs are solvents, similar in use and chemical composition to CFCs. The main uses of HCFCs are for refrigerant products and air conditioning systems. As part of the Montreal Protocol, HCFCs are subject to a consumption cap and gradual phase out. The United States is scheduled to achieve a 100 percent reduction to the cap by 2030. The 100-year Global Warming Potentials of HCFCs range from 90 for HCFC-123 to 1,800 for HCFC-142b.
Nitrogen Trifluoride (NF ₃)	NF ₃ was added to Health and Safety Code section 38505(g)(7) as a GHG of concern. This gas is used in electronics manufacture for semiconductors and liquid crystal displays. It has a high global warming potential of 17,200.
Source: Compiled from U.S. EPA, <i>Overview of Greenhouse Gases</i> , April 11, 2018 (https://www.epa.gov/ghgemissions/overview-greenhouse-gases); U.S. EPA, <i>Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2016</i> , 2018; Intergovernmental Panel on Climate Change, <i>Climate Change 2007: The Physical Science Basis</i> , 2007; National Research Council, <i>Advancing the Science of Climate Change</i> , 2010; U.S. EPA, <i>Methane and Nitrous Oxide Emission from Natural Sources</i> , April 2010.	

3 REGULATORY SETTING

3.1 Federal

To date, national standards have not been established for nationwide GHG reduction targets, nor have any regulations or legislation been enacted specifically to address climate change and GHG emissions reduction at the project level. Various efforts have been promulgated at the federal level to improve fuel economy and energy efficiency to address climate change and its associated effects.

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 (December 2007), among other key measures, requires the following, which would aid in the reduction of national GHG emissions:

- Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022.
- Set a target of 35 miles per gallon for the combined fleet of cars and light trucks by model year 2020 and direct the National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.
- Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

U.S. Environmental Protection Agency Endangerment Finding

The U.S. Environmental Protection Agency (EPA) authority to regulate GHG emissions stems from the U.S. Supreme Court decision in *Massachusetts v. EPA* (2007). The Supreme Court ruled that GHGs meet the definition of air pollutants under the existing Federal Clean Air Act (FCAA) and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the Court's ruling, the EPA finalized an endangerment finding in December 2009. Based on scientific evidence it found that six GHGs (CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆) constitute a threat to public health and welfare. Thus, it is the Supreme Court's interpretation of the existing FCAA and the EPA's assessment of the scientific evidence that form the basis for the EPA's regulatory actions.

Federal Vehicle Standards

In response to the U.S. Supreme Court ruling discussed above, Executive Order 13432 was issued in 2007 directing the EPA, the Department of Transportation, and the Department of Energy to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. In 2009, the NHTSA issued a final rule regulating fuel efficiency and GHG emissions from cars and light-duty trucks for model year 2011, and in 2010, the EPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012–2016.

In 2010, an Executive Memorandum was issued directing the Department of Transportation, Department of Energy, EPA, and NHTSA to establish additional standards regarding fuel efficiency and GHG reduction,

clean fuels, and advanced vehicle infrastructure. In response to this directive, the EPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017–2025 light-duty vehicles. The proposed standards projected to achieve 163 grams per mile of CO₂ in model year 2025, on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon if this level were achieved solely through fuel efficiency.

In 2018, the President and the EPA stated their intent to halt various federal regulatory activities to reduce GHG emission, including the phase two program. California and other states have stated their intent to challenge federal actions that would delay or eliminate GHG reduction measures and have committed to cooperating with other countries to implement global climate change initiatives. On September 27, 2019, the EPA and the NHTSA published the “Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program.” (84 Fed. Reg. 51,310 (Sept. 27, 2019.)) The Part One Rule revokes California’s authority to set its own GHG emissions standards and set zero-emission vehicle mandates in California. On March 31, 2020, the EPA and NHTSA finalized rulemaking for SAFE Part Two sets CO₂ emissions standards and corporate average fuel economy (CAFE) standards for passenger vehicles and light duty trucks, covering model years 2021-2026. The EPA is currently reconsidering the SAFE rule pursuant to Presidential Executive Order 13390 issued on January 20, 2021 as discussed below.

Presidential Executive Orders 13990 and 14008

On January 20, 2021, President Biden issued Executive Order 13990, "Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis". Executive Order 13990 directs Federal agencies to immediately review and take action to address the promulgation of Federal regulations and other actions that conflict with these important national objectives and to immediately commence work to confront the climate crisis. Executive Order 13990 directs the Council on Environmental Quality (CEQ) to review CEQ’s 2020 regulations implementing the procedural requirements of the National Environmental Policy Act (NEPA) and identify necessary changes or actions to meet the objectives of Executive Order 13990.

Executive Order 13390 also directs the EPA to consider whether to propose suspending, revising, or rescinding the standards previously revised under the “The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks,” promulgated in April 2020.

On January 27, 2021, President Biden signed Executive Order 14008, "Tackling the Climate Crisis at Home and Abroad," to declare the Administration’s policy to move quickly to build resilience, both at home and abroad, against the impacts of climate change that are already manifest and will continue to intensify according to current trajectories. In line with these Executive Order directives, CEQ is reviewing the 2020 NEPA regulations and plans to publish a notice of proposed rulemaking (NPRM) to identify necessary revisions in order to comply with the law; meet the environmental, climate change, and environmental justice objectives of Executive Orders 13990 and 14008; ensure full and fair public involvement in the NEPA process; provide regulatory certainty to stakeholders; and promote better decision making consistent with NEPA’s statutory requirements. This phase 1 rulemaking will propose a narrow set of changes to the 2020 NEPA regulations to address these goals.

3.2 State of California

California Air Resources Board

The California Air Resources Board (CARB) is responsible for the coordination and oversight of State and local air pollution control programs in California. Various statewide and local initiatives to reduce California's contribution to GHG emissions have raised awareness about climate change and its potential for severe long-term adverse environmental, social, and economic effects. California is a significant emitter of CO₂ equivalents (CO₂e) in the world and produced 459 million gross metric tons of CO₂e in 2013. In the State, the transportation sector is the largest emitter of GHGs, followed by industrial operations such as manufacturing and oil and gas extraction.

The State of California legislature has enacted a series of bills that constitute the most aggressive program to reduce GHGs of any state in the nation. Some legislation, such as the landmark Assembly Bill (AB) 32, *California Global Warming Solutions Act of 2006*, was specifically enacted to address GHG emissions. Other legislation, such as Title 24 building efficiency standards and Title 20 appliance energy standards, were originally adopted for other purposes such as energy and water conservation, but also provide GHG reductions. This section describes the major provisions of the legislation.

Assembly Bill 32 (California Global Warming Solutions Act of 2006)

AB 32 instructs the CARB to develop and enforce regulations for the reporting and verification of statewide GHG emissions. AB 32 also directed CARB to set a GHG emissions limit based on 1990 levels, to be achieved by 2020. It set a timeline for adopting a scoping plan for achieving GHG reductions in a technologically and economically feasible manner.

CARB Scoping Plan

CARB adopted the Scoping Plan to achieve the goals of AB 32. The Scoping Plan establishes an overall framework for the measures that would be adopted to reduce California's GHG emissions. CARB determined that achieving the 1990 emissions level would require a reduction of GHG emissions of approximately 29 percent below what would otherwise occur in 2020 in the absence of new laws and regulations (referred to as "business-as-usual").² The Scoping Plan evaluates opportunities for sector-specific reductions, integrates early actions and additional GHG reduction measures by both CARB and the State's Climate Action Team, identifies additional measures to be pursued as regulations, and outlines the adopted role of a cap-and-trade program.³ Additional development of these measures and adoption of the appropriate regulations occurred through the end of 2013. Key elements of the Scoping Plan include:

² CARB defines business-as-usual (BAU) in its Scoping Plan as emissions levels that would occur if California continued to grow and add new GHG emissions but did not adopt any measures to reduce emissions. Projections for each emission-generating sector were compiled and used to estimate emissions for 2020 based on 2002–2004 emissions intensities. Under CARB's definition of BAU, new growth is assumed to have the same carbon intensities as was typical from 2002 through 2004.

³ The Climate Action Team, led by the secretary of the California Environmental Protection Agency, is a group of State agency secretaries and heads of agencies, boards, and departments. Team members work to coordinate statewide efforts to implement global warming emissions reduction programs and the State's Climate Adaptation Strategy.

- Expanding and strengthening existing energy efficiency programs, as well as building and appliance standards.
- Achieving a statewide renewables energy mix of 33 percent by 2020.
- Developing a California cap-and-trade program that links with other programs to create a regional market system and caps sources contributing 85 percent of California's GHG emissions (adopted in 2011).
- Establishing targets for transportation related GHG emissions for regions throughout California and pursuing policies and incentives to achieve those targets (several sustainable community strategies have been adopted).
- Adopting and implementing measures pursuant to existing State laws and policies, including California's clean car standards, heavy-duty truck measures, the Low Carbon Fuel Standard (amendments to the Pavley Standard adopted 2009; Advanced Clean Car standard adopted 2012), goods movement measures, and the Low Carbon Fuel Standard (adopted 2009).
- Creating targeted fees, including a public goods charge on water use, fees on gasses with high global warming potential, and a fee to fund the administrative costs of the State of California's long-term commitment to AB 32 implementation.
- The California Sustainable Freight Action Plan was developed in 2016 and provides a vision for California's transition to a more efficient, more economically competitive, and less polluting freight transport system. This transition of California's freight transport system is essential to supporting the State's economic development in coming decades while reducing pollution.
- CARB's Mobile Source Strategy demonstrates how the State can simultaneously meet air quality standards, achieve GHG emission reduction targets, decrease health risk from transportation emissions, and reduce petroleum consumption over the next fifteen years. The mobile Source Strategy includes increasing ZEV buses and trucks.

In 2012, CARB released revised estimates of the expected 2020 emissions reductions. The revised analysis relied on emissions projections updated in light of current economic forecasts that accounted for the economic downturn since 2008, reduction measures already approved and put in place relating to future fuel and energy demand, and other factors. This update reduced the projected 2020 emissions from 596 million metric tons of CO₂e (MMTCO₂e) to 545 MMTCO₂e. The reduction in forecasted 2020 emissions means that the revised business-as-usual reduction necessary to achieve AB 32's goal of reaching 1990 levels by 2020 is now 21.7 percent, down from 29 percent. CARB also provided a lower 2020 inventory forecast that incorporated State-led GHG emissions reduction measures already in place. When this lower forecast is considered, the necessary reduction from business-as-usual needed to achieve the goals of AB 32 is approximately 16 percent.

CARB adopted the first major update to the Scoping Plan on May 22, 2014. The updated Scoping Plan summarizes the most recent science related to climate change, including anticipated impacts to California and the levels of GHG emissions reductions necessary to likely avoid risking irreparable damage. It identifies the actions California has already taken to reduce GHG emissions and focuses on areas where further reductions could be achieved to help meet the 2020 target established by AB 32.

In 2016, the Legislature passed Senate Bill (SB) 32, which codifies a 2030 GHG emissions reduction target of 40 percent below 1990 levels. With SB 32, the Legislature passed companion legislation, AB 197, which

provides additional direction for developing the Scoping Plan. On December 14, 2017 CARB adopted a second update to the Scoping Plan.⁴ The 2017 Scoping Plan details how the State will reduce GHG emissions to meet the 2030 target set by Executive Order B-30-15 and codified by SB 32. Other objectives listed in the 2017 Scoping plan are to provide direct GHG emissions reductions; support climate investment in disadvantaged communities; and support the Clean Power Plan and other Federal actions.

In June 2021 CARB initiated the development of the 2022 update to the AB32 Climate Change Scoping Plan, which is due in 2022. The 2022 Scoping Plan update will assess progress towards achieving the SB32 2030 target and lay out a path to achieve carbon neutrality no later than 2045. Building decarbonization is important to reduce emissions to achieve California's path to carbon neutrality and to meet air quality standards.

Senate Bill 32 (California Global Warming Solutions Act of 2006: Emissions Limit)

Signed into law in September 2016, SB 32 codifies the 2030 GHG reduction target in Executive Order B-30-15 (40 percent below 1990 levels by 2030). The bill authorizes CARB to adopt an interim GHG emissions level target to be achieved by 2030. CARB also must adopt rules and regulations in an open public process to achieve the maximum, technologically feasible, and cost-effective GHG reductions.

SB 375 (The Sustainable Communities and Climate Protection Act of 2008)

Signed into law on September 30, 2008, SB 375 provides a process to coordinate land use planning, regional transportation plans, and funding priorities to help California meet the GHG reduction goals established by AB 32. SB 375 requires metropolitan planning organizations to include sustainable community strategies in their regional transportation plans for reducing GHG emissions, aligns planning for transportation and housing, and creates specified incentives for the implementation of the strategies.

AB 1493 (Pavley Regulations and Fuel Efficiency Standards)

AB 1493, enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. Implementation of the regulation was delayed by lawsuits filed by automakers and by the EPA's denial of an implementation waiver. The EPA subsequently granted the requested waiver in 2009, which was upheld by the U.S. District Court for the District of Columbia in 2011. The regulations establish one set of emission standards for model years 2009–2016 and a second set of emissions standards for model years 2017 to 2025. By 2025, when all rules will be fully implemented, new automobiles will emit 34 percent fewer CO₂e emissions and 75 percent fewer smog-forming emissions. In 2019 the EPA published the SAFE Rule that revoked California's waiver. However, the EPA is currently reconsidering the SAFE rule pursuant to Presidential Executive Order 13390.

SB 1368 (Emission Performance Standards)

SB 1368 is the companion bill of AB 32, which directs the California Public Utilities Commission (CPUC) to adopt a performance standard for GHG emissions for the future power purchases of California utilities. SB 1368 limits carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than 5 years from resources that exceed the emissions of a

⁴ California Air Resources Board, *California's 2017 Climate Change Scoping Plan*, https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf, accessed April 13, 2022.

relatively clean, combined cycle natural gas power plant. The new law effectively prevents California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the State. The CPUC adopted the regulations required by SB 1368 on August 29, 2007. The regulations implementing SB 1368 establish a standard for baseload generation owned by, or under long-term contract to publicly owned utilities, for 1,100 pounds of CO₂ per megawatt-hour.

SB 1078 and SBX1-2 (Renewable Electricity Standards)

SB 1078 requires California to generate 20 percent of its electricity from renewable energy by 2017. SB 107 changed the due date to 2010 instead of 2017. On November 17, 2008, Governor Arnold Schwarzenegger signed Executive Order S-14-08, which established a Renewable Portfolio Standard target for California requiring that all retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. Executive Order S-21-09 also directed CARB to adopt a regulation by July 31, 2010, requiring the State's load serving entities to meet a 33 percent renewable energy target by 2020. CARB approved the Renewable Electricity Standard on September 23, 2010 by Resolution 10-23. SBX1-2, which codified the 33 percent by 2020 goal.

SB 350 (Clean Energy and Pollution Reduction Act of 2015)

Signed into law on October 7, 2015, SB 350 implements the goals of Executive Order B-30-15. The objectives of SB 350 are to increase the procurement of electricity from renewable sources from 33 percent to 50 percent (with interim targets of 40 percent by 2024, and 25 percent by 2027) and to double the energy efficiency savings in electricity and natural gas end uses of retail customers through energy efficiency and conservation. SB 350 also reorganizes the Independent System Operator to develop more regional electricity transmission markets and improve accessibility in these markets, which will facilitate the growth of renewable energy markets in the western United States.

AB 398 (Market-Based Compliance Mechanisms)

Signed on July 25, 2017, AB 398 extended the duration of the Cap-and-Trade program from 2020 to 2030. AB 398 required CARB to update the Scoping Plan and for all GHG rules and regulations adopted by the State. It also designated CARB as the statewide regulatory body responsible for ensuring that California meets its statewide carbon pollution reduction targets, while retaining local air districts' responsibility and authority to curb toxic air contaminants and criteria pollutants from local sources that severely impact public health. AB 398 also decreased free carbon allowances over 40 percent by 2030 and prioritized Cap-and-Trade spending to various programs including reducing diesel emissions in impacted communities.

SB 150 (Regional Transportation Plans)

Signed on October 10, 2017, SB 150 aligns local and regional GHG reduction targets with State targets (i.e., 40 percent below their 1990 levels by 2030). SB 150 creates a process to include communities in discussions on how to monitor their regions' progress on meeting these goals. The bill also requires the CARB to regularly report on that progress, as well as on the successes and the challenges regions experience associated with achieving their targets. SB 150 provides for accounting of climate change efforts and GHG reductions and identify effective reduction strategies.

SB 100 (California Renewables Portfolio Standard Program: Emissions of Greenhouse Gases)

Signed into Law in September 2018, SB 100 increased California’s renewable electricity portfolio from 50 to 60 percent by 2030. SB 100 also established a further goal to have an electric grid that is entirely powered by clean energy by 2045.

CARB Advanced Clean Truck Regulation

CARB adopted the Advanced Clean Truck Regulation in June 2020 requiring truck manufacturers to transition from diesel trucks and vans to electric zero-emission trucks beginning in 2024. By 2045, every new truck sold in California is required to be zero-emission. This rule directly addresses disproportionate risks and health and pollution burdens and puts California on the path for an all zero-emission short-haul drayage fleet in ports and railyards by 2035, and zero-emission “last-mile” delivery trucks and vans by 2040. The Advanced Clean Truck Regulation accelerates the transition of zero-emission medium-and heavy-duty vehicles from Class 2b to Class 8. The regulation has two components including a manufacturer sales requirement, and a reporting requirement:

- **Zero-Emission Truck Sales:** Manufacturers who certify Class 2b through 8 chassis or complete vehicles with combustion engines are required to sell zero-emission trucks as an increasing percentage of their annual California sales from 2024 to 2035. By 2035, zero-emission truck/chassis sales need to be 55 percent of Class 2b – 3 truck sales, 75 percent of Class 4 – 8 straight truck sales, and 40 percent of truck tractor sales.
- **Company and Fleet Reporting:** Large employers including retailers, manufacturers, brokers and others would be required to report information about shipments and shuttle services. Fleet owners, with 50 or more trucks, would be required to report about their existing fleet operations. This information would help identify future strategies to ensure that fleets purchase available zero-emission trucks and place them in service where suitable to meet their needs.

Executive Orders Related to GHG Emissions

California’s Executive Branch has taken several actions to reduce GHGs using executive orders. Although not regulatory, they set the tone for the State and guide the actions of state agencies.

Executive Order S-3-05. Executive Order S-3-05 was issued on June 1, 2005, which established the following GHG emissions reduction targets:

- By 2010, reduce GHG emissions to 2000 levels.
- By 2020, reduce GHG emissions to 1990 levels.
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

The 2050 reduction goal represents what some scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was established to be a mid-term target. Because this is an executive order, the goals are not legally enforceable for local governments or the private sector.

Executive Order S-01-07. Issued on January 18, 2007, Executive Order S 01-07 mandates that a statewide goal shall be established to reduce the carbon intensity of California’s transportation fuels by at least 10 percent by 2020. The executive order established a Low Carbon Fuel Standard (LCFS) and directed the Secretary for Environmental Protection to coordinate the actions of the California Energy Commission, CARB, the University of California, and other agencies to develop and propose protocols for measuring the “life-cycle carbon intensity” of transportation fuels. CARB adopted the LCFS on April 23, 2009.

Executive Order S-13-08. Issued on November 14, 2008, Executive Order S-13-08 facilitated the California Natural Resources Agency development of the 2009 California Climate Adaptation Strategy. Objectives include analyzing risks of climate change in California, identifying and exploring strategies to adapt to climate change, and specifying a direction for future research.

Executive Order S-14-08. Issued on November 17, 2008, Executive Order S-14-08 expands the State’s Renewable Energy Standard to 33 percent renewable power by 2020. Additionally, Executive Order S-21-09 (signed on September 15, 2009) directs CARB to adopt regulations requiring 33 percent of electricity sold in the State come from renewable energy by 2020. CARB adopted the Renewable Electricity Standard on September 23, 2010, which requires 33 percent renewable energy by 2020 for most publicly owned electricity retailers.

Executive Order S-21-09. Issued on July 17, 2009, Executive Order S-21-09 directs CARB to adopt regulations to increase California's RPS to 33 percent by 2020. This builds upon SB 1078 (2002), which established the California RPS program, requiring 20 percent renewable energy by 2017, and SB 107 (2006), which advanced the 20 percent deadline to 2010, a goal which was expanded to 33 percent by 2020 in the 2005 Energy Action Plan II.

Executive Order B-30-15. Issued on April 29, 2015, Executive Order B-30-15 established a California GHG reduction target of 40 percent below 1990 levels by 2030 and directs CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of CO₂e (MMTCO₂e). The 2030 target acts as an interim goal on the way to achieving reductions of 80 percent below 1990 levels by 2050, a goal set by Executive Order S-3-05. The executive order also requires the State’s climate adaptation plan to be updated every three years and for the State to continue its climate change research program, among other provisions. With the enactment of SB 32 in 2016, the Legislature codified the goal of reducing GHG emissions by 2030 to 40 percent below 1990 levels.

Executive Order B-55-18. Issued on September 10, 2018, Executive Order B-55-18 establishes a goal to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter. This goal is in addition to the existing statewide targets of reducing GHG emissions. The executive order requires CARB to work with relevant state agencies to develop a framework for implementing this goal. It also requires CARB to update the Scoping Plan to identify and recommend measures to achieve carbon neutrality. The executive order also requires state agencies to develop sequestration targets in the Natural and Working Lands Climate Change Implementation Plan.

Executive Order N-79-20. Signed in September 2020, Executive Order N-79-20 establishes as a goal that where feasible, all new passenger cars and trucks, as well as all drayage/cargo trucks and off-road vehicles and equipment, sold in California, will be zero-emission by 2035. The executive order sets a similar goal requiring that all medium and heavy-duty vehicles will be zero-emission by 2045 where feasible. It also directs CARB to develop and propose rulemaking for passenger vehicles and trucks, medium-and heavy-duty fleets where feasible, drayage trucks, and off-road vehicles and equipment “requiring increasing

volumes” of new zero emission vehicles (ZEVs) “towards the target of 100 percent.” The executive order directs the California Environmental Protection Agency, the California Geologic Energy Management Division (CalGEM), and the California Natural Resources Agency to transition and repurpose oil production facilities with a goal toward meeting carbon neutrality by 2045. Executive Order N-79-20 builds upon the CARB Advanced Clean Trucks regulation, which was adopted by CARB in July 2020.

California Regulations and Building Codes

California has a long history of adopting regulations to improve energy efficiency in new and remodeled buildings. These regulations have kept California’s energy consumption relatively flat even with rapid population growth.

Title 20 Appliance Efficiency Regulations. The appliance efficiency regulations (California Code of Regulations [CCR] Title 20, Sections 1601-1608) include standards for new appliances. Twenty-three categories of appliances are included in the scope of these regulations. These standards include minimum levels of operating efficiency, and other cost-effective measures, to promote the use of energy- and water-efficient appliances.

Title 24 Building Energy Efficiency Standards. California’s Energy Efficiency Standards for Residential and Nonresidential Buildings (CCR Title 24, Part 6) was first adopted in 1978 in response to a legislative mandate to reduce California’s energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions. The 2016 Building Energy Efficiency Standards approved on January 19, 2016 went into effect on January 1, 2017. The 2019 Building Energy Efficiency Standards were adopted on May 9, 2018 and went into effect on January 1, 2020. Under the 2019 standards, homes will use about 53 percent less energy and nonresidential buildings will use about 30 percent less energy than buildings under the 2016 standards. The California Energy Commission (CEC) updates the Energy Code every three years. On August 11, 2021, the CEC adopted the 2022 Energy Code. In December 2021 the 2022 Energy Code was approved by the California Building Standards Commission for inclusion into the California Building Standards Code. The 2022 Energy Code includes encouraging efficient electric heat pumps, establishes electric-ready requirements for new homes, expands solar photovoltaic and battery storage standards, strengthens ventilation standards. Buildings whose permit applications are applied for on or after January 1, 2023, must comply with the 2022 Energy Code.

Title 24 California Green Building Standards Code. The California Green Building Standards Code (CCR Title 24, Part 11 code) commonly referred to as the CALGreen Code, is a statewide mandatory construction code developed and adopted by the California Building Standards Commission and the Department of Housing and Community Development. The CALGreen standards require new residential and commercial buildings to comply with mandatory measures under the topics of planning and design, energy efficiency, water efficiency/conservation, material conservation and resource efficiency, and environmental quality. CALGreen also provides voluntary tiers and measures that local governments may adopt that encourage or require additional measures in the five green building topics. The most recent update to the CALGreen Code went into effect January 1, 2017. Updates to the 2016 CALGreen Code took effect on January 1, 2020 (2019 CALGreen). The 2019 CALGreen standards will continue to improve upon the existing standards for new construction of, and additions and alterations to, residential and nonresidential buildings. In December 2021, a 2022 CALGreen update was approved which will go into effect January 1, 2023. The 2022 CALGreen includes changes to model code language that serve as recommendations,

examples, and templates for local governments to use in considering above-code ordinances and apply to residential and nonresidential buildings. The 2022 CALGreen also provides above-code measures a builder could voluntarily use to comply with and exceed the 2022 Energy Code requirements.

3.3 Regional

San Joaquin Valley Air Pollution Control District Thresholds

The San Joaquin Valley Air Pollution Control District (SJVAPCD) has adopted quantitative significance thresholds for GHGs. In August 2008, the SJVAPCD's Governing Board adopted the Climate Change Action Plan (CCAP). The CCAP directed the District Air Pollution Control Officer to develop guidance to assist Lead Agencies, project proponents, permit applications, and interested parties in assessing and reducing the impacts of project specific GHG emissions on global climate change. On December 17, 2009, the SJVAPCD adopted the *Guidance for Valley Land-Use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA* (SJVAPCD GHG Guidance Document) and policy on addressing GHG emission impacts for stationary source projects under CEQA when serving as the Lead Agency. The guidance and policy rely on the use of performance-based standards, known as Best Performance Standards (BPS) to assess significance of project specific GHG emissions on climate change during the environmental review process, as required by CEQA. These documents adopted in December 2009 continue to be the relevant policies to address GHG emissions under CEQA.

Use of BPS is a method of streamlining CEQA process of determining significance and is not a required emission reduction measure. Projects implementing BPS would be determined to have a less than cumulatively significant impact. Otherwise, demonstration of a 29 percent reduction in GHG emissions, from business as usual (BAU), is required to determine that a project would have a less than cumulatively significant impact. The guidance does not limit a lead agency's authority in establishing its own process and guidance for determining significance of project related impacts on global climate change.

By enacting SB 97 in 2007, California's lawmakers expressly recognized the need to analyze greenhouse gas emissions as a part of the CEQA process. SB 97 required OPR to develop, and the Natural Resources Agency to adopt, amendments to the CEQA Guidelines addressing the analysis and mitigation of greenhouse gas emissions. Those CEQA Guidelines amendments clarified several points, including the following:

- Lead Agencies must analyze the greenhouse gas emissions of proposed projects and must reach a conclusion regarding the significance of those emissions. [See CCR §15064.4];
- When a project's greenhouse gas emissions may be significant, Lead Agencies must consider a range of potential mitigation measures to reduce those emissions. [See CCR §15126.4(c)];
- Lead Agencies must analyze potentially significant impacts associated with placing projects in hazardous locations, including locations potentially affected by climate change. [See CCR §15126.2(a)];
- Lead Agencies may significantly streamline the analysis of greenhouse gases on a project level by using a programmatic greenhouse gas emissions reduction plan meeting certain criteria. [See CCR §15183.5(b)];

- CEQA mandates analysis of a proposed project's potential energy use (including transportation-related energy), sources of energy supply, and ways to reduce energy demand, including using efficient transportation alternatives. (See CEQA Guidelines, Appendix F.)

It is widely recognized that no single project could generate enough GHG emissions to noticeably change the global climate temperature. However, the combination of GHG emissions from past, present, and future projects could contribute substantially to global climate change. Thus, project specific GHG emissions should be evaluated in terms of whether they would result in a cumulatively significant impact on global climate change. GHG emissions, and their associated contribution to climate change, are inherently a cumulative impact issue. Therefore, project-level impacts of GHG emissions are treated as one-in-the-same as cumulative impacts.

The SJVAPCD GHG Guidance Document for development projects also relies on the use of BPS. For development projects, BPS includes project design elements, land use decisions, and technologies that reduce GHG emissions. Projects implementing any combination of BPS, and/or demonstrating a total 29 percent reduction in GHG emissions from business-as-usual (BAU), would be determined to have a less than cumulatively significant impact on global climate change.

Project GHG emissions are considered less than significant if they can meet any of the following conditions, evaluated in the order presented:

- Project is exempt from CEQA requirements;
- Project complies with an approved GHG emission reduction plan or GHG mitigation program;
- Project implements Best Performance Standards (BPS); or
- Project demonstrates that specific GHG emissions would be reduced or mitigated by at least 29% compared to Business-as-Usual (BAU), including GHG emission reductions achieved since the 2002-2004 baseline period.

3.4 Local

The City of Bakersfield has not adopted its own GHG thresholds or prepared a Climate Action Plan that can be used as a basis for determining project significance. The City assesses GHG emissions using a threshold approach adopted by the SJVAPCD, which requires projects to meet a 29 percent reduction from BAU in accordance with SJVAPCD methodologies. The SJVAPCD GHG Guidance Document includes thresholds based on whether the project will reduce or mitigate GHG levels by 29 percent from BAU levels compared with 2005 levels by 2020. The GHG reduction level for the State to reach 1990 emission levels by 2020 was reduced to 21.7 percent from BAU in 2002 in the 2014 First Update to the Scoping Plan to account for slower than projected growth after the 2008 recession. In addition, the State has reported that 2016 greenhouse gas inventory was below the 2020 target for the first time and was even lower in 2017. Furthermore, the 2017 Scoping Plan states that California is on track to achieve the 2020 target. This means that the State's strategy has successfully reduced GHG emissions while accommodating the growth in the population and vehicle miles traveled that occurred in the State since 2005.

4 SIGNIFICANCE CRITERIA AND METHODOLOGY

4.1 Thresholds and Significance Criteria

Addressing GHG emissions generation impacts requires an agency to determine what constitutes a significant impact. The amendments to the CEQA Guidelines specifically allow lead agencies to determine thresholds of significance that illustrate the extent of an impact and are a basis from which to apply mitigation measures. This means that each agency is left to determine whether a project's GHG emissions will have a "significant" impact on the environment. The guidelines direct that agencies are to use "careful judgment" and "make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate" the project's GHG emissions.⁵

Based upon the criteria derived from Appendix G of the CEQA Guidelines, a project normally would have a significant effect on the environment if it would:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, based on any applicable threshold of significance; or
- Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

San Joaquin Valley Air Pollution Control District Thresholds

The SJVAPCD GHG Guidance Document presents a tiered approach to analyzing project significance with respect to GHG emissions. Project GHG emissions are considered less than significant if they can meet any of the following conditions, evaluated in the order presented:

- Project is exempt from CEQA requirements;
- Project complies with an approved GHG emission reduction plan or GHG mitigation program;
- Project implements Best Performance Standards (BPS); or
- Project demonstrates that specific GHG emissions would be reduced or mitigated by at least 29% compared to Business-as-Usual (BAU), including GHG emission reductions achieved since the 2002-2004 baseline period.

Project-Specific Quantitative Threshold

Section 15064.4(b) of the CEQA Guidelines' amendments for GHG emissions states that a lead agency may consider the following three considerations in assessing the significance of impacts from GHG emissions.

- Consideration 1: The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting.
- Consideration 2: Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- Consideration 3: The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such regulations or requirements must be adopted by the relevant

⁵ 14 California Code of Regulations, Section 15064.4a

public agency through a public review process and must include specific requirements that reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

Neither Kern County nor the City of Bakersfield has adopted GHG thresholds of their own that can be used to determine a project's significance. The SJVAPCD GHG Guidance Document includes thresholds based on whether the project will reduce or mitigate GHG levels by 29 percent from BAU levels compared with 2005 levels by 2020. This level of GHG reduction is based on the target established by ARB's AB 32 Scoping Plan, approved in 2008. However, the Project is expected to commence operations in 2023. This date is beyond the AB 32 2020 milestone year and the SJVAPCD and other agencies have not developed a new threshold based on SB 32 2030 targets. Therefore, this analysis uses a significance approach based on continued progress toward later goals. The analysis of the Project's reduction from BAU based on emissions in 2023 compared with the 21.7 percent reduction is used as one measure of significance. This approach provides estimates of project emissions in the new milestone year compared with the existing threshold to address CEQA considerations 1 and 2 above.

Newhall Ranch

The California Supreme Court decision in the *Center for Biological Diversity et al. vs. California Department of Fish and Wildlife, the Newhall Land and Farming Company* (62 Cal.4th 204 [2015], and known as the Newhall Ranch decision), confirmed that the use of BAU analysis (e.g., 29 percent below BAU), a performance-based approach, would be satisfactory. However, for a project-level analysis that uses CARB's statewide BAU targets, substantial evidence must be presented to support the use of those targets for a particular project at a specific location. The court noted that this may require examination of the data behind the statewide model and adjustment to the levels of reduction from BAU used for project evaluation. To date, neither CARB nor any lead agencies have provided any guidance on how to adjust AB32's statewide BAU target for use at the project level. The regulations in the State's 2008 Scoping Plan have been adopted and the State is on track to meet the 2020 target and achieve continued progress towards meeting the 2017 Scoping Plan target for 2030. A 2022 Scoping Plan is being prepared for adoption in 2022.

In the Newhall case, the Supreme Court was concerned that new development may need to reduce GHG emissions more than existing development to demonstrate it is meeting its fair share of reductions. New development does do more than its fair share through compliance with enhanced regulations, particularly with respect to motor vehicles, energy efficiency, and electricity generation. If no additional reductions are required from an individual project beyond that achieved by regulations, then the amount needed to reach the 2020 target is the amount of GHG emissions a project must reduce to comply with Statewide goals.

4.2 Methodology

The Project's construction and operational emissions were calculated using the California Emissions Estimator Model version 2020.4.0 (CalEEMod). Details of the modeling assumptions and emission factors are provided in [Appendix A: Greenhouse Gas Emissions Data](#). For construction, CalEEMod calculates emissions from off-road equipment usage and on-road vehicle travel associated with haul, delivery, and construction worker trips. GHG emissions during construction were forecasted based on the proposed

construction schedule and applying the mobile-source and fugitive dust emissions factors derived from CalEEMod. The Project's construction-related GHG emissions would be generated from off-road construction equipment, on-road hauling, and vendor (material delivery) trucks, and worker vehicles. The Project's operations related GHG emissions would be generated by vehicular traffic, area sources (e.g., landscaping maintenance, consumer products), electrical generation, natural gas consumption, water supply and wastewater treatment, and solid waste.

5 POTENTIAL IMPACTS AND MITIGATION

5.1 Greenhouse Gas Emissions

Threshold 5.1 Would the Project generate GHG emissions, either directly or indirectly, that could have a significant impact on the environment?

To determine significance, the analysis first quantifies Project-related GHG emissions under a business-as-usual scenario, and then compared these emissions with those emissions that would occur in 2023.

Short-Term Construction Greenhouse Gas Emissions

The Project would result in direct emissions of GHGs from construction. The SJVAPCD does not have a recommendation for assessing the significance of construction related emissions, however, other jurisdictions such as the South Coast Air Quality Management District (SCAQMD) and the Sacramento Metropolitan Air Quality Management District (SMAQMD) have concluded that construction emissions should be included since they may remain in the atmosphere for years after construction is complete. The SCAQMD and SMAQMD recommend that construction emissions be amortized based on the life of the project (30 years) and added to the operational emissions. The approximate quantity of daily GHG emissions generated by construction equipment utilized to build the Project is depicted in [Table 2: Construction-Related Greenhouse Gas Emissions](#).

Category	MTCO ₂ e
2023 Construction	435
Total Construction Emissions	435
30-Year Amortized Construction	14.5

Source: CalEEMod version 2020.4.0. Refer to [Appendix A](#) for model outputs.

As shown, the Project would result in the generation of approximately 435 MTCO₂e over the course of construction. Construction GHG emissions are typically summed and amortized over the lifetime of the Project (assumed to be 30 years), then added to the operational emissions.⁶ The amortized Project construction emissions would be approximately 14.5 MTCO₂e per year. Once construction is complete, the generation of these GHG emissions would cease.

Long-Term Operational Greenhouse Gas Emissions

Operational or long-term emissions occur over the life of the Project. GHG emissions would result from direct emissions such as Project generated vehicular traffic, on-site combustion of natural gas, and operation of any landscaping equipment. Operational GHG emissions would also result from indirect sources, such as off-site generation of electrical power, the energy required to convey water to, and wastewater from the Project, and the emissions associated with solid waste generated from the Project.

⁶ The project lifetime is based on the standard 30-year assumption of the South Coast Air Quality Management District (South Coast Air Quality Management District, *Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #13*, August 26, 2009).

Operational GHG emissions associated with the proposed Project were estimated using CalEEMod 2020.4.0.

Business-as-Usual Operational Emissions

Operational emissions under the business-as-usual scenario were modeled using CalEEMod 2020.4.0. Modeling assumptions for the year 2005 were used to represent business-as-usual conditions (without the benefit of regulations adopted to reduce GHG emissions). The CARB and SJVAPCD guidance recommend using regulatory conditions in 2002-2004 in the baseline scenario to represent conditions as if regulations had not been adopted to allow the effect of projected growth on achieving reduction targets to be clearly defined. CalEEMod defaults were used for the Project energy usage, water usage, waste generation, and area sources (architectural coating and landscaping).

Project Operational Emissions

Operational emissions for the year 2023 for the Project were modeled using CalEEMod. CalEEMod assumes compliance with some, but not all, applicable rules and regulations regarding energy efficiency, vehicle fuel efficiency, renewable energy usage, and other GHG reduction policies, as described in the CalEEMod User's Guide. In addition to these rules and regulations, the Project would incorporate the following design features that would further reduce GHG emissions:

- Title 24 Energy Efficiency Standards – Project buildings will be constructed to meet the latest version of Title 24
- Electrical Outlets for Landscaping Equipment – Outlets provided consistent with building code standards. Three percent electric landscaping use was consistent with SJVAPCD provided standard assumptions.
- Water – Energy savings from water conservation resulting from the Green Building Code Standards for indoor water use and California Model Water Efficient Landscape Ordinance for outdoor water use are not included in CalEEMod. The Water Conservation Act of 2009 mandates a 20 percent reduction in urban water use that is implemented with these regulations.

Operational GHG emissions by source are shown in [Table 3: Project Greenhouse Gas Emissions](#). As previously indicated the analysis includes construction emissions amortized over the life of the Project. Full buildout of the Project is anticipated to occur in 2023. As shown in [Table 3](#), the Project would generate approximately 879 MTCO₂e annually from both construction and operations and the Project and would meet the necessary 21.7 percent reduction from BAU conditions. It is also noted the Project's emissions reduction from BAU conditions (39 percent) would also meet the required 29 percent below BAU in the SJVAPCD GHG Guidance Document. As such, the proposed Project would not inhibit the State's progress in achieving the 2030 GHG emissions target. Therefore, the GHG emissions generated by the proposed Project would be less than significant.

Table 3: Project Greenhouse Gas Emissions

Emissions Source	Emissions (MTCO ₂ e per year)	
	Business as Usual Total Emissions (MTCO ₂ e per year)	Buildout Year (2023) Total Emissions (MTCO ₂ e per year)
Area	0.00	0.00
Energy	755	387
Mobile	486	356
Waste	49	49
Water	142	72
Subtotal Total	1431	864
Amortized Construction Emissions	20	15
Total Annual Project GHG Emissions	1,451	879
Percent Reduction		39%
Significance Threshold		21.7%
Exceeds Significance Threshold?		No
Source: CalEEMod version 2020.4.0. Refer to Appendix A for model outputs.		

Mitigation Measures: No mitigation is required.

Level of Significance: Less than significant impact.

5.2 Greenhouse Gas Reduction Plan Compliance

Threshold 5.2 Would the Project conflict with an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing GHG emissions?

The following analysis assesses the proposed Project's compliance with adopted plans to reduce GHG emissions. The proposed Project is assessed for its consistency with CARB's adopted Scoping Plans. This would be achieved with an assessment of the proposed Project's compliance with the Scoping Plan measures contained in the 2017 Scoping Plan Update.

CARB Scoping Plan

The California State Legislature adopted AB 32 in 2006. AB 32 focuses on reducing GHGs (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride) to 1990 levels by the year 2020. Pursuant to the requirements in AB 32, the ARB adopted the Climate Change Scoping Plan (Scoping Plan) in 2008, which outlines actions recommended to obtain that goal. The Scoping Plan provides a range of GHG reduction actions that include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms such as the cap-and-trade program, and an AB 32 implementation fee to fund the program.

The latest CARB Climate Change Scoping Plan (2017) outlines the state's strategy to reduce state's GHG emissions to return to 40 percent below 1990 levels by 2030 pursuant to SB 32. The CARB Scoping Plan is applicable to state agencies and is not directly applicable to cities/counties and individual projects.

Nonetheless, the Scoping Plan has been the primary tool that is used to develop performance-based and efficiency-based CEQA criteria and GHG reduction targets for climate action planning efforts.

The 2017 Scoping Plan Update identifies additional GHG reduction measures necessary to achieve the 2030 target. These measures build upon those identified in the First Update to the Climate Change Scoping Plan (2013). Although a number of these measures are currently established as policies and measures, some measures have not yet been formally proposed or adopted. It is expected that these measures or similar actions to reduce GHG emissions would be adopted as required to achieve statewide GHG emissions targets. [Table 4: Project Consistency with Applicable CARB Scoping Plan Measures](#) describes how the Project is consistent with the CARB Scoping Plan.

Table 4: Project Consistency with Applicable CARB Scoping Plan Measures			
Scoping Plan Sector	Scoping Plan Measure	Implementing Regulations	Project Consistency
Transportation	California Cap-and-Trade Program Linked to Western Climate Initiative	Regulation for the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanism October 20, 2015 (CCR 95800)	Consistent. The Cap-and-Trade Program applies to large industrial sources such as power plants, refineries, and cement manufacturers. However, the regulation indirectly affects people who use the products and services produced by these industrial sources when increased cost of products or services (such as electricity and fuel) are transferred to the consumers. The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported. Accordingly, GHG emissions associated with CEQA projects' electricity usage are covered by the Cap-and-Trade Program. The Cap-and-Trade Program also covers fuel suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and from combustion of other fossil fuels not directly covered at large sources in the Program's first compliance period.
	California Light-Duty Vehicle Greenhouse Gas Standards	Pavley I 2005 Regulations to Control GHG Emissions from Motor Vehicles	Consistent. This measure applies to all new vehicles starting with model year 2012. The Project would not conflict with its implementation as it would apply to all new passenger vehicles purchased in California. Passenger vehicles, model year 2012 and later, associated with construction and operation of the Project would be required to comply with the Pavley emissions standards.
		2012 LEV III Amendments to the California Greenhouse Gas and Criteria Pollutant Exhaust and Evaporative Emission Standards	Consistent. The LEV III amendments provide reductions from new vehicles sold in California between 2017 and 2025. Passenger vehicles associated with the site would comply with LEV III standards.

Table 4: Project Consistency with Applicable CARB Scoping Plan Measures			
Scoping Plan Sector	Scoping Plan Measure	Implementing Regulations	Project Consistency
	Low Carbon Fuel Standard	2009 readopted in 2015. Regulations to Achieve Greenhouse Gas Emission Reductions Sub article 7. Low Carbon Fuel Standard CCR 95480	Consistent. This measure applies to transportation fuels utilized by vehicles in California. The Project would not conflict with implementation of this measure. Motor vehicles associated with construction and operation of the Project would utilize low carbon transportation fuels as required under this measure.
	Goods Movement	Goods Movement Action Plan January 2007	Not applicable. The Project does not propose any changes to maritime, rail, or intermodal facilities or forms of transportation.
	Medium/Heavy-Duty Vehicle	2010 Amendments to the Truck and Bus Regulation, the Drayage Truck Regulation and the Tractor-Trailer Greenhouse Gas Regulation	Consistent. This measure applies to medium and heavy-duty vehicles that operate in the state. The Project would not conflict with implementation of this measure. Medium and heavy-duty vehicles associated with construction and operation of the Project would be required to comply with the requirements of this regulation.
	High Speed Rail	Funded under SB 862	Not applicable. Implementation of the Project would not interfere with the State's implementation of the high-speed rail.
Electricity and Natural Gas	Energy Efficiency	Title 20 Appliance Efficiency Regulation	Consistent. The Project would not conflict with implementation of this measure. The Project would comply with the latest energy efficiency standards.
		Title 24 Part 6 Energy Efficiency Standards for Residential and Non-Residential Building	
		Title 24 Part 11 California Green Building Code Standards	
	Renewable Portfolio Standard/Renewable Electricity Standard.	2010 Regulation to Implement the Renewable Electricity Standard (33% 2020) SB 350 Clean Energy and Pollution Reduction Act of 2015 (50% 2030)	Consistent. The Project would obtain electricity from the electric utility, PG&E. PG&E obtained 33 percent of its power supply from renewable sources in 2018. Therefore, the utility would provide power when needed on site that is composed of a greater percentage of renewable sources.
Million Solar Roofs Program	Tax incentive program	Consistent. This measure is to increase solar throughout California, which is being done by various electricity providers and existing solar programs.	
Water	Water	Title 24 Part 11 California Green	Consistent. The Project would comply with the California Green Building Standards Code, which

Table 4: Project Consistency with Applicable CARB Scoping Plan Measures			
Scoping Plan Sector	Scoping Plan Measure	Implementing Regulations	Project Consistency
		Building Code Standards	requires a 20 percent reduction in indoor water use.
		SBX 7-7—The Water Conservation Act of 2009	
		Model Water Efficient Landscape Ordinance	
Green Buildings	Green Building Strategy	Title 24 Part 11 California Green Building Code Standards	Consistent. The State goal is to increase the use of green building practices. The Project would implement required green building strategies through existing regulation that requires the Project to comply with various CalGreen requirements.
Industry	Industrial Emissions	2019 CARB Mandatory Reporting Regulation	Consistent. The Project would comply with 2019 CARB Mandatory Reporting requirements.
Recycling and Waste Management	Recycling and Waste	Title 24 Part 11 California Green Building Code Standards	Consistent. The Project would not conflict with implementation of these measures. The Project is required to achieve the recycling mandates via compliance with the CALGreen code.
		AB 341 Statewide 75 Percent Diversion Goal	
Forests	Sustainable Forests	Cap and Trade Offset Projects	Not applicable. No forested lands exist on-site.
High Global Warming Potential	High Global Warming Potential Gases	CARB Refrigerant Management Program CCR 95380	Not applicable. The regulations are applicable to refrigerants used by large air conditioning systems and large commercial and industrial refrigerators and cold storage system. The Project is not expected to use large systems subject to the refrigerant management regulations adopted by CARB.
Agriculture	Agriculture	Cap and Trade Offset Projects for Livestock and Rice Cultivation	Consistent. No grazing, feedlot or other agricultural activities that generate manure currently exist on-site or are proposed to be implemented by the Project.
Source: California Air Resources Board (CARB), <i>California’s 2017 Climate Change Scoping Plan</i> , 2017, and CARB, <i>Climate Change Scoping Plan</i> , December 2008.			

Regarding goals for 2050 under Executive Order S-3-05, at this time it is not possible to quantify the emissions savings from future regulatory measures, as they have not yet been developed; nevertheless, it can be anticipated that operation of the proposed Project would benefit from the implementation of current and potential future regulations (e.g., improvements in vehicle emissions, SB 100/renewable electricity portfolio improvements, etc.) enacted to meet an 80 percent reduction below 1990 levels by 2050.

The majority of the GHG reductions from the Scoping Plan would result from continuation of the Cap-and-Trade regulation. Assembly Bill 398 (2017) extends the state's Cap-and-Trade program through 2030 and the Scoping Plan provide a comprehensive plan for the state to achieve its GHG targets through a variety of regulations enacted at the state level. Additional reductions are achieved from electricity sector standards (i.e., utility providers to supply 60 percent renewable electricity by 2030 and 100 percent renewable by 2045), doubling the energy efficiency savings at end uses, additional reductions from the LCFS, implementing the short-lived GHG strategy (e.g., hydrofluorocarbons), and implementing the Mobile Source Strategy and Sustainable Freight Action Plan.

Several of the State's plans and policies would contribute to a reduction in mobile source emissions from the Project. These include the CARB's Advanced Clean Truck Regulation, Executive Order N-79-20, CARB's Mobile Source Strategy, CARB's Sustainable Freight Action Plan, and CARB's Emissions Reduction Plan for Ports and Goods Movement. CARB's Advanced Clean Truck Regulation in June 2020 requiring truck manufacturers to transition from diesel trucks and vans to electric zero-emission trucks beginning in 2024. By 2045, every new truck sold in California is required to be zero-emission. The Advanced Clean Truck Regulation accelerates the transition of zero-emission medium-and heavy-duty vehicles from Class 2b to Class 8. Executive Order N-79-20 establishes the goal for all new passenger cars and trucks, as well as all drayage/cargo trucks and off-road vehicles and equipment, sold in California, will be zero-emission by 2035 and all medium and heavy-duty vehicles will be zero-emission by 2045. It also directs CARB to develop and propose rulemaking for passenger vehicles and trucks, medium-and heavy-duty fleets where feasible, drayage trucks, and off-road vehicles and equipment "requiring increasing volumes" of new ZEVs "towards the target of 100 percent."

CARB's Mobile Source Strategy which includes increasing ZEV buses and trucks and their Sustainable Freight Action Plan which improves freight system efficiency, utilizes near-zero emissions technology, and deployment of ZEV trucks. This Plan applies to all trucks accessing the Project site and may include existing trucks or new trucks that are part of the statewide goods movement sector. CARB's Emissions Reduction Plan for Ports and Goods Movement identifies measures to improve goods movement efficiencies such as advanced combustion strategies, friction reduction, waste heat recovery, and electrification of accessories. While these measures are not directly applicable to the Project, any commercial activity associated with goods movement would be required to comply with these measures as adopted.

The Project would not obstruct or interfere with efforts to increase ZEVs or state efforts to improve system efficiency. The Project would also benefit from implementation of these State programs and measures, which would reduce future GHG emissions from trucks. As shown in [Table 4](#), the project is consistent with most of the Scoping Plan strategies, while others are not applicable to the project. In addition, as discussed above for Threshold 5.1, the Project's long-term operational emissions would be consistent with the State's long-term emissions reduction goals. Therefore, impacts would be less than significant in this regard.

5.3 Cumulative Setting, Impacts, and Mitigation Measures

Cumulative Setting

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and TACs, which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about 1 day), GHGs have much longer atmospheric lifetimes of 1 year to several thousand years that allow them to be dispersed around the globe.

Cumulative Impacts

It is generally the case that an individual project of this size and nature is of insufficient magnitude by itself to influence climate change or result in a substantial contribution to the global GHG inventory. GHG impacts are recognized as exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective. The additive effect of Project-related GHGs would not result in a reasonably foreseeable cumulatively considerable contribution to global climate change. As discussed above, Project-related GHG emissions would not inhibit the State's long-term reduction goals, and the Project would be consistent with the goals of the 2017 Scoping Plan. As such, the Project would not be cumulatively considerable, and impacts would be less than significant.

6 REFERENCES

1. California Air Resources Board, *California's 2017 Climate Change Scoping Plan*, 2017.
2. California Air Resources Board, *California's 2017 Climate Change Scoping Plan Update*, 2017
3. California Air Resources Board, *Unofficial Electronic Version of the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions*, 2019.
4. City of Bakersfield, *Metropolitan Bakersfield General Plan*, adopted December 2002
5. Intergovernmental Panel on Climate Change, *Climate Change 2007: The Physical Science Basis*, 2007.
6. Intergovernmental Panel on Climate Change, *Climate Change 2013: The Physical Science Basis, Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, 2013.
7. Kimley-Horn, *Traffic Impact Study Scoping Agreement for the Proposed U-Haul Moving and Storage Development in the City of Bakersfield*, February 23, 2022.
8. Kimley-Horn, *Preliminary Site Plan*, January 2022.
9. National Research Council, *Advancing the Science of Climate Change*, 2010.
10. San Joaquin Valley Air Pollution Control District, *Guidance for Valley Land-Use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA*, December 2009.
11. State of California, *Code of Regulations Section 15065.5a*, 2018.
12. U.S. EPA, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2016*, 2018.
13. U.S. EPA, *Methane and Nitrous Oxide Emission from Natural Sources*, 2010.
14. U.S. EPA, *Overview of Greenhouse Gases*, 2018.

Appendix A

Greenhouse Gas Emissions Data

Bakersfield U-Haul - Kern-San Joaquin County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

**Bakersfield U-Haul
Kern-San Joaquin County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	205.31	1000sqft	1.59	205,310.00	0
Parking Lot	30.00	Space	7.97	347,057.00	0
City Park	1.67	Acre	1.67	72,887.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	32
Climate Zone	3			Operational Year	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 30 parking spaces but total impervious area noted on site plan is 7.97 acres

Building area = 1,504 sqft

Construction Phase - No demolition required - project is built on a vacant site with no existing buildings or paving material.

Trips and VMT -

Demolition - site is vacant - no demolition required for project

Grading - per construction questionnaire

Architectural Coating -

Vehicle Trips - Trip rate per trip generation summary table.

Area Coating -

Water And Wastewater -

Bakersfield U-Haul - Kern-San Joaquin County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

- Solid Waste -
- Land Use Change -
- Sequestration -
- Construction Off-road Equipment Mitigation - Per SJVAPCD Rules and Regulations
- Water Mitigation -
- Waste Mitigation -
- Off-road Equipment - Anticipated construction equipment/hours
- Off-road Equipment - Anticipated construction equipment/duration
- Off-road Equipment -
- Off-road Equipment -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	73.00
tblConstructionPhase	NumDays	300.00	100.00
tblConstructionPhase	NumDays	30.00	40.00
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	10.00	5.00
tblGrading	MaterialImported	0.00	500.00
tblLandUse	LandUseSquareFeet	12,000.00	347,057.00
tblLandUse	LandUseSquareFeet	72,745.20	72,887.00
tblLandUse	LotAcreage	4.71	1.59
tblLandUse	LotAcreage	0.27	7.97
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblSequestration	NumberOfNewTrees	0.00	71.00

Bakersfield U-Haul - Kern-San Joaquin County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblSequestration	NumberOfNewTrees	0.00	12.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	1.74	1.45
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	1.74	1.45
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	1.74	1.45

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	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
Year	tons/yr										MT/yr					
2023	1.7085	1.6535	1.8929	4.7500e-003	0.3939	0.0670	0.4608	0.1418	0.0626	0.2044	0.0000	428.5123	428.5123	0.0637	0.0179	435.4233
Maximum	1.7085	1.6535	1.8929	4.7500e-003	0.3939	0.0670	0.4608	0.1418	0.0626	0.2044	0.0000	428.5123	428.5123	0.0637	0.0179	435.4233

Mitigated Construction

	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
Year	tons/yr										MT/yr					

Bakersfield U-Haul - Kern-San Joaquin County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2023	1.7085	1.6535	1.8929	4.7500e-003	0.2390	0.0670	0.3060	0.0779	0.0626	0.1405	0.0000	428.5120	428.5120	0.0637	0.0179	435.4231
Maximum	1.7085	1.6535	1.8929	4.7500e-003	0.2390	0.0670	0.3060	0.0779	0.0626	0.1405	0.0000	428.5120	428.5120	0.0637	0.0179	435.4231

	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
Percent Reduction	0.00	0.00	0.00	0.00	39.32	0.00	33.60	45.05	0.00	31.25	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	2-1-2023	4-30-2023	0.8320	0.8320
2	5-1-2023	7-31-2023	1.3113	1.3113
3	8-1-2023	9-30-2023	1.1963	1.1963
		Highest	1.3113	1.3113

2.2 Overall Operational
Unmitigated Operational

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
	tons/yr										MT/yr					
Area	0.9751	2.0000e-005	2.1800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.2300e-003	4.2300e-003	1.0000e-005	0.0000	4.5100e-003
Energy	0.0198	0.1803	0.1514	1.0800e-003		0.0137	0.0137		0.0137	0.0137	0.0000	383.7464	383.7464	0.0341	7.2700e-003	386.7668
Mobile	0.1639	0.3309	1.5556	3.7400e-003	0.3297	3.6300e-003	0.3333	0.0883	3.4200e-003	0.0917	0.0000	349.4085	349.4085	0.0183	0.0212	356.1841
Waste						0.0000	0.0000		0.0000	0.0000	39.2036	0.0000	39.2036	2.3169	0.0000	97.1254
Water						0.0000	0.0000		0.0000	0.0000	15.0626	24.4140	39.4766	1.5510	0.0370	89.2805

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Total	1.1589	0.5112	1.7092	4.8200e-003	0.3297	0.0173	0.3470	0.0883	0.0171	0.1054	54.2662	757.5732	811.8394	3.9203	0.0655	929.3613
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Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.9751	2.0000e-005	2.1800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.2300e-003	4.2300e-003	1.0000e-005	0.0000	4.5100e-003
Energy	0.0198	0.1803	0.1514	1.0800e-003		0.0137	0.0137		0.0137	0.0137	0.0000	383.7464	383.7464	0.0341	7.2700e-003	386.7668
Mobile	0.1639	0.3309	1.5556	3.7400e-003	0.3297	3.6300e-003	0.3333	0.0883	3.4200e-003	0.0917	0.0000	349.4085	349.4085	0.0183	0.0212	356.1841
Waste						0.0000	0.0000		0.0000	0.0000	19.6018	0.0000	19.6018	1.1584	0.0000	48.5627
Water						0.0000	0.0000		0.0000	0.0000	12.0501	19.6208	31.6708	1.2408	0.0296	71.5149
Total	1.1589	0.5112	1.7092	4.8200e-003	0.3297	0.0173	0.3470	0.0883	0.0171	0.1054	31.6519	752.7799	784.4318	2.4517	0.0581	863.0330

	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
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	41.67	0.63	3.38	37.46	11.30	7.14

2.3 Vegetation

Vegetation

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	CO2e
Category	MT
New Trees	57.9240
Total	57.9240

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	2/1/2023	2/7/2023	5	5	
2	Grading	Grading	2/8/2023	4/4/2023	5	40	
3	Building Construction	Building Construction	4/5/2023	8/22/2023	5	100	
4	Architectural Coating	Architectural Coating	6/22/2023	10/2/2023	5	73	
5	Paving	Paving	8/23/2023	9/12/2023	5	15	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 120

Acres of Paving: 7.97

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 307,965; Non-Residential Outdoor: 102,655; Striped Parking Area: 20,823

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41

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Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	1	7.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	63.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	263.00	102.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	53.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	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					
Fugitive Dust					0.0491	0.0000	0.0491	0.0253	0.0000	0.0253	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6500e-003	0.0688	0.0456	1.0000e-004		3.1700e-003	3.1700e-003		2.9100e-003	2.9100e-003	0.0000	8.3627	8.3627	2.7000e-003	0.0000	8.4303
Total	6.6500e-003	0.0688	0.0456	1.0000e-004	0.0491	3.1700e-003	0.0523	0.0253	2.9100e-003	0.0282	0.0000	8.3627	8.3627	2.7000e-003	0.0000	8.4303

Unmitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	9.0000e-005	1.0800e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.2958	0.2958	1.0000e-005	1.0000e-005	0.2985
Total	1.3000e-004	9.0000e-005	1.0800e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.2958	0.2958	1.0000e-005	1.0000e-005	0.2985

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction On-Site

	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					
Fugitive Dust					0.0182	0.0000	0.0182	9.3600e-003	0.0000	9.3600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6500e-003	0.0688	0.0456	1.0000e-004		3.1700e-003	3.1700e-003		2.9100e-003	2.9100e-003	0.0000	8.3627	8.3627	2.7000e-003	0.0000	8.4303
Total	6.6500e-003	0.0688	0.0456	1.0000e-004	0.0182	3.1700e-003	0.0214	9.3600e-003	2.9100e-003	0.0123	0.0000	8.3627	8.3627	2.7000e-003	0.0000	8.4303

Mitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	9.0000e-005	1.0800e-003	0.0000	3.4000e-004	0.0000	3.5000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2958	0.2958	1.0000e-005	1.0000e-005	0.2985
Total	1.3000e-004	9.0000e-005	1.0800e-003	0.0000	3.4000e-004	0.0000	3.5000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2958	0.2958	1.0000e-005	1.0000e-005	0.2985

3.3 Grading - 2023

Unmitigated Construction On-Site

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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					
Fugitive Dust					0.1841	0.0000	0.1841	0.0731	0.0000	0.0731	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0487	0.5039	0.4229	9.0000e-004		0.0212	0.0212		0.0195	0.0195	0.0000	79.0627	79.0627	0.0256	0.0000	79.7019
Total	0.0487	0.5039	0.4229	9.0000e-004	0.1841	0.0212	0.2053	0.0731	0.0195	0.0926	0.0000	79.0627	79.0627	0.0256	0.0000	79.7019

Unmitigated Construction Off-Site

	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					
Hauling	7.0000e-005	3.8900e-003	8.6000e-004	2.0000e-005	5.4000e-004	4.0000e-005	5.8000e-004	1.5000e-004	4.0000e-005	1.9000e-004	0.0000	1.7641	1.7641	1.0000e-005	2.8000e-004	1.8469
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1700e-003	8.1000e-004	9.5700e-003	3.0000e-005	3.2200e-003	2.0000e-005	3.2400e-003	8.6000e-004	2.0000e-005	8.7000e-004	0.0000	2.6295	2.6295	8.0000e-005	7.0000e-005	2.6534
Total	1.2400e-003	4.7000e-003	0.0104	5.0000e-005	3.7600e-003	6.0000e-005	3.8200e-003	1.0100e-003	6.0000e-005	1.0600e-003	0.0000	4.3936	4.3936	9.0000e-005	3.5000e-004	4.5003

Mitigated Construction On-Site

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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					
Fugitive Dust					0.0682	0.0000	0.0682	0.0271	0.0000	0.0271	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0487	0.5039	0.4229	9.0000e-004		0.0212	0.0212		0.0195	0.0195	0.0000	79.0626	79.0626	0.0256	0.0000	79.7018
Total	0.0487	0.5039	0.4229	9.0000e-004	0.0682	0.0212	0.0894	0.0271	0.0195	0.0466	0.0000	79.0626	79.0626	0.0256	0.0000	79.7018

Mitigated Construction Off-Site

	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					
Hauling	7.0000e-005	3.8900e-003	8.6000e-004	2.0000e-005	5.2000e-004	4.0000e-005	5.6000e-004	1.4000e-004	4.0000e-005	1.8000e-004	0.0000	1.7641	1.7641	1.0000e-005	2.8000e-004	1.8469
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1700e-003	8.1000e-004	9.5700e-003	3.0000e-005	3.0600e-003	2.0000e-005	3.0700e-003	8.2000e-004	2.0000e-005	8.3000e-004	0.0000	2.6295	2.6295	8.0000e-005	7.0000e-005	2.6534
Total	1.2400e-003	4.7000e-003	0.0104	5.0000e-005	3.5800e-003	6.0000e-005	3.6300e-003	9.6000e-004	6.0000e-005	1.0100e-003	0.0000	4.3936	4.3936	9.0000e-005	3.5000e-004	4.5003

3.4 Building Construction - 2023

Unmitigated Construction On-Site

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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					
Off-Road	0.0764	0.6954	0.8007	1.3100e-003		0.0340	0.0340		0.0320	0.0320	0.0000	112.7339	112.7339	0.0266	0.0000	113.3976
Total	0.0764	0.6954	0.8007	1.3100e-003		0.0340	0.0340		0.0320	0.0320	0.0000	112.7339	112.7339	0.0266	0.0000	113.3976

Unmitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.9100e-003	0.2257	0.0732	1.0400e-003	0.0341	1.4800e-003	0.0355	9.8300e-003	1.4100e-003	0.0112	0.0000	99.4244	99.4244	3.8000e-004	0.0147	103.8112
Worker	0.0384	0.0267	0.3145	9.3000e-004	0.1060	5.8000e-004	0.1065	0.0282	5.3000e-004	0.0287	0.0000	86.4434	86.4434	2.5600e-003	2.4200e-003	87.2299
Total	0.0443	0.2524	0.3877	1.9700e-003	0.1400	2.0600e-003	0.1421	0.0380	1.9400e-003	0.0399	0.0000	185.8679	185.8679	2.9400e-003	0.0171	191.0411

Mitigated Construction On-Site

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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					
Off-Road	0.0764	0.6954	0.8007	1.3100e-003		0.0340	0.0340		0.0320	0.0320	0.0000	112.7338	112.7338	0.0266	0.0000	113.3975
Total	0.0764	0.6954	0.8007	1.3100e-003		0.0340	0.0340		0.0320	0.0320	0.0000	112.7338	112.7338	0.0266	0.0000	113.3975

Mitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.9100e-003	0.2257	0.0732	1.0400e-003	0.0326	1.4800e-003	0.0341	9.4700e-003	1.4100e-003	0.0109	0.0000	99.4244	99.4244	3.8000e-004	0.0147	103.8112
Worker	0.0384	0.0267	0.3145	9.3000e-004	0.1005	5.8000e-004	0.1010	0.0268	5.3000e-004	0.0273	0.0000	86.4434	86.4434	2.5600e-003	2.4200e-003	87.2299
Total	0.0443	0.2524	0.3877	1.9700e-003	0.1331	2.0600e-003	0.1351	0.0363	1.9400e-003	0.0382	0.0000	185.8679	185.8679	2.9400e-003	0.0171	191.0411

3.5 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category	tons/yr										MT/yr				
Archit. Coating	1.4998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.0000e-003	0.0476	0.0661	1.1000e-004		2.5800e-003	2.5800e-003		2.5800e-003	2.5800e-003	0.0000	9.3194	9.3194	5.6000e-004	9.3333
Total	1.5068	0.0476	0.0661	1.1000e-004		2.5800e-003	2.5800e-003		2.5800e-003	2.5800e-003	0.0000	9.3194	9.3194	5.6000e-004	9.3333

Unmitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.6500e-003	3.9200e-003	0.0463	1.4000e-004	0.0156	9.0000e-005	0.0157	4.1400e-003	8.0000e-005	4.2200e-003	0.0000	12.7167	12.7167	3.8000e-004	3.6000e-004	12.8324
Total	5.6500e-003	3.9200e-003	0.0463	1.4000e-004	0.0156	9.0000e-005	0.0157	4.1400e-003	8.0000e-005	4.2200e-003	0.0000	12.7167	12.7167	3.8000e-004	3.6000e-004	12.8324

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category	tons/yr										MT/yr					
	Archit. Coating	1.4998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.0000e-003	0.0476	0.0661	1.1000e-004		2.5800e-003	2.5800e-003		2.5800e-003	2.5800e-003	0.0000	9.3194	9.3194	5.6000e-004	0.0000	9.3333
Total	1.5068	0.0476	0.0661	1.1000e-004		2.5800e-003	2.5800e-003		2.5800e-003	2.5800e-003	0.0000	9.3194	9.3194	5.6000e-004	0.0000	9.3333

Mitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.6500e-003	3.9200e-003	0.0463	1.4000e-004	0.0148	9.0000e-005	0.0149	3.9400e-003	8.0000e-005	4.0200e-003	0.0000	12.7167	12.7167	3.8000e-004	3.6000e-004	12.8324
Total	5.6500e-003	3.9200e-003	0.0463	1.4000e-004	0.0148	9.0000e-005	0.0149	3.9400e-003	8.0000e-005	4.0200e-003	0.0000	12.7167	12.7167	3.8000e-004	3.6000e-004	12.8324

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category	tons/yr									MT/yr						
	Off-Road	7.7500e-003	0.0764	0.1094	1.7000e-004		3.8300e-003	3.8300e-003		3.5200e-003	3.5200e-003	0.0000	15.0202	15.0202	4.8600e-003	0.0000
Paving	0.0104					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0182	0.0764	0.1094	1.7000e-004		3.8300e-003	3.8300e-003		3.5200e-003	3.5200e-003	0.0000	15.0202	15.0202	4.8600e-003	0.0000	15.1416

Unmitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-004	2.3000e-004	2.6900e-003	1.0000e-005	9.1000e-004	0.0000	9.1000e-004	2.4000e-004	0.0000	2.5000e-004	0.0000	0.7395	0.7395	2.0000e-005	2.0000e-005	0.7463
Total	3.3000e-004	2.3000e-004	2.6900e-003	1.0000e-005	9.1000e-004	0.0000	9.1000e-004	2.4000e-004	0.0000	2.5000e-004	0.0000	0.7395	0.7395	2.0000e-005	2.0000e-005	0.7463

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category	tons/yr									MT/yr						
Off-Road	7.7500e-003	0.0764	0.1094	1.7000e-004		3.8300e-003	3.8300e-003		3.5200e-003	3.5200e-003	0.0000	15.0201	15.0201	4.8600e-003	0.0000	15.1416
Paving	0.0104					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0182	0.0764	0.1094	1.7000e-004		3.8300e-003	3.8300e-003		3.5200e-003	3.5200e-003	0.0000	15.0201	15.0201	4.8600e-003	0.0000	15.1416

Mitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-004	2.3000e-004	2.6900e-003	1.0000e-005	8.6000e-004	0.0000	8.6000e-004	2.3000e-004	0.0000	2.3000e-004	0.0000	0.7395	0.7395	2.0000e-005	2.0000e-005	0.7463
Total	3.3000e-004	2.3000e-004	2.6900e-003	1.0000e-005	8.6000e-004	0.0000	8.6000e-004	2.3000e-004	0.0000	2.3000e-004	0.0000	0.7395	0.7395	2.0000e-005	2.0000e-005	0.7463

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	0.1639	0.3309	1.5556	3.7400e-003	0.3297	3.6300e-003	0.3333	0.0883	3.4200e-003	0.0917	0.0000	349.4085	349.4085	0.0183	0.0212	356.1841
Unmitigated	0.1639	0.3309	1.5556	3.7400e-003	0.3297	3.6300e-003	0.3333	0.0883	3.4200e-003	0.0917	0.0000	349.4085	349.4085	0.0183	0.0212	356.1841

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	297.70	297.70	297.70	869,137	869,137
Total	297.70	297.70	297.70	869,137	869,137

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
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No Rail	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.475755	0.052577	0.176436	0.169714	0.032065	0.009816	0.013925	0.037355	0.000591	0.000241	0.025277	0.001517	0.004732
Parking Lot	0.475755	0.052577	0.176436	0.169714	0.032065	0.009816	0.013925	0.037355	0.000591	0.000241	0.025277	0.001517	0.004732

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Unrefrigerated Warehouse-No Rail	3.6771e+006	0.0198	0.1803	0.1514	1.0800e-003		0.0137	0.0137		0.0137	0.0137	0.0000	196.2242	196.2242	3.7600e-003	3.6000e-003	197.3902
Total		0.0198	0.1803	0.1514	1.0800e-003		0.0137	0.0137		0.0137	0.0137	0.0000	196.2242	196.2242	3.7600e-003	3.6000e-003	197.3902

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	3.6771e+006	0.0198	0.1803	0.1514	1.0800e-003		0.0137	0.0137		0.0137	0.0137	0.0000	196.2242	196.2242	3.7600e-003	3.6000e-003	197.3902
Total		0.0198	0.1803	0.1514	1.0800e-003		0.0137	0.0137		0.0137	0.0137	0.0000	196.2242	196.2242	3.7600e-003	3.6000e-003	197.3902

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	121470	11.2389	1.8200e-003	2.2000e-004	11.3500
Unrefrigerated Warehouse-No Rail	1.90528e+006	176.2834	0.0285	3.4600e-003	178.0265
Total		187.5223	0.0303	3.6800e-003	189.3765

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	121470	11.2389	1.8200e-003	2.2000e-004	11.3500
Unrefrigerated Warehouse-No Rail	1.90528e+006	176.2834	0.0285	3.4600e-003	178.0265
Total		187.5223	0.0303	3.6800e-003	189.3765

6.0 Area Detail

6.1 Mitigation Measures Area

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	0.9751	2.0000e-005	2.1800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.2300e-003	4.2300e-003	1.0000e-005	0.0000	4.5100e-003
Unmitigated	0.9751	2.0000e-005	2.1800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.2300e-003	4.2300e-003	1.0000e-005	0.0000	4.5100e-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	0.1500					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8250					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-004	2.0000e-005	2.1800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.2300e-003	4.2300e-003	1.0000e-005	0.0000	4.5100e-003
Total	0.9751	2.0000e-005	2.1800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.2300e-003	4.2300e-003	1.0000e-005	0.0000	4.5100e-003

Mitigated

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	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	0.1500					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8250					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-004	2.0000e-005	2.1800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.2300e-003	4.2300e-003	1.0000e-005	0.0000	4.5100e-003
Total	0.9751	2.0000e-005	2.1800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.2300e-003	4.2300e-003	1.0000e-005	0.0000	4.5100e-003

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	31.6708	1.2408	0.0296	71.5149

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated	39.4766	1.5510	0.0370	89.2805
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7.2 Water by Land Use

Unmitigated

Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e	
Land Use	Mgal	MT/yr			
City Park	0 / 1.98977	0.6444	1.0000e-004	1.0000e-005	0.6507
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	47.4779 / 0	38.8322	1.5509	0.0370	88.6298
Total		39.4766	1.5510	0.0370	89.2805

Mitigated

Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e	
Land Use	Mgal	MT/yr			
City Park	0 / 1.8684	0.6051	1.0000e-004	1.0000e-005	0.6110
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	37.9823 / 0	31.0658	1.2407	0.0296	70.9039

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Total	31.6708	1.2408	0.0296	71.5149
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8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	19.6018	1.1584	0.0000	48.5627
Unmitigated	39.2036	2.3169	0.0000	97.1254

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.14	0.0284	1.6800e-003	0.0000	0.0704

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	192.99	39.1752	2.3152	0.0000	97.0550
Total		39.2037	2.3169	0.0000	97.1254

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.07	0.0142	8.4000e-004	0.0000	0.0352
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	96.495	19.5876	1.1576	0.0000	48.5275
Total		19.6018	1.1584	0.0000	48.5627

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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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	57.9240	0.0000	0.0000	57.9240

11.2 Net New Trees

Species Class

	Number of Trees	Total CO2	CH4	N2O	CO2e
		MT			
Miscellaneous	71	50.2680	0.0000	0.0000	50.2680
Pine	12	7.6560	0.0000	0.0000	7.6560

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Total		57.9240	0.0000	0.0000	57.9240
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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

**Bakersfield U-Haul
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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	205.31	1000sqft	4.71	205,310.00	0
Parking Lot	30.00	Space	0.27	12,000.00	0
City Park	1.67	Acre	1.67	72,745.20	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	32
Climate Zone	3			Operational Year	2005
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	641	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Utility Intensity Factors from CalEEMod 2016 3.1 are conservatively used to represent 2005 factors.

Land Use - 30 parking spaces but total impervious area noted on site plan is 7.97 acres

Building area = 1,504 sqft

Construction Phase - No demolition required - project is built on a vacant site with no existing buildings or paving material.

Trips and VMT -

Demolition - site is vacant - no demolition required for project

Grading - per construction questionnaire

Architectural Coating -

Vehicle Trips - Trip rate per trip generation summary table.

Vehicle Emission Factors -

Area Coating -

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Water And Wastewater -

Solid Waste -

Land Use Change -

Sequestration -

Construction Off-road Equipment Mitigation - Per SJVAPCD Rules and Regulations

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	73.00
tblConstructionPhase	NumDays	230.00	100.00
tblConstructionPhase	NumDays	20.00	40.00
tblConstructionPhase	NumDays	20.00	30.00
tblConstructionPhase	NumDays	10.00	20.00
tblGrading	MaterialImported	0.00	500.00
tblProjectCharacteristics	CH4IntensityFactor	0.033	0.029
tblProjectCharacteristics	CO2IntensityFactor	203.98	641
tblProjectCharacteristics	N2OIntensityFactor	0.004	0.006
tblSequestration	NumberOfNewTrees	0.00	71.00
tblSequestration	NumberOfNewTrees	0.00	12.00
tblTripsAndVMT	HaulingTripNumber	63.00	62.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	1.74	1.45
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	1.74	1.45
tblVehicleTrips	WD_TR	0.78	0.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	WD_TR	1.74	1.45
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2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	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
Year	tons/yr										MT/yr					
2004	0.9466	5.3667	3.7862	0.0330	0.4078	0.3450	0.7529	0.1884	0.3436	0.5320	0.0000	359.8694	359.8694	0.0746	0.0190	367.3889
2005	2.5139	0.8038	0.5287	5.2400e-003	8.8700e-003	0.0538	0.0627	2.3600e-003	0.0538	0.0562	0.0000	55.5988	55.5988	0.0108	1.1400e-003	56.2080
Maximum	2.5139	5.3667	3.7862	0.0330	0.4078	0.3450	0.7529	0.1884	0.3436	0.5320	0.0000	359.8694	359.8694	0.0746	0.0190	367.3889

Mitigated Construction

	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
Year	tons/yr										MT/yr					
2004	0.9466	5.3667	3.7862	0.0330	0.2107	0.3450	0.5557	0.0905	0.3436	0.4341	0.0000	359.8691	359.8691	0.0746	0.0190	367.3886
2005	2.5139	0.8038	0.5287	5.2400e-003	8.4100e-003	0.0538	0.0622	2.2400e-003	0.0538	0.0560	0.0000	55.5987	55.5987	0.0108	1.1400e-003	56.2080
Maximum	2.5139	5.3667	3.7862	0.0330	0.2107	0.3450	0.5557	0.0905	0.3436	0.4341	0.0000	359.8691	359.8691	0.0746	0.0190	367.3886

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	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
Percent Reduction	0.00	0.00	0.00	0.00	47.41	0.00	24.23	51.39	0.00	16.66	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	2-1-2004	4-30-2004	2.4475	2.4475
2	5-1-2004	7-31-2004	2.5943	2.5943
3	8-1-2004	10-31-2004	1.1562	1.1562
6	5-1-2005	7-31-2005	1.0169	1.0169
7	8-1-2005	9-30-2005	2.2370	2.2370
		Highest	2.5943	2.5943

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	1.0418	3.0000e-005	2.7700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.2300e-003	4.2300e-003	2.0000e-005	0.0000	4.7300e-003
Energy	0.0198	0.1803	0.1514	1.0800e-003		0.0137	0.0137		0.0137	0.0137	0.0000	751.4097	751.4097	0.0289	8.7900e-003	754.7524
Mobile	0.5942	1.7493	6.7692	0.0122	0.3306	0.0386	0.3692	0.0887	0.0368	0.1254	0.0000	468.8667	468.8667	0.0627	0.0518	485.8550
Waste						0.0000	0.0000		0.0000	0.0000	39.2036	0.0000	39.2036	2.3169	0.0000	97.1254
Water						0.0000	0.0000		0.0000	0.0000	15.0626	76.7201	91.7827	1.5505	0.0373	141.6461
Total	1.6558	1.9295	6.9234	0.0133	0.3306	0.0523	0.3829	0.0887	0.0505	0.1391	54.2662	1,297.0008	1,351.2670	3.9590	0.0978	1,479.3835

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.0418	3.0000e-005	2.7700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.2300e-003	4.2300e-003	2.0000e-005	0.0000	4.7300e-003
Energy	0.0198	0.1803	0.1514	1.0800e-003		0.0137	0.0137		0.0137	0.0137	0.0000	751.4097	751.4097	0.0289	8.7900e-003	754.7524
Mobile	0.5942	1.7493	6.7692	0.0122	0.3306	0.0386	0.3692	0.0887	0.0368	0.1254	0.0000	468.8667	468.8667	0.0627	0.0518	485.8550
Waste						0.0000	0.0000		0.0000	0.0000	19.6018	0.0000	19.6018	1.1584	0.0000	48.5627
Water						0.0000	0.0000		0.0000	0.0000	15.0626	76.7201	91.7827	1.5505	0.0373	141.6461
Total	1.6558	1.9295	6.9234	0.0133	0.3306	0.0523	0.3829	0.0887	0.0505	0.1391	34.6644	1,297.0008	1,331.6652	2.8006	0.0978	1,430.8208

	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
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.12	0.00	1.45	29.26	0.00	3.28

2.3 Vegetation

Vegetation

	CO2e
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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category	MT
New Trees	57.9240
Total	57.9240

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	2/1/2004	2/27/2004	5	20	
2	Grading	Grading	3/1/2004	4/23/2004	5	40	
3	Building Construction	Building Construction	4/24/2004	9/10/2004	5	100	
4	Paving	Paving	8/22/2005	9/30/2005	5	30	
5	Architectural Coating	Architectural Coating	6/22/2005	9/30/2005	5	73	

Acres of Grading (Site Preparation Phase): 30

Acres of Grading (Grading Phase): 40

Acres of Paving: 0.27

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 307,965; Non-Residential Outdoor: 102,655; Striped Parking Area: 720

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	62.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	122.00	48.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	24.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

- Replace Ground Cover
- Water Exposed Area
- Water Unpaved Roads
- Reduce Vehicle Speed on Unpaved Roads
- Clean Paved Roads

3.2 Site Preparation - 2004

Unmitigated Construction On-Site

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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					
Fugitive Dust					0.1966	0.0000	0.1966	0.1010	0.0000	0.1010	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1121	0.8032	0.3078	4.5000e-003		0.0505	0.0505		0.0505	0.0505	0.0000	40.0046	40.0046	9.1300e-003	0.0000	40.2329
Total	0.1121	0.8032	0.3078	4.5000e-003	0.1966	0.0505	0.2470	0.1010	0.0505	0.1515	0.0000	40.0046	40.0046	9.1300e-003	0.0000	40.2329

Unmitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2800e-003	5.7300e-003	0.0415	3.0000e-005	1.4500e-003	7.0000e-005	1.5200e-003	3.9000e-004	6.0000e-005	4.5000e-004	0.0000	1.7352	1.7352	3.4000e-004	2.7000e-004	1.8240
Total	4.2800e-003	5.7300e-003	0.0415	3.0000e-005	1.4500e-003	7.0000e-005	1.5200e-003	3.9000e-004	6.0000e-005	4.5000e-004	0.0000	1.7352	1.7352	3.4000e-004	2.7000e-004	1.8240

Mitigated Construction On-Site

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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					
Fugitive Dust					0.0840	0.0000	0.0840	0.0432	0.0000	0.0432	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1121	0.8032	0.3078	4.5000e-003		0.0505	0.0505		0.0505	0.0505	0.0000	40.0046	40.0046	9.1300e-003	0.0000	40.2329
Total	0.1121	0.8032	0.3078	4.5000e-003	0.0840	0.0505	0.1345	0.0432	0.0505	0.0937	0.0000	40.0046	40.0046	9.1300e-003	0.0000	40.2329

Mitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2800e-003	5.7300e-003	0.0415	3.0000e-005	1.3800e-003	7.0000e-005	1.4400e-003	3.7000e-004	6.0000e-005	4.3000e-004	0.0000	1.7352	1.7352	3.4000e-004	2.7000e-004	1.8240
Total	4.2800e-003	5.7300e-003	0.0415	3.0000e-005	1.3800e-003	7.0000e-005	1.4400e-003	3.7000e-004	6.0000e-005	4.3000e-004	0.0000	1.7352	1.7352	3.4000e-004	2.7000e-004	1.8240

3.3 Grading - 2004

Unmitigated Construction On-Site

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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					
Fugitive Dust					0.1417	0.0000	0.1417	0.0685	0.0000	0.0685	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1663	1.1903	0.4590	7.0100e-003		0.0748	0.0748		0.0748	0.0748	0.0000	62.4092	62.4092	0.0135	0.0000	62.7477
Total	0.1663	1.1903	0.4590	7.0100e-003	0.1417	0.0748	0.2165	0.0685	0.0748	0.1433	0.0000	62.4092	62.4092	0.0135	0.0000	62.7477

Unmitigated Construction Off-Site

	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					
Hauling	2.2700e-003	0.0319	7.3600e-003	2.2000e-004	5.3000e-004	1.1100e-003	1.6400e-003	1.5000e-004	1.0600e-003	1.2100e-003	0.0000	2.2737	2.2737	1.0000e-004	3.6000e-004	2.3823
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.1300e-003	9.5400e-003	0.0692	5.0000e-005	2.4200e-003	1.1000e-004	2.5300e-003	6.4000e-004	1.0000e-004	7.4000e-004	0.0000	2.8920	2.8920	5.7000e-004	4.5000e-004	3.0400
Total	9.4000e-003	0.0415	0.0766	2.7000e-004	2.9500e-003	1.2200e-003	4.1700e-003	7.9000e-004	1.1600e-003	1.9500e-003	0.0000	5.1656	5.1656	6.7000e-004	8.1000e-004	5.4223

Mitigated Construction On-Site

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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					
Fugitive Dust					0.0606	0.0000	0.0606	0.0293	0.0000	0.0293	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1663	1.1903	0.4590	7.0100e-003		0.0748	0.0748		0.0748	0.0748	0.0000	62.4092	62.4092	0.0135	0.0000	62.7476
Total	0.1663	1.1903	0.4590	7.0100e-003	0.0606	0.0748	0.1353	0.0293	0.0748	0.1041	0.0000	62.4092	62.4092	0.0135	0.0000	62.7476

Mitigated Construction Off-Site

	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					
Hauling	2.2700e-003	0.0319	7.3600e-003	2.2000e-004	5.1000e-004	1.1100e-003	1.6200e-003	1.4000e-004	1.0600e-003	1.2000e-003	0.0000	2.2737	2.2737	1.0000e-004	3.6000e-004	2.3823
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.1300e-003	9.5400e-003	0.0692	5.0000e-005	2.2900e-003	1.1000e-004	2.4000e-003	6.1000e-004	1.0000e-004	7.1000e-004	0.0000	2.8920	2.8920	5.7000e-004	4.5000e-004	3.0400
Total	9.4000e-003	0.0415	0.0766	2.7000e-004	2.8000e-003	1.2200e-003	4.0200e-003	7.5000e-004	1.1600e-003	1.9100e-003	0.0000	5.1656	5.1656	6.7000e-004	8.1000e-004	5.4223

3.4 Building Construction - 2004

Unmitigated Construction On-Site

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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					
Off-Road	0.4362	2.4131	1.1180	0.0152		0.1897	0.1897		0.1897	0.1897	0.0000	131.4305	131.4305	0.0355	0.0000	132.3187
Total	0.4362	2.4131	1.1180	0.0152		0.1897	0.1897		0.1897	0.1897	0.0000	131.4305	131.4305	0.0355	0.0000	132.3187

Unmitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0732	0.7189	0.3763	5.0800e-003	0.0160	0.0266	0.0426	4.6200e-003	0.0254	0.0300	0.0000	60.3205	60.3205	3.7300e-003	8.7800e-003	63.0292
Worker	0.1451	0.1941	1.4072	9.3000e-004	0.0492	2.2100e-003	0.0514	0.0131	2.0500e-003	0.0151	0.0000	58.8037	58.8037	0.0116	9.1300e-003	61.8141
Total	0.2183	0.9129	1.7835	6.0100e-003	0.0652	0.0288	0.0940	0.0177	0.0275	0.0452	0.0000	119.1242	119.1242	0.0154	0.0179	124.8433

Mitigated Construction On-Site

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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					
Off-Road	0.4362	2.4131	1.1180	0.0152		0.1897	0.1897		0.1897	0.1897	0.0000	131.4304	131.4304	0.0355	0.0000	132.3186
Total	0.4362	2.4131	1.1180	0.0152		0.1897	0.1897		0.1897	0.1897	0.0000	131.4304	131.4304	0.0355	0.0000	132.3186

Mitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0732	0.7189	0.3763	5.0800e-003	0.0153	0.0266	0.0419	4.4600e-003	0.0254	0.0299	0.0000	60.3205	60.3205	3.7300e-003	8.7800e-003	63.0292
Worker	0.1451	0.1941	1.4072	9.3000e-004	0.0466	2.2100e-003	0.0488	0.0124	2.0500e-003	0.0145	0.0000	58.8037	58.8037	0.0116	9.1300e-003	61.8141
Total	0.2183	0.9129	1.7835	6.0100e-003	0.0619	0.0288	0.0907	0.0169	0.0275	0.0444	0.0000	119.1242	119.1242	0.0154	0.0179	124.8433

3.5 Paving - 2005

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category	tons/yr										MT/yr					
	Off-Road	0.0868	0.6250	0.2699	4.0400e-003		0.0396	0.0396		0.0396	0.0396	0.0000	36.1493	36.1493	7.0800e-003	0.0000
Paving	3.5000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0872	0.6250	0.2699	4.0400e-003		0.0396	0.0396		0.0396	0.0396	0.0000	36.1493	36.1493	7.0800e-003	0.0000	36.3264

Unmitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6200e-003	4.6000e-003	0.0374	2.0000e-005	1.8100e-003	5.0000e-005	1.8600e-003	4.8000e-004	4.0000e-005	5.3000e-004	0.0000	2.0702	2.0702	3.0000e-004	2.3000e-004	2.1470
Total	3.6200e-003	4.6000e-003	0.0374	2.0000e-005	1.8100e-003	5.0000e-005	1.8600e-003	4.8000e-004	4.0000e-005	5.3000e-004	0.0000	2.0702	2.0702	3.0000e-004	2.3000e-004	2.1470

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category	tons/yr										MT/yr					
	Off-Road	0.0868	0.6250	0.2699	4.0400e-003		0.0396	0.0396		0.0396	0.0396	0.0000	36.1492	36.1492	7.0800e-003	0.0000
Paving	3.5000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0872	0.6250	0.2699	4.0400e-003		0.0396	0.0396		0.0396	0.0396	0.0000	36.1492	36.1492	7.0800e-003	0.0000	36.3263

Mitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6200e-003	4.6000e-003	0.0374	2.0000e-005	1.7200e-003	5.0000e-005	1.7700e-003	4.6000e-004	4.0000e-005	5.0000e-004	0.0000	2.0702	2.0702	3.0000e-004	2.3000e-004	2.1470
Total	3.6200e-003	4.6000e-003	0.0374	2.0000e-005	1.7200e-003	5.0000e-005	1.7700e-003	4.6000e-004	4.0000e-005	5.0000e-004	0.0000	2.0702	2.0702	3.0000e-004	2.3000e-004	2.1470

3.6 Architectural Coating - 2005

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category	tons/yr									MT/yr						
	Archit. Coating	2.3815					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0274	0.1563	0.0759	1.0800e-003		0.0140	0.0140		0.0140	0.0140	0.0000	9.3194	9.3194	2.2500e-003	0.0000	9.3755
Total	2.4090	0.1563	0.0759	1.0800e-003		0.0140	0.0140		0.0140	0.0140	0.0000	9.3194	9.3194	2.2500e-003	0.0000	9.3755

Unmitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0141	0.0179	0.1455	9.0000e-005	7.0600e-003	1.8000e-004	7.2400e-003	1.8800e-003	1.7000e-004	2.0400e-003	0.0000	8.0600	8.0600	1.1700e-003	9.1000e-004	8.3591
Total	0.0141	0.0179	0.1455	9.0000e-005	7.0600e-003	1.8000e-004	7.2400e-003	1.8800e-003	1.7000e-004	2.0400e-003	0.0000	8.0600	8.0600	1.1700e-003	9.1000e-004	8.3591

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category	tons/yr									MT/yr						
Archit. Coating	2.3815					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	0.0274	0.1563	0.0759	1.0800e-003		0.0140	0.0140		0.0140	0.0140	0.0000	9.3194	9.3194	2.2500e-003	0.0000	9.3755
Total	2.4090	0.1563	0.0759	1.0800e-003		0.0140	0.0140		0.0140	0.0140	0.0000	9.3194	9.3194	2.2500e-003	0.0000	9.3755

Mitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0141	0.0179	0.1455	9.0000e-005	6.6900e-003	1.8000e-004	6.8700e-003	1.7900e-003	1.7000e-004	1.9500e-003	0.0000	8.0600	8.0600	1.1700e-003	9.1000e-004	8.3591
Total	0.0141	0.0179	0.1455	9.0000e-005	6.6900e-003	1.8000e-004	6.8700e-003	1.7900e-003	1.7000e-004	1.9500e-003	0.0000	8.0600	8.0600	1.1700e-003	9.1000e-004	8.3591

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	0.5942	1.7493	6.7692	0.0122	0.3306	0.0386	0.3692	0.0887	0.0368	0.1254	0.0000	468.8667	468.8667	0.0627	0.0518	485.8550
Unmitigated	0.5942	1.7493	6.7692	0.0122	0.3306	0.0386	0.3692	0.0887	0.0368	0.1254	0.0000	468.8667	468.8667	0.0627	0.0518	485.8550

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	297.70	297.70	297.70	869,137	869,137
Total	297.70	297.70	297.70	869,137	869,137

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
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No Rail	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.448732	0.076027	0.167351	0.170247	0.047084	0.008345	0.016720	0.029607	0.000676	0.000235	0.022181	0.001151	0.011643
Parking Lot	0.448732	0.076027	0.167351	0.170247	0.047084	0.008345	0.016720	0.029607	0.000676	0.000235	0.022181	0.001151	0.011643

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Unrefrigerated Warehouse-No Rail	3.6771e+006	0.0198	0.1803	0.1514	1.0800e-003		0.0137	0.0137		0.0137	0.0137	0.0000	196.2242	196.2242	3.7600e-003	3.6000e-003	197.3902
Total		0.0198	0.1803	0.1514	1.0800e-003		0.0137	0.0137		0.0137	0.0137	0.0000	196.2242	196.2242	3.7600e-003	3.6000e-003	197.3902

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	3.6771e+006	0.0198	0.1803	0.1514	1.0800e-003		0.0137	0.0137		0.0137	0.0137	0.0000	196.2242	196.2242	3.7600e-003	3.6000e-003	197.3902
Total		0.0198	0.1803	0.1514	1.0800e-003		0.0137	0.0137		0.0137	0.0137	0.0000	196.2242	196.2242	3.7600e-003	3.6000e-003	197.3902

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	4200	1.2212	6.0000e-005	1.0000e-005	1.2260
Unrefrigerated Warehouse-No Rail	1.90528e+006	553.9644	0.0251	5.1900e-003	556.1362
Total		555.1856	0.0251	5.2000e-003	557.3621

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	4200	1.2212	6.0000e-005	1.0000e-005	1.2260
Unrefrigerated Warehouse-No Rail	1.90528e+006	553.9644	0.0251	5.1900e-003	556.1362
Total		555.1856	0.0251	5.2000e-003	557.3621

6.0 Area Detail

6.1 Mitigation Measures Area

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	1.0418	3.0000e-005	2.7700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.2300e-003	4.2300e-003	2.0000e-005	0.0000	4.7300e-003
Unmitigated	1.0418	3.0000e-005	2.7700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.2300e-003	4.2300e-003	2.0000e-005	0.0000	4.7300e-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	0.2382					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8033					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.6000e-004	3.0000e-005	2.7700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.2300e-003	4.2300e-003	2.0000e-005	0.0000	4.7300e-003
Total	1.0418	3.0000e-005	2.7700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.2300e-003	4.2300e-003	2.0000e-005	0.0000	4.7300e-003

Mitigated

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	0.2382					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8033					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.6000e-004	3.0000e-005	2.7700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.2300e-003	4.2300e-003	2.0000e-005	0.0000	4.7300e-003
Total	1.0418	3.0000e-005	2.7700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.2300e-003	4.2300e-003	2.0000e-005	0.0000	4.7300e-003

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	91.7827	1.5505	0.0373	141.6461
Unmitigated	91.7827	1.5505	0.0373	141.6461

7.2 Water by Land Use

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated

Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 1.98977	2.0249	9.0000e-005	2.0000e-005	2.0328
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	47.4779 / 0	89.7578	1.5505	0.0372	139.6133
Total		91.7827	1.5505	0.0373	141.6461

Mitigated

Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 1.98977	2.0249	9.0000e-005	2.0000e-005	2.0328
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	47.4779 / 0	89.7578	1.5505	0.0372	139.6133
Total		91.7827	1.5505	0.0373	141.6461

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	19.6018	1.1584	0.0000	48.5627
Unmitigated	39.2036	2.3169	0.0000	97.1254

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.14	0.0284	1.6800e-003	0.0000	0.0704
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	192.99	39.1752	2.3152	0.0000	97.0550
Total		39.2037	2.3169	0.0000	97.1254

Bakersfield U-Haul - Kern-San Joaquin County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.07	0.0142	8.4000e-004	0.0000	0.0352
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	96.495	19.5876	1.1576	0.0000	48.5275
Total		19.6018	1.1584	0.0000	48.5627

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

Bakersfield U-Haul - Kern-San Joaquin County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	Number
----------------	--------

11.0 Vegetation

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	57.9240	0.0000	0.0000	57.9240

11.2 Net New Trees

Species Class

	Number of Trees	Total CO2	CH4	N2O	CO2e
		MT			
Miscellaneous	71	50.2680	0.0000	0.0000	50.2680
Pine	12	7.6560	0.0000	0.0000	7.6560
Total		57.9240	0.0000	0.0000	57.9240

Geotechnical Evaluation New U-Haul Facility 9407 South H Street Bakersfield, California

AMERCO Real Estate Company/U-Haul International
2727 North Central Avenue, Suite 5N | Phoenix, Arizona 85004

February 18, 2022 | Project No. 211847001



Geotechnical | Environmental | Construction Inspection & Testing | Forensic Engineering & Expert Witness

Geophysics | Engineering Geology | Laboratory Testing | Industrial Hygiene | Occupational Safety | Air Quality | GIS

Ninyo & Moore
Geotechnical & Environmental Sciences Consultants

Geotechnical Evaluation New U-Haul Facility 9407 South H Street Bakersfield, California

Ms. Sabrina Perez

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February 18, 2022 | Project No. 211847001



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1 INTRODUCTION

In accordance with your request, we have performed a geotechnical evaluation for the proposed new U-Haul Facility to be located at 9407 South H Street in Bakersfield, California. The approximate location of the site is depicted on Figure 1.

The purpose of our study was to evaluate the subsurface conditions and to provide design and construction recommendations regarding geotechnical aspects of the proposed project. This report presents the findings from our background review and subsurface exploration, results of our laboratory testing, conclusions regarding the subsurface conditions at the site, and geotechnical recommendations for design and construction of this project.

2 EXECUTIVE SUMMARY

A geotechnical evaluation has been conducted for the proposed new U-Haul facility to be constructed at 9407 South H Street in Bakersfield, California. Five borings were drilled to depths ranging from approximately 21½ to 50 feet below the ground surface. Based on the information obtained from our background review, subsurface exploration, and laboratory testing, it is our opinion that the proposed project is feasible from a geotechnical standpoint, provided that the recommendations presented in this report are incorporated into the design and construction of the project. Summarized below are our key conclusions and recommendations.

- The site is generally underlain by alluvial soils generally consisting of moist, loose to very dense, sandy silt, clayey sand, silty sand, poorly graded sand with silt, and poorly graded sand, and moist, stiff to hard, lean clay.
- Excavation of the on-site soils should be feasible with earthmoving equipment in good working order. The on-site soils should be considered as Type C soils in accordance with Occupational Safety and Health Administration (OSHA) regulations. Slope excavations or temporary shoring should be provided in accordance with OSHA regulations. The granular soils encountered at the site have little cohesion and will be subject to caving.
- Groundwater was not encountered during our subsurface exploration on January 11, 2022. The depth to groundwater at a monitoring well located approximately 4.1 miles southeast of the site ranges from approximately 22½ to 34 feet below the ground surface and an additional groundwater monitoring well located approximately 1.15 miles east of the site indicates that the depth to groundwater ranges from approximately 141 to 145 feet below the ground surface. Groundwater is not expected to impact the design and construction of the improvements.
- The site is not mapped within a State of California Seismic Hazards Zone as being potentially liquefiable (CalOES, 2015). In addition, groundwater was not encountered in our borings to the depths explored of up to about 50 feet. Accordingly, it is our opinion that liquefaction and liquefaction-related seismic hazards (e.g., dynamic settlement and/or lateral spreading) are not design considerations for the project.
- The subject site is not located within a State of California Earthquake Fault Zone (EFZ) (formerly known as an Alquist-Priolo Special Studies Zone). Based on our review of published

geologic maps. There are no known active faults underlying the site. The potential for surface fault rupture at the site is considered to be low.

- Our laboratory consolidation tests indicated that near-surface on-site soils may undergo hydro-collapse in the range of about 2 to 5 percent under the existing overburden pressure. Hydro-collapse may occur if the soils become saturated due to broken water pipelines, rising groundwater levels, or excessive irrigation and may cause distress, such as differential settlement, to the proposed structures and cracks in the hardscape, which will require additional maintenance.
- The proposed building can be supported on spread and continuous footings and/or mat foundations.
- The depth of the overexcavation beneath the building areas should extend approximately 10 feet below the proposed finished surface grade, and the overexcavated soils should be replaced as engineered fill compacted to 90 percent relative compaction per ASTM International (ASTM) test method D 1557 and moisture-conditioned to 2% above the optimum moisture or more.
- The lateral limits of overexcavation for the building area should extend to approximately 15 feet beyond the building perimeter, or to a distance equal to the depth of overexcavation, whichever is greater.
- Spread footings (isolated or continuous) should be at least 24 inches wide and extend 24 inches or more below the adjacent finished grade.
- Spread footings may be designed using a net allowable bearing capacity of 3,500 pounds per square foot (psf) for the minimum width and depth provided above. The allowable bearing capacity for spread footings may be increased by 500 psf for every foot of increase in width or depth up to a value of 4,500 psf.
- Mat foundations, if used, should be designed using a net allowable bearing capacity of 3,500 psf bearing on compacted fill.
- Cast-in-drilled-hole (CIDH) piers used for light poles should be designed using an allowable side friction value of 100 psf under static compression and an allowable resistance of 65 psf for uplift starting at a depth of 2 foot below the ground surface.
- The lateral capacity of the CIDH piers may be evaluated using a lateral bearing resistance of 350 psf per foot of depth, up to a value of 3,500 psf.
- A design modulus of subgrade reaction of 150 kips per cubic feet (kcf) can be used for the compacted subgrade soils in evaluating deflections.
- Rammed Aggregate Piers (RAPs; Geopiers or equivalent) can be used to improve the shear strength of foundation soils, reduce the settlement of the proposed structures, and provide additional drainage for subsurface layers. However, considering the depth of overexcavation recommended in this report, in our opinion, the use of RAPs is not justified economically due to the high mobilization costs of ground improvement construction equipment compared to grading equipment.
- Our laboratory corrosion testing indicates that the near-surface site soils can be classified as non-corrosive based on California Department of Transportation (Caltrans, 2021) corrosion guidelines.
- If storm water infiltration will be implemented as part of the project, additional subsurface exploration and percolation testing should be performed at the locations and depths of the planned infiltration facilities, which are presently unknown.

- Detailed construction drawings were not available for our review. When construction drawings are available, including foundation plans, they should be forwarded to Ninyo & Moore for review. Additional or revised recommendations may be appropriate. In addition, if storm water infiltration will be implemented as part of the project, additional subsurface exploration and percolation testing should be performed at the locations and depths of the planned infiltration facilities, which are presently unknown.

3 SCOPE OF SERVICES

Our scope of services included the following:

- Project coordination, planning, and scheduling of the subsurface exploration.
- Review of readily available background materials, including published geologic maps and literature, in-house information, aerial photographs, and plans provided by the client.
- Site reconnaissance to observe the general site conditions, mark the proposed boring locations, and coordinate with Underground Service Alert for utility clearance.
- Subsurface exploration consisting of drilling, logging, and sampling of five small-diameter, hollow-stem auger borings to depths of up to approximately 50 feet below the existing ground surface. The borings were logged by a representative of our firm and relatively undisturbed and bulk soil samples were collected at selected intervals for laboratory testing.
- Laboratory testing of representative soil samples. Laboratory tests included evaluation of in-situ moisture content and dry density, percentage of particles finer than the No. 200 sieve, Atterberg Limits, Proctor density and optimum moisture content, consolidation characteristics, direct shear strength, R-value, and soil corrosivity.
- Data compilation and engineering analysis of the information obtained from our background review, subsurface exploration, and laboratory testing.
- Preparation of this report presenting our findings, conclusions, and geotechnical recommendations pertaining to the geotechnical aspects of the design and construction of the proposed improvements.

4 SITE DESCRIPTION AND PROPOSED CONSTRUCTION

The site is located at 9407 South H Street in Bakersfield, California (Figure 1). The site consists of an approximately 11.45 acres of currently undeveloped land formerly used for agricultural purposes. The site is bounded on the west by California Highway 99, on the north by an unpaved road and industrial properties, on the east by South H Street, and on the south and east by residential properties. The existing ground surface at the site is tilled and covered with scattered dry grasses, hay, and/or old crop. Topographically, the project site is relatively flat with a ground surface elevation of approximately 348 to 350 feet above the mean sea level (United States Geological Survey [USGS], 2018a).

The proposed project currently consists of the design and construction of a new three-story, at-grade, storage building with a footprint of approximately 43,457 square feet. The building will be

located in the northwest corner of the property. A second single-story, at-grade, storage building with a footprint of 13,555 square feet is proposed in the northeast corner of the property. In addition, a 32,697 square foot, at grade, mechanical shop building is proposed within the southern portion of the site. Eight storage containers, each with a footprint of 1,200 square feet, will be located near the center of the property. Additional site improvements will include loading docks, display and parking areas, new utilities, access driveways, associated exterior flatwork and landscaping, and light poles (Amerco, 2021). We understand that grading for the project will generally include remedial grading, excavations for foundation and floor slab preparation, and utility installation via cut-and-cover trenching.

5 SUBSURFACE EVALUATION AND LABORATORY TESTING

Our subsurface exploration was performed on January 11, 2022, and consisted of drilling, logging, and sampling of five small-diameter borings using a track-mounted drill rig with 8-inch-diameter hollow-stem augers to depths ranging from approximately 21.5 to 50 feet below the ground surface. The approximate locations of the exploratory borings are shown on Figure 2. The borings were logged by a representative from our firm and bulk and relatively undisturbed soil samples were obtained at selected depths for laboratory testing. The borings were backfilled with onsite soil. The logs of the exploratory borings are presented in Appendix A.

Laboratory testing was performed on representative samples to evaluate in-situ moisture content and dry density, percentage of particles finer than the No. 200 sieve, Atterberg Limits, Proctor density and optimum moisture content, consolidation characteristics, direct shear strength, R-value, and soil corrosivity. The results of the in-situ moisture content and dry density tests are presented on the boring logs in Appendix A. The remaining laboratory test results are presented in Appendix B.

6 GEOLOGY AND SUBSURFACE CONDITIONS

6.1 Regional Geology

The project site is located on a broad, relatively flat southern portion of the Great Valley Geomorphic Province (Norris and Webb, 1990). The Great Valley extends nearly 500 miles north and south, separating the Sierra Nevada from the Coast Ranges by an average of 40 miles. The Great Valley surficial deposits generally consists of alluvial, flood, and delta plains of the Sacramento and San Joaquin Rivers and their tributaries. The Great Valley is divided into a northern segment, the Sacramento Valley, and a southern segment, the San Joaquin Valley. The project site, located within southern portion of the San Joaquin Valley, is underlain by silt, sand, and gravel alluvial fan deposits which are in turn underlain by a thick sedimentary sequence

(Norris and Webb, 1990). Geologic mapping by Smith (1964) indicates that the site is underlain by Quaternary-aged alluvial fan deposits (Figure 3).

6.2 Subsurface Conditions

Materials encountered during our subsurface exploration consisted of alluvium to the total depths explored of up to approximately 50 feet below the ground surface. The alluvium generally consisted of interbedded, moist, loose to very dense, sandy silt, clayey sand, silty sand, poorly graded sand with silt, and poorly graded sand, and moist, stiff to hard, lean clay. Detailed descriptions of the materials encountered in our borings are presented on the boring logs in Appendix A.

7 GROUNDWATER

Groundwater was not encountered in our borings at the time of drilling. Groundwater monitoring well data from the State of California Water Resources Control Board's GeoTracker website (2022) indicates that the depth to groundwater at a monitoring well located approximately 4.1 miles southeast of the site ranges from approximately 22.5 to 34 feet below the ground surface. An additional groundwater monitoring well, located approximately 1.15 miles east of the site indicates that the depth to groundwater ranges from approximately 141 to 145 feet below the ground surface. Fluctuations in groundwater levels may occur due to variations in precipitation, ground surface topography, subsurface stratification, irrigation, groundwater pumping, and other factors that may not have been evident at the time of our field evaluation.

8 FAULTING, SEISMICITY, AND GEOLOGIC HAZARDS

The project site is located in a seismically active area, as is the majority of central and southern California. The numerous faults in California include active, potentially active, and inactive faults. As defined by the California Geological Survey (CGS), active faults are faults that have ruptured within Holocene time, or within approximately the last 11,000 years. Potentially active faults are those that show evidence of movement during Quaternary time (approximately the last 1.6 million years) but for which evidence of Holocene movement has not been established. Inactive faults have not ruptured in the last approximately 1.6 million years. The approximate locations of major active faults in the region and their geographic relationship to the project sites are shown on Figure 4.

Based on our review of seismic hazard maps, geologic literature, and geologic maps, the site is not located within a State of California Earthquake Fault Zone (formerly known as Alquist-Priolo Special Studies Zone), and no active faults are known to cross the subject site. The principal

seismic and geologic hazards evaluated at the subject site are surface ground rupture, ground motion, liquefaction, and regional subsidence. A brief description of these hazards and the potential for their occurrences on site are discussed in the following sections.

8.1 Surface Ground Rupture

Based on our review of the referenced literature and our site reconnaissance, no active faults are known to cross the project site. Therefore, the probability of damage from surface fault rupture is considered to be low. However, lurching or cracking of the ground surface as a result of nearby seismic events is possible.

8.2 Site-Specific Seismic Ground Motion

Considering the proximity of the site to active faults capable of producing a maximum moment magnitude of 6.0 or more, the project area has a high potential for experiencing strong ground motion. The 2019 California Building Code (CBC) specifies that the risk-targeted maximum considered earthquake (MCE_R) ground motion response accelerations be used to evaluate seismic loads for design of buildings and other structures. Per the 2019 CBC, a site-specific ground motion hazard analysis shall be performed for structures on Site Class D with a mapped MCE_R , 5 percent damped, spectral response acceleration parameter at a period of 1 second (S_1) greater than or equal to 0.2g in accordance with Sections 21.2 and 21.3 of the American Society of Civil Engineers (ASCE) Publication 7-16 (2016) for the Minimum Design Loads and Associated Criteria for Building and Other Structures. We calculated that the S_1 for the site is equal to 0.373g using the 2022 Applied Technology Council (ATC) seismic design tool (web-based); therefore, a site-specific ground motion hazard analysis was performed for the project area.

The site-specific ground motion hazard analysis consisted of the review of available seismologic information for nearby faults and performance of probabilistic seismic hazard analysis (PSHA) and deterministic seismic hazard analysis (DSHA) to develop acceleration response spectrum curves corresponding to the MCE_R for 5 percent damping. Prior to the site-specific ground motion hazard analysis, we obtained the mapped seismic ground motion values and developed the general MCE_R response spectrum for 5 percent damping in accordance with Section 11.4 of ASCE 7-16 (ATC, 2022). The average shear wave velocity (V_s) for the upper 30 meters of soil (V_{s30}) is assumed to be 228 meters per second (m/s) (CGS/Wills et al., 2017) and the depths to $V_s = 1,000$ m/s and $V_s = 2,500$ m/s are assumed to be 90 meters and 5,800 meters, respectively (Southern California Earthquake Center Community Velocity Model).

The 2014 new generation attenuation (NGA) West-2 relationships were used to evaluate the site-specific ground motions. The NGA relationships that we used for developing the probabilistic and

deterministic response spectra are by Chiou and Youngs (2014), Campbell and Bozorgnia (2014), Boore, Stewart, Seyhan, and Atkinson (2014), and Abrahamson, Silva, and Kamai (2014). The Open Seismic Hazard Analysis software developed by USGS (USGS, 2020) was used for performing the PSHA. The Calculation of Weighted Average 2014 NGA Models spreadsheet by the Pacific Earthquake Engineering Research Center was used for performing the DSHA (Seyhan, 2014).

PSHA was performed for earthquake hazards having a 2 percent chance of being exceeded in 50 years multiplied by the risk coefficients per ASCE 7-16. The maximum rotated components of ground motions were considered in PSHA with 5 percent damping. For the DSHA, we analyzed accelerations from characteristic earthquakes on active faults within the region using the hazard curves and deaggregation plots at the site obtained from the USGS Unified Hazard Tool application (USGS, 2022b). A magnitude 8.1 event on the San Andreas Fault with a rupture distance of 43.4 kilometers from the site was evaluated to be the controlling earthquake. Hence, the deterministic seismic hazard analysis was performed for the site using this event and corrections were made to the spectral accelerations for the 84th percentile of the maximum rotated component of ground motion with 5 percent damping.

The site-specific MCE_R response spectrum was taken as the lesser of the spectral response acceleration at any period from the PSHA and DSHA, and the site-specific general response spectrum was determined by taking two-thirds of the MCE_R response spectrum with some conditions in accordance with Section 21.3 of ASCE 7-16. Figure 5 presents the site-specific MCE_R response spectrum and the site-specific design response spectrum. The general mapped design response spectrum calculated in accordance with Section 11.4 of ASCE 7-16 is also presented on Figure 5 for comparison. The site-specific spectral response acceleration parameters, consistent with the 2019 CBC, are provided in Section 12.2 for the evaluation of seismic loads on buildings and other structures. The site-specific maximum considered earthquake geometric mean (MCE_G) peak ground acceleration, PGA_M , was calculated as 0.550g.

8.3 Liquefaction Potential

Liquefaction is the phenomenon in which loosely deposited granular soils and non-plastic silts located below the water table undergo rapid loss of shear strength when subjected to strong earthquake-induced ground shaking. Ground shaking of sufficient duration results in the loss of grain-to-grain contact due to a rapid rise in pore water pressure, and causes the soil to behave as a fluid for a short period of time. Liquefaction is known generally to occur in saturated or near-saturated cohesionless soils at depths shallower than 50 feet below the ground surface. Liquefaction is also known to occur in relatively fine-grained soils (i.e., sandy silt and clayey silt)

with a plasticity index (PI) of less than 12 and an in-place moisture content more than 85 percent of the liquid limit (LL) and sensitive silts and clays with a PI more than 18. Factors known to influence liquefaction potential include composition and thickness of soil layers, grain size, relative density, groundwater level, degree of saturation, and both intensity and duration of ground shaking.

The project site is not located in an area mapped as a liquefaction hazard zone (CalOES, 2015). In addition, groundwater was not encountered in our borings to the depths explored of up to about 50 feet. Accordingly, it is our opinion that liquefaction and liquefaction related seismic hazards (e.g., dynamic settlement and/or lateral spreading) are not design considerations for the project.

8.4 Regional Subsidence

Subsidence is characterized as a sinking of the ground surface relative to surrounding areas, and can generally occur where deep, unconsolidated soil deposits are present. Regional land subsidence is typically associated with regional groundwater withdrawal, oil and/or natural gas withdrawal, hydro-compaction, or oxidation and compaction of peat soils following drainage of marshland (Faunt, 2009). Subsidence can result in the development of ground surface cracks, larger scale ground failures, such as surface faulting and/or earth fissuring, ground surface drainage problems due to permanent subsurface aquifer compaction, increased incidences of flooding, and sinkholes, differential settlement, and damaged wells in the vicinity of the groundwater removal equipment areas (Baum et al., 2008).

According to the USGS, the San Joaquin Valley where the project site is located, has been subject to historical subsidence due to groundwater pumping with some areas experiencing as much as 28 feet of historical ground subsidence (USGS, 2018b). In general, current groundwater practices have improved over the years to help reduce land subsidence due to groundwater pumping. Management strategies are used by governing agencies to store water for future use in an effort to meet water demands reliably. However, periods of drought and/or reduced surface water availability have the potential to cause renewed groundwater pumping and subsidence in the San Joaquin Valley.

8.5 Hydro-collapse

The potential for settlement due to inundation of the underlying soils caused by saturation due to storm runoff, broken water pipelines, rising groundwater levels, or excessive irrigation was evaluated using the consolidation tests performed in general accordance with the ASTM D 2435. Our testing was performed on granular soil samples from depths of approximately 15 to 16½ feet in boring B-1 and approximately 5 to 6½ feet in boring B-4.

Based on our laboratory test results, the near-surface site soils may be characterized as having a moderate to high degree of hydro-collapse potential.

9 LANDSLIDING

There are no mapped landslides on site or in the vicinity, and the site is not mapped as having the potential for seismically induced landslides (CGS, 2018). Based on this information and the location of the site, landsliding is not considered to be a potential hazard at the site.

10 TSUNAMIS AND SEICHES

Tsunamis are long wavelength, seismic, sea waves (long compared to ocean depth) generated by the sudden movements of the ocean floor during submarine earthquakes, landslides, or volcanic activity. Seiches are waves generated in a large, enclosed body of water. The project area is not mapped within an area considered susceptible to tsunamis or seiche inundation. Therefore, damage due to tsunamis or seiches is not a design consideration.

11 FLOOD HAZARDS

Based on review of the Kern Master Environmental Assessment Resource's Flood Plain and Dam Inundation Areas Map (Kern Council of Governments, 2004b), the site is located within a mapped dam inundation area for the Lake Isabella reservoir. Areas in the Lake Isabella inundation area would be subject to approximately 1 to 2 feet of sheet flooding. Based on our review of flood insurance rate maps for the project area (Federal Emergency Management Agency [FEMA], 2008), the project site is located within FEMA's designated Other Areas - Zone X, which includes areas assigned to be outside the 500-year floodplain.

12 RECOMMENDATIONS

Based on our understanding of the project, the following sections present our geotechnical recommendations for design and construction of the proposed building structures and other site improvements. The recommendations are based on the results of our subsurface evaluation and laboratory testing, our review of the referenced geologic materials, and our geotechnical analysis. The proposed construction should be performed in conformance with the recommendations presented in this report, project specifications, and appropriate agency standards.

12.1 Earthwork

Earthwork at the site is anticipated to consist of remedial grading of the near-surface soils, fill placement, foundation excavations, trenching and backfilling for new utilities, pavement construction, and finish grading for establishment of site drainage. Earthwork operations should

be performed in accordance with the requirements of the applicable governing agencies and the recommendations presented in the following sections of this report.

12.1.1 Construction Plan Review and Pre-Construction Conference

We recommend that the project plans be submitted to Ninyo & Moore for review to evaluate conformance to the geotechnical recommendations provided in this report. We further recommend that a pre-construction conference be held in order to discuss the grading recommendations presented in this report. The owner and/or their representative, the governing agencies' representatives, the civil engineer, Ninyo & Moore, and the contractor should be in attendance to discuss the work plan, project schedule, and earthwork requirements

12.1.2 Site Preparation

Prior to performing excavations or other earthwork, the site should be cleared of surface obstructions, deleterious materials, and vegetation, as well as surface soils containing organic materials. Existing utilities within the project limits (if any) should be re-routed or protected from damage by construction activities. Obstructions that extend below the finished grade should be removed and the resulting holes filled with compacted soil. Materials generated from the clearing operations should be removed from the project site and disposed of at a legal dump site.

12.1.3 Treatment of Near-Surface Soils

Our laboratory consolidation test results and field exploration indicated that near-surface alluvial soils may undergo hydro-collapse ranging from about 2 to 5 percent under the existing overburden pressure. In order to provide suitable support and reduce the potential for settlement of the proposed improvements, we recommend that the areas beneath the new buildings, including retaining walls for loading docks, be overexcavated and recompacted to a depth of approximately 10 feet below the proposed finished surface grade. The overexcavated soils should be replaced with engineered fill compacted to 90 percent relative compaction per ASTM D 1557 and moisture-conditioned to 2% or more above the optimum moisture content. The lateral limits of overexcavation for the building area should extend to approximately 15 feet beyond the outside edge of the footings or to a distance equal to the depth of overexcavation, whichever is greater.

Following the recommended overexcavation, the bottom of the excavation should expose relatively dense or stiff soils. The excavation bottom should be evaluated by our representative during the excavation work. Additional overexcavation of loose, soft, and/or

wet areas may be appropriate, depending on our observations during construction. Prior to placing new compacted fill, the exposed bottom should be scarified, moisture-conditioned, and re-compacted to a depth of approximately 8 inches. Care should be taken by the contractor to avoid undermining existing improvements located adjacent to the project site.

In order to provide suitable support and reduce the potential settlement of new and reconstructed pavements subject to vehicle traffic, we recommend overexcavating the upper approximately 24 inches of the surficial soils or to a depth that provides 12 inches of compacted fill beneath the pavement section, whichever is deeper. We also recommend that the bottom of sidewalks and/or hardscapes be underlain by 12 inches of compacted fill. The lateral limits of overexcavation for pavements and flatwork should extend to approximately 2 feet or to a distance equal to the depth of overexcavation, whichever is greater. The exposed subgrade should be evaluated by our representative during the excavation work. Loose, soft, and/or wet areas may need to be further overexcavated, depending on our observations during construction. Prior to placing new compacted fill, the exposed bottom should be scarified, moisture-conditioned, and re-compacted to a depth of approximately 8 inches.

12.1.4 Rammed Aggregate Piers

As an alternative to remedial grading to mitigate the unsuitable soil conditions at this site, the use of RAPs was considered. RAPs are vertical elements of crushed stone implemented at sites with soft/loose sediments that are prone to excessive settlement and/or possess high likelihood of liquefaction occurrence. RAPs (i.e., Geopier or equivalent) mainly serve to improve the shear strength of earth materials, reduce the settlement of the proposed structures, and provide additional drainage for subsurface layers. However, given the coarse-grained nature of the materials encountered at the site and the relatively shallow overexcavation depths recommended in this report, the use of RAPs is not justified economically for this project.

12.1.5 Excavations

We anticipate that excavations for general grading, overexcavation, foundation construction, loading docks, and new utilities within the alluvial soils at the site may be accomplished with backhoes, excavators, or other earthmoving equipment in good working condition. During excavations, the contractor should anticipate encountering oversize materials in on the on-site materials. The contractor should be prepared to take appropriate measures to address the presence of oversize materials.

12.1.6 Temporary Excavations

We recommend that trenches and excavations be designed and constructed in accordance with OSHA regulations. These regulations provide trench sloping and shoring design parameters for excavations up to 20 feet deep based on the soil types encountered. Excavations should be designed by the contractor's engineer based on site-specific geotechnical analyses. For planning purposes, we recommend that on-site fill and surficial soils (if encountered) be considered as OSHA Type C soil.

Temporary excavations should be constructed in accordance with OSHA recommendations. For trench or other excavations, OSHA requirements regarding personnel safety should be met by using appropriate shoring (including trench boxes) or by laying back the slopes no steeper than 1½:1 (horizontal to vertical) or flatter. Depending on excavation depths, shoring may be appropriate. Continuous shoring may be appropriate for trenches in friable cohesionless sands. Excavations should be performed in accordance with OSHA's regulations.

If shoring systems are used for site excavations, they should be designed for the anticipated soil conditions using the lateral earth pressure values shown on Figures 6 and 7 for temporary cantilevered shoring and braced excavation, respectively. The recommended design pressures are based on the assumption that the shoring system is constructed without raising the ground surface elevation behind the shored sidewalls of the excavation, that there are no surcharge loads, such as soil stockpiles and construction materials, and that no loads act above a 1:1 (horizontal to vertical) plane ascending from the base of the shoring system. For a shoring system subjected to the above-mentioned surcharge loads, the contractor should include the effect of these loads on the lateral earth pressures acting on the shored walls.

We anticipate that settlement of the ground surface will occur behind the shored excavation. The amount of settlement depends heavily on the type of shoring system, the contractor's workmanship, and soil conditions. To reduce the potential for distress to adjacent improvements, we recommend that the shoring system be designed to limit the ground settlement behind the shoring system to ½ inch or less. Possible causes of settlement that should be addressed include settlement during installation of the shoring elements, excavation for structure construction, construction vibrations, and removal of the support system. We recommend that shoring installation be evaluated carefully by the contractor prior to construction.

The contractor should retain a qualified and experienced engineer to design the shoring system. The shoring parameters presented in this report are minimum requirements, and the

contractor should evaluate the adequacy of these parameters and make appropriate modifications for their design. We recommend that the contractor take appropriate measures to protect workers. OSHA requirements pertaining to worker safety should be observed.

12.1.7 Fill Material

In general, the on-site soil should be suitable for reuse as general compacted fill, compacted structural fill, and trench backfill, provided they are free of trash, debris, roots, vegetation, or other deleterious materials. Compacted fill, including general compacted fill, compacted structural fill, and trench backfill, should generally be free of rocks or lumps of material in excess of 4 inches in diameter. Rocks or hard lumps larger than approximately 4 inches in diameter should be broken into smaller pieces or should be removed from the site. Fill used as structural backfill, should be comprised of granular, non-expansive soil that conforms to the latest edition of “Greenbook” Standard Specifications for Public Works Construction (Greenbook) for structural backfill (Greenbook Section 217-3). “Non-expansive” is defined as soil having an expansion index of 20 or less in accordance with ASTM D 4829.

Imported materials should consist of clean, non-expansive granular material that generally meets Greenbook criteria for structure backfill (Greenbook Section 217-3). Soil should also be tested for corrosive properties prior to importing. We recommend that imported materials meet the Caltrans (2021) criteria for non-corrosive soils (i.e., soils having a chloride concentration of 500 parts per million (ppm) or less, a soluble sulfate content of approximately 1,500 ppm or less, a pH value of 5.5 or higher, and a resistivity of 1,500 ohm-centimeters [ohm-cm] or higher). Materials for use as fill should be evaluated by the geotechnical consultant prior to importing. The contractor should be responsible for the uniformity of import material brought to the site.

12.1.8 Fill Placement and Compaction

General compacted fill, compacted structural fill, and trench backfill should be placed and compacted in accordance with project specifications and sound construction practices. The materials should be moisture-conditioned to slightly above the optimum laboratory moisture content. The lift thickness for fill soils will vary depending on the type of compaction equipment used, but fills should generally be placed in horizontal lifts not exceeding 8 inches in loose thickness. The materials should be compacted to a relative compaction of 90 percent as evaluated by ASTM D 1557. Special care should be taken to avoid pipe damage when compacting trench backfill above pipes. Compacted fill should be tested for specified compaction level by Ninyo & Moore.

12.2 Site-Specific Seismic Design Considerations

Design of the proposed improvements should be performed in accordance with the requirements of the governing jurisdictions and applicable building codes. Table 1 presents the site-specific spectral response acceleration parameters in accordance with the CBC (2019) guidelines.

Site Coefficients and Spectral Response Acceleration Parameters	Values
Site Class	D
Mapped Spectral Response Acceleration at 0.2-second Period, S_S	1.030g
Mapped Spectral Response Acceleration at 1.0-second Period, S_1	0.373g
Site-Specific Spectral Response Acceleration at 0.2-second Period, S_{MS}	1.327g
Site-Specific Spectral Response Acceleration at 1.0-second Period, S_{M1}	0.937
Site-Specific Design Spectral Response Acceleration at 0.2-second Period, S_{DS}	0.885
Site-Specific Design Spectral Response Acceleration at 1.0-second Period, S_{D1}	0.624
Site-Specific Maximum Considered Earthquake Geometric Mean (MCE _G) Peak Ground Acceleration, PGA_M	0.550g

12.3 Foundations

The proposed building structures may be supported on shallow spread foundations including square and continuous footings, and mat foundations bearing on fill material compacted in accordance with the recommendations presented in the Earthwork section of this report. Foundations should be designed in accordance with structural considerations and the following recommendations. In addition, requirements of the appropriate governing jurisdictions and applicable building codes should be considered in the design of the structures.

12.3.1 Spread Footings

Spread footings should extend 24 inches or more below the lowest adjacent finished grade. Continuous footings should have a width of 24 inches or more. Isolated pad footings should have a width of 24 inches or more and extend 24 inches or more below the lowest adjacent finish grade. Spread footings should be reinforced with a minimum of two No. 4 steel reinforcing bars, one placed near the top and one placed near the bottom of the footings, and further detailed in accordance with the recommendations of the structural engineer.

Footings, as described above and bearing on compacted fill soils with very low to low expansion potential, may be designed using a net allowable bearing capacity of 3,500 pounds per square foot (psf). The bearing capacity may be increased by 500 psf for every additional foot of increase in width and depth up to a value of 4,500 psf.

Total and differential settlements for footings designed and constructed in accordance with the above recommendations are estimated to be less than approximately 1 inch and ½ inch over a horizontal span of 40 feet, respectively.

Footings bearing on compacted fill may be designed using a coefficient of friction of 0.35, where the total frictional resistance equals the coefficient of friction times the dead load. Footings may be designed using a passive resistance of 350 psf per foot of depth for level ground condition up to a value of 3,500 psf. The allowable lateral resistance can be taken as the sum of the frictional resistance and passive resistance provided the passive resistance does not exceed one-half of the total allowable resistance. The passive resistance may be increased by one-third when considering loads of short duration such as wind or seismic forces.

12.3.2 Pole Foundations

We recommend that light poles and covered parking structures be supported by cast-in-drilled-hole (CIDH) piles. The light poles and covered parking structures typically impose relatively light axial loads on pile foundations and the pile dimensions will generally be controlled by the lateral load demand.

The drilled piers may be designed using an allowable side friction value of 100 psf under static compression and an allowable resistance of 65 psf for uplift starting at a depth of 1 foot below the ground surface. The lateral capacity of the drilled piers may be evaluated using a lateral bearing pressure of 350 psf per foot of depth, up to a value of 3,500 psf per foot of depth. Provided that isolated poles are not adversely affected by a ½-inch motion at the ground surface due to short-term lateral loads, a lateral bearing pressure of two times the indicated value can be used. The passive resistance may be considered to act on an area equal to the product of the effective width (two times the pier diameter) and the embedded length of the pier. The allowable bearing values may be increased by one-third when considering loading of short duration such as wind or seismic forces. These recommendations assume that the poles have a minimum spacing of three times the pole diameter.

The pile dimensions (i.e., diameter and embedment) should be evaluated by the project structural engineer. CIDH piles should be designed to derive support from side friction. The bottoms of the drilled holes should be cleaned of loose materials prior to placing steel and pouring concrete. Piles should be installed within specified limits of vertical and horizontal alignment and should not exceed a batter of two percent over the length. Further, the top of the piles should be within 3 inches of the surveyed location.

12.3.3 Slab-On-Grade

Floor slabs subjected to dead and live loads should be designed by the project structural engineer based on the anticipated loading conditions. Floor slabs should be underlain by compacted soil prepared per the recommendations presented in this report. We recommend that slabs be 6 inches thick and reinforced with No. 4 steel reinforcing bars placed 24 inches on-center (each way) and near the mid-height of the slab. Placement of reinforcement in the slab is vital for its satisfactory performance. The floor slab and foundation should be tied together by extending the slab reinforcements into the foundation.

The slab should be underlain by a 4-inch-thick, or more, layer of sand or gravel with a particle size of approximately $\frac{3}{8}$ -inch or smaller. Soils underlying the slab should be moisture-conditioned and compacted in accordance with the recommendations presented in this report prior to concrete placement. Joints should be constructed at intervals designed by the structural engineer to help reduce random cracking of the slab.

12.3.4 Mat Foundations

Proposed mat foundations may be designed using a net allowable bearing capacity of 3,500 psf founded on newly compacted fill over competent underlying materials. The total and differential settlements corresponding to this bearing load are estimated to be less than approximately 1 inch and $\frac{1}{2}$ inches over a horizontal span of 40 feet, respectively. Mat foundations typically experience some deflection due to loads placed on the mat and the reaction of the soils underlying the mat. A design modulus of subgrade reaction of 150 kcf may be used for the compacted subgrade soils in evaluating such deflections.

12.4 Retaining Walls

Retaining walls may be supported by spread footings designed in accordance with the recommendations presented in Section 12.3.1 of this report. Lateral earth pressures recommended for the design of yielding retaining walls are provided on Figure 8. Passive pressures may be increased by one-third when considering loads of short duration, including wind and seismic loads. Retaining walls should be backfilled with free-draining, granular, non-expansive material (Expansion Index 20 or less). Measures should be taken to reduce the potential for build-up of moisture behind the retaining walls. Drainage design should include free-draining backfill materials and perforated drains as described on Figure 9.

12.5 Underground Utilities

We anticipate that utility pipelines will be supported on compacted fill or native alluvium. The depths of the pipelines are not known; however, we anticipate that the pipe invert depths will not exceed 10 feet.

12.5.1 Pipe Bedding

We recommend that pipelines be supported on 6 inches or more of granular bedding material such as sand with a sand equivalent (SE) value of 30 or more. Bedding material should be placed and compacted around the pipe, and 12 inches or more above the top of the pipe in accordance with the current “Greenbook” Standard Specifications for Public Works. We do not recommend the use of crushed rock for bedding material. It has been our experience that the voids within a crushed rock material are sufficiently large enough to allow fines to migrate into the voids, thereby creating the potential for sinkholes and depressions to develop at the ground surface.

Special care should be taken not to allow voids beneath and around the pipe. Bedding material and compaction requirements should be in accordance with the recommendations of this report, the project specifications, and applicable requirements of the appropriate agencies. Compaction of the bedding material and backfill should proceed along both sides of the pipe concurrently and be compacted to 90 percent or more relative compaction as evaluated by ASTM D 1557.

12.5.2 Trench Backfill

Soils encountered at the site should generally be suitable for reuse as backfill for trenches provided they are free of organic material, clay lumps, debris, and rocks larger than approximately 4 inches in diameter. Rocks or hard lumps larger than approximately 4 inches in diameter should be broken into smaller pieces or should be removed from the site. Trench backfill should be compacted to a relative compaction of 90 percent as evaluated by ASTM D 1557. Lift thickness for backfill will depend on the type of compaction equipment utilized, but fill should generally be placed in lifts not exceeding 8 inches in loose thickness. Special care should be exercised to avoid damaging utilities during compaction of the backfill.

12.5.3 Modulus of Soil Reaction

The modulus of soil reaction is used to characterize the stiffness of soil backfill placed on the sides of buried flexible pipelines for the purpose of evaluating lateral deflection caused by the weight of the backfill above the pipe. We recommend that a modulus of soil reaction of

1,000 pounds per square inch (psi) be used for design, provided that granular bedding material is placed adjacent to the pipe, as recommended in this report.

12.6 Sidewalks and Hardscape

We recommend that new exterior concrete sidewalks and flatwork (hardscape) have a thickness of 4 inches and be reinforced per the structural engineer’s specifications. The hardscape should be underlain by 12 inches of compacted fill and installed with crack-control joints at an appropriate spacing as designed by the structural engineer to reduce the potential for shrinkage cracking. Positive drainage should be established and maintained adjacent to flatwork. To reduce the potential for differential offset, joints between the new hardscape and adjacent curbs, existing hardscape, building walls, and/or other structures, and between sections of new hardscape, should be doweled.

12.7 Preliminary Pavement Design

AC and Portland Cement Concrete (PCC) pavement sections have been designed for the proposed facility based on the subgrade soil conditions and our laboratory testing. The R-value of the subgrade soils was evaluated for a representative soil sample obtained from exploratory boring B-1. Laboratory R-value testing indicated an R-value of 54 for the surficial materials encountered. Flexible and rigid pavement analyses were performed using the methodology outlined in the Caltrans Highway Design Manual (Caltrans, 2019b) and the Navy Pavement Design Manual (Naval Facilities Engineering Command [NAVFAC], 1982). The analyses assume a 20-year design life for new pavements and Traffic Indices (TI) of 5, 7, and 8. The TIs of 5 and 7 are generally used for parking areas and driveways subjected to light passenger vehicles and periodic truck traffic. We anticipate that a TI of 8 would be used for truck and trailer traffic. Based on the design R-value and TIs, the recommended pavement structural sections are listed in Table 2.

Traffic Index	AC over CAB or AC over CMB (inches)	Full Depth AC (inches)	Full Depth PCC (inches)
≤5.0	3 over 4	4	5½
7.0	4 over 4½	6½	8½
8.0	5 over 4½	7½	9½

Notes:
AC – Asphalt Concrete
CAB – Crushed Aggregate Base
CMB – Crushed Miscellaneous Base
PCC – Portland Cement Concrete

Subgrade soils in areas to be paved should be prepared as recommended in the Earthwork section of this report. Crushed aggregate base (CAB) or crushed miscellaneous base (CMB)

material should conform to the latest edition of the Standard Specifications for Public Works Construction “Greenbook,” Section 200. CAB/CMB should be compacted to a relative compaction of 95 percent as evaluated by ASTM D 1557, and should be placed at slightly above the optimum moisture content as evaluated by ASTM D 1557. AC should conform to Section 203 of the Greenbook and should be compacted to a relative compaction of 95 percent. Pavement sections should be selected based on actual anticipated traffic loading conditions and evaluation of the subgrade materials at the time of construction. We recommend that the paving operations be observed and tested by Ninyo & Moore, and that mix designs for the various pavements be made by a specialized engineering company.

12.8 Corrosivity

Laboratory testing was performed on one representative sample of near-surface soils to evaluate soil pH, electrical resistivity, water-soluble chloride content, and water-soluble sulfate content. The soil pH and electrical resistivity tests were performed in general accordance with California Test Method (CT) 643. Chloride content test was performed in general accordance with CT 422. Sulfate testing was performed in general accordance with CT 417. The laboratory test results are presented in Appendix B.

The chloride content of the sample tested was approximately 35 ppm. The sulfate content was approximately 10 ppm. The soil pH of the sample was approximately 7.1, and the electrical resistivity measured in the laboratory was approximately 3,038 ohm-cm. Based on the laboratory test results and Caltrans (2021) criteria, the project site can be classified as a non-corrosive site, which is defined as having earth materials with less than 500 ppm chlorides, less than 1,500 ppm of sulfates, a pH of 5.5 or more, or an electrical resistivity of more than 1,500 ohm-cm. The results of the corrosivity tests are presented in Appendix B.

12.9 Concrete Placement

Concrete in contact with soil or water that contains high concentrations of water-soluble sulfates can be subject to premature chemical and/or physical deterioration. Based on the American Concrete Institute (ACI) criteria (2016), the potential for sulfate attack is negligible for water-soluble sulfate contents in soil ranging from 0.00 to 0.10 percent by weight and moderate for water-soluble sulfate contents ranging from 0.10 to 0.20 percent by weight. The potential for sulfate attack is severe for water-soluble sulfate contents ranging from 0.20 to 2.00 percent by weight and very severe for water-soluble sulfate contents over 2.00 percent by weight. The sample tested during this evaluation indicated water-soluble sulfate contents of approximately 0.001 percent by weight (i.e., about 10 ppm). Accordingly, the on-site soils are considered to have

a negligible potential for sulfate attack. Per ACI (2016), Type II cement is appropriate for the site improvements. However, due to the potential variability of soils on site, consideration should be given to using Type II/V cement for the project.

In order to reduce the potential for shrinkage cracks in the concrete during curing, we recommend that the concrete for the proposed structures be placed with a slump of 4 inches based on ASTM C 143. The slump should be checked periodically at the site prior to concrete placement. We further recommend that concrete cover over reinforcing steel for foundations be provided in accordance with CBC (2019). The structural engineer should be consulted for additional concrete specifications.

12.10 Drainage

Positive surface drainage is imperative for satisfactory site performance. Positive drainage should be provided and maintained to transport surface water away from foundations and other site improvements. Positive drainage is defined as a slope of 2 percent or more over a distance of 5 feet or more away from the foundations. Surface water should not be allowed to pond adjacent to foundation elements.

13 CONSTRUCTION OBSERVATION

The recommendations provided in this report are based on our understanding of the proposed project and our evaluation of the data collected based on subsurface conditions observed in our exploratory borings. It is imperative that the geotechnical consultant checks the subsurface conditions during construction.

During construction, we recommend that the duties of the geotechnical consultant include, but not be limited to:

- Observing clearing, grubbing, and removals.
- Observing excavation, placement, and compaction of fill, including trench backfill.
- Evaluating on-site soil for suitability of its use as engineered fill/structural backfill prior to placement.
- Evaluating imported materials prior to their use as fill, if any.
- Performing field tests to evaluate fill compaction.
- Observing foundation excavations for bearing material prior to placement of reinforcing steel or concrete.

The recommendations provided in this report are based on the assumption that Ninyo & Moore will provide geotechnical observation and testing services during construction. In the event that the services of Ninyo & Moore are not used during construction, we request that the selected consultant provide the owner with a letter (with a copy to Ninyo & Moore) indicating that they fully understand Ninyo & Moore's recommendations and that they are in full agreement with the design parameters and recommendations contained in this report.

14 LIMITATIONS

The field evaluation, laboratory testing, and geotechnical analyses presented in this geotechnical report have been conducted in general accordance with current practice and the standard of care exercised by geotechnical consultants performing similar tasks in the project area. No warranty, expressed or implied, is made regarding the conclusions, recommendations, and opinions presented in this report. There is no evaluation detailed enough to reveal every subsurface condition. Variations may exist and conditions not observed or described in this report may be encountered during construction. Uncertainties relative to subsurface conditions can be reduced through additional subsurface exploration. Additional subsurface evaluation will be performed upon request.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Ninyo & Moore should be contacted if the reader requires additional information or has questions regarding the content, interpretations presented, or completeness of this document.

This report is intended for design purposes only. It does not provide sufficient data to prepare an accurate bid by contractors. It is suggested that the bidders and their geotechnical consultant perform an independent evaluation of the subsurface conditions in the project areas. The independent evaluations may include, but not be limited to, review of other geotechnical reports prepared for the adjacent areas, site reconnaissance, and additional exploration and laboratory testing.

Our conclusions, recommendations, and opinions are based on an analysis of the observed site conditions. If geotechnical conditions different from those described in this report are encountered, our office should be notified, and additional recommendations, if warranted, will be provided upon request. It should be understood that the conditions of a site could change with time as a result of natural processes or the activities of man at the subject site or nearby sites. In addition, changes to the applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The findings of this report may,

therefore, be invalidated over time, in part or in whole, by changes over which Ninyo & Moore has no control.

This report is intended exclusively for use by the client. Any use or reuse of the findings, conclusions, and/or recommendations of this report by parties other than the client is undertaken at said parties' sole risk.

15 REFERENCES

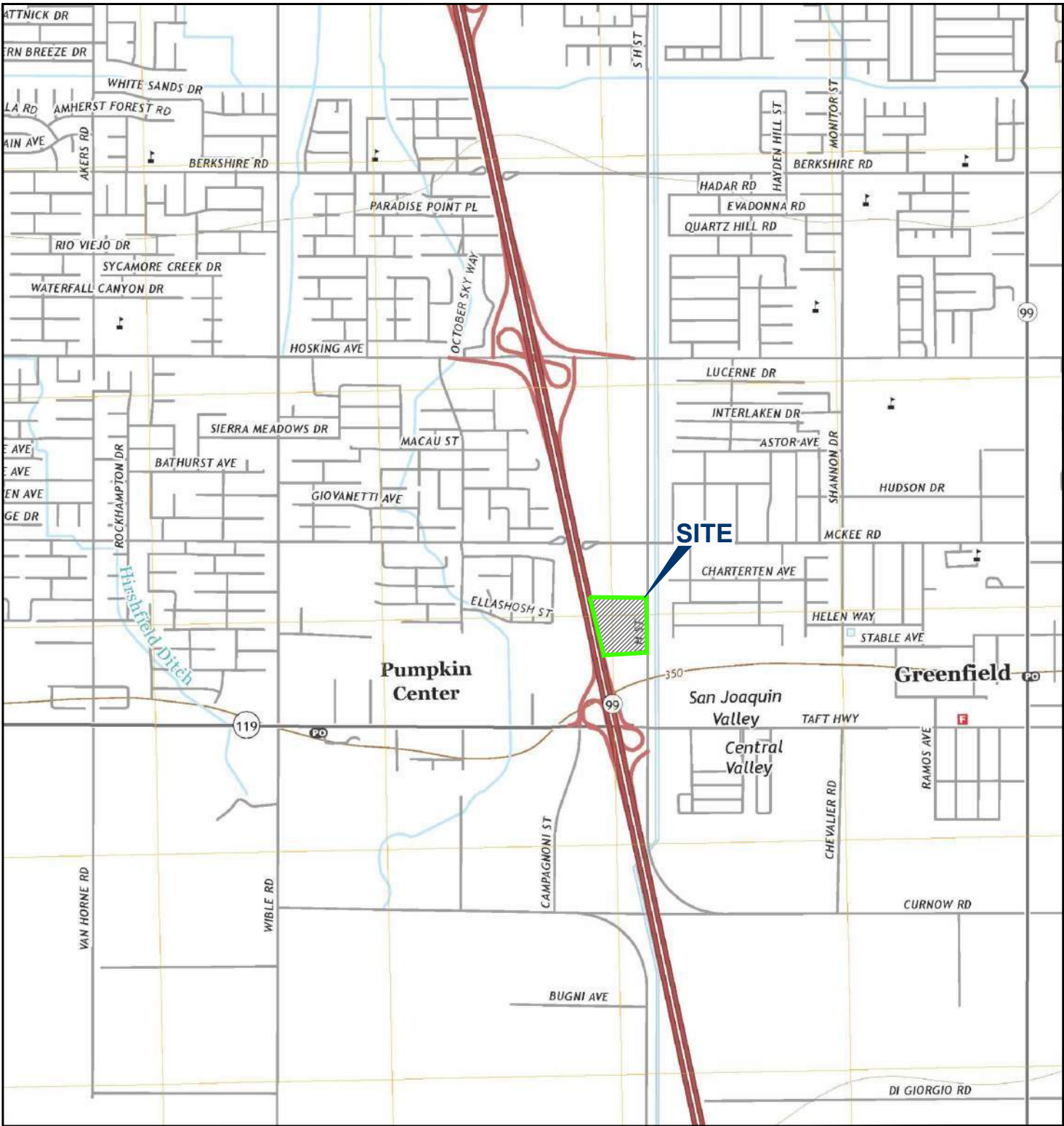
- Abrahamson, N.A., Silva, W.J. and Kamai, R., 2014, Summary of the ASK14 Ground Motion Relation for Active Crustal Regions, *Earthquake Spectra*: Vol. 30, No. 3, pp. 1025-1055, dated August.
- American Concrete Institute (ACI), 2015, *Building Code Requirements for Structural Concrete (ACI 318-14) and Commentary (ACI 318-14)*.
- Amerco Real Estate Company, 2021, *Conceptual Site Plan, U-Haul at Bakersfield, 9407 South H Street, Bakersfield, CA 93313*, dated December 14.
- American Concrete Institute (ACI), 2016, *ACI Manual of Concrete Practice*.
- American Society of Civil Engineers (ASCE), 2016, *Minimum Design Loads and Associated Criteria for Building and Other Structures*, ASCE Standard 7-16.
- Applied Technology Council (ATC), 2022, *Hazards by Location*, <https://hazards.atcouncil.org/#/>.
- ASTM International (ASTM), 2016, *Annual Book of ASTM Standards*, West Conshohocken, Pennsylvania.
- Baum, R.L., Galloway, D.L., and Harp, E.L., 2008, *Landslide and Land Subsidence Hazards to Pipelines*, United States Geological Survey, Open File Report 2008-1164.
- Boore, D.M., Stewart, J.P., Seyhan, E., and Atkinson, G.M., 2014, NGA-West2 Equations for Predicting PGA, PGV, and 5% Damped PSA for Shallow Crustal Earthquakes, *Earthquake Spectra*, Vol. 30, No. 3, pp. 1057-1085, dated August.
- Bowles, J.E., 1996, *Foundation Analysis and Design*, Fifth Edition, The McGraw-Hill Companies, Inc.
- Building Seismic Safety Council, 2009, *National Earthquake Hazards Reduction Program (NEHRP) Recommended Seismic Provisions for New Buildings and Other Structures (FEMA P-750)*.
- California Building Standards Commission, 2019, *California Building Code: California Code of Regulations, Title 24, Part 2, Volumes 1 and 2*, based on the 2018 International Building Code.
- California Department of Conservation, Division of Mines and Geology, State of California (CDMG), 1965 (fourth printing 1992), *Geologic Map of California, Bakersfield Sheet, Scale 1:250,000*.
- California Department of Transportation (Caltrans), 2019a, *CalME, Version 3.0.0*, dated June.
- California Department of Transportation (Caltrans), 2019b, *Highway Design Manual*.
- California Department of Transportation (Caltrans), 2021, *Corrosion Guidelines, Version 3.2*, Division of Engineering Services, Materials Engineering and Testing Services, Corrosion Technology Branch, dated May.
- California Department of Transportation (Caltrans), 2022, *ARS Online Web Tool, version 3.0.2*, <https://arsonline.dot.ca.gov/>.
- California Geological Survey (CGS), 2008, *Guidelines for Evaluating and Mitigating Seismic Hazards in California*, Special Publication 117A, dated September 11.
- California Geological Survey (CGS), 2018, *Earthquake Fault Zones, A Guide for Government Agencies, Property Owners/Developers, and Geoscience Practitioners for Assessing Fault Rupture Hazards in California: Special Publication 42*.

- California Geological Survey (CGS), C.J. Wills, C.I. Gutierrez, F.G. Perez, and D.B. Branum, 2017, CGS Map Sheet 48: Shear-wave Velocity in Upper 30m of Surficial Geology (Vs30);, dated May 24.
- California Governor's Office of Emergency Services (CalOES), 2015, MyHazards Database System, <https://myhazards.caloes.ca.gov/>
- Campbell, K.W., and Bozorgnia, Y., 2014, NGA-West2 Ground Motion Model for the Average Horizontal Components of PGA, PGV, and 5% Damped Linear Acceleration Response Spectra, *Earthquake Spectra*, Vol. 30, No. 3, pp. 1087-1115, dated August.
- Chiou, B. S.-J., and Youngs, R.R., 2014, Update of the Chiou and Youngs NGA Model for the Average Horizontal Component of Peak Ground Motion and Response Spectra, *Earthquake Spectra*, August 2014, Vol. 30, No. 3, dated August.
- Faunt, C.C., ed., 2009, *Groundwater Availability of the Central Valley Aquifer, California*: U.S. Geological Survey Professional Paper 1766.
- Federal Emergency Management Agency (FEMA), 2008, Flood Insurance Rate Map, City of Bakersfield, Map Number 06029C2300E, dated September 26.
- Google Earth Pro, 2022, Application for Viewing Aerial Photographs, Website: <http://earth.google.com>.
- Historical Aerials, 2022, www.historicaerials.com.
- Jennings, C.W., 2010, Fault Activity Map of California and Adjacent Areas: California Geological Survey, California Geological Map Series, Map No. 6, 1:750,000.
- Kern Council of Governments, 2004a, Fault Zones and Steep Slopes, Kern Master Environmental Assessment Resource.
- Kern Council of Governments, 2004b, Flood Plain & Dam Inundation Areas, Kern Master Environmental Assessment Resource.
- Kern County Planning Department, 1964, Seismic Hazard, Atlas 5 D I, Conner Quadrangle, Kern County, California.
- Naval Facilities Engineering Command (NAVFAC), 1982, Foundations and Earth Structures Design Manuals, dated May.
- Ninyo & Moore, 2021, Revised Proposal for Geotechnical Evaluation, Proposed U-Haul Facility, 9407 South H Street, Bakersfield, California, Proposal No. 04-03406C, dated November 30.
- Norris, R.M., and Webb, R.W., 1990, *Geology of California*, Second Edition: John Wiley & Sons.
- Public Works Standard, Inc., 2018, The "Greenbook": Standard Specifications for Public Works Construction, with Errata No. 1, dated 2019: BNI Building News, Vista, California.
- Seyhan, E., 2014, Weighted Average 2014 NGA West-2 GMPE, Pacific Earthquake Engineering Research Center.
- Smith, A.R., 1964, Geologic map of California: Bakersfield sheet, California Division of Mines and Geology, series unknown, 1:250,000.
- Southern California Earthquake Center (SCEC), 2012a, SCEC Community Velocity Model, Version 4, Iteration 26, Basin Depth.
- Southern California Earthquake Center (SCEC), 2012b, SCEC/Harvard Community Velocity Model, Version 11.9.0 Basin Depth.
- State of California, California Governor's Office of Emergency Services (CalOES), 2022, My Hazards, <https://myhazards.caloes.ca.gov/>.

- State of California, State Water Resources Control Board (SCWRCB), 2022, GeoTracker Database System, <http://geotracker.swrcb.ca.gov/>.
- Structural Engineers Association of California (SEAOC) and California Office of Statewide Health Planning and Development (OSHPD), 2022, Web Based Seismic Design Maps Tool; <https://seismicmaps.org>.
- United States Department of the Interior Geological Survey (USGS), 1965, Water Supply Paper, Plate 1, Map Showing Geomorphic Units in the Southern Part of the San Joaquin Valley, California.
- United States Geological Survey, 2008, National Seismic Hazard Maps - Fault Parameters, https://earthquake.usgs.gov/cfusion/hazfaults_2008_search/query_main.cfm
- United States Geological Survey (USGS), 2018a, USGS US Topo 7.5-Minute Map for Conner, CA: USGS - National Geospatial Technical Operations Center (NGTOC), dated August 28.
- United States Geological Survey (USGS), 2018b, Areas of Land Subsidence in California, Website: http://ca.water.usgs.gov/land_subsidence/california-subsidence-areas.html, accessed December 7.
- United States Geological Survey (USGS) and Southern California Earthquake Center (SCEC), 2020, Open Seismic Hazard Analysis, version 2.0, <http://www.opensha.org/>.
- United States Geological Survey (USGS), 2022a, Quaternary Fault and Fold Database of the United States, <https://www.usgs.gov/natural-hazards/earthquake-hazards/hazards>.
- United States Geological Survey (USGS), 2022b, Unified Hazard Tool; <https://earthquake.usgs.gov/hazards/interactive/>.
- Wills, C.J., and Clahan, L.B., 2006, Developing a Map of Geologically Defined Site-Condition Categories for California, Bulletin of the Seismological Society of America, v. 96, no. 4A, p. 1483–1501.
- Wills, C.J., Gutierrez, C.I., Perez, F.G., and Branum, D.M., 2015, A next-generation Vs30 map for California based on geology and topography, Bulletin of the Seismological Society of America, 105, no 6, p. 3083-3091.



FIGURES



1_211847001_SL.dwg 02/09/2022 GK

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE. | REFERENCE: USGS, 2018.

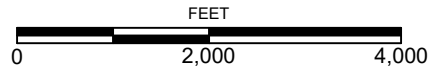
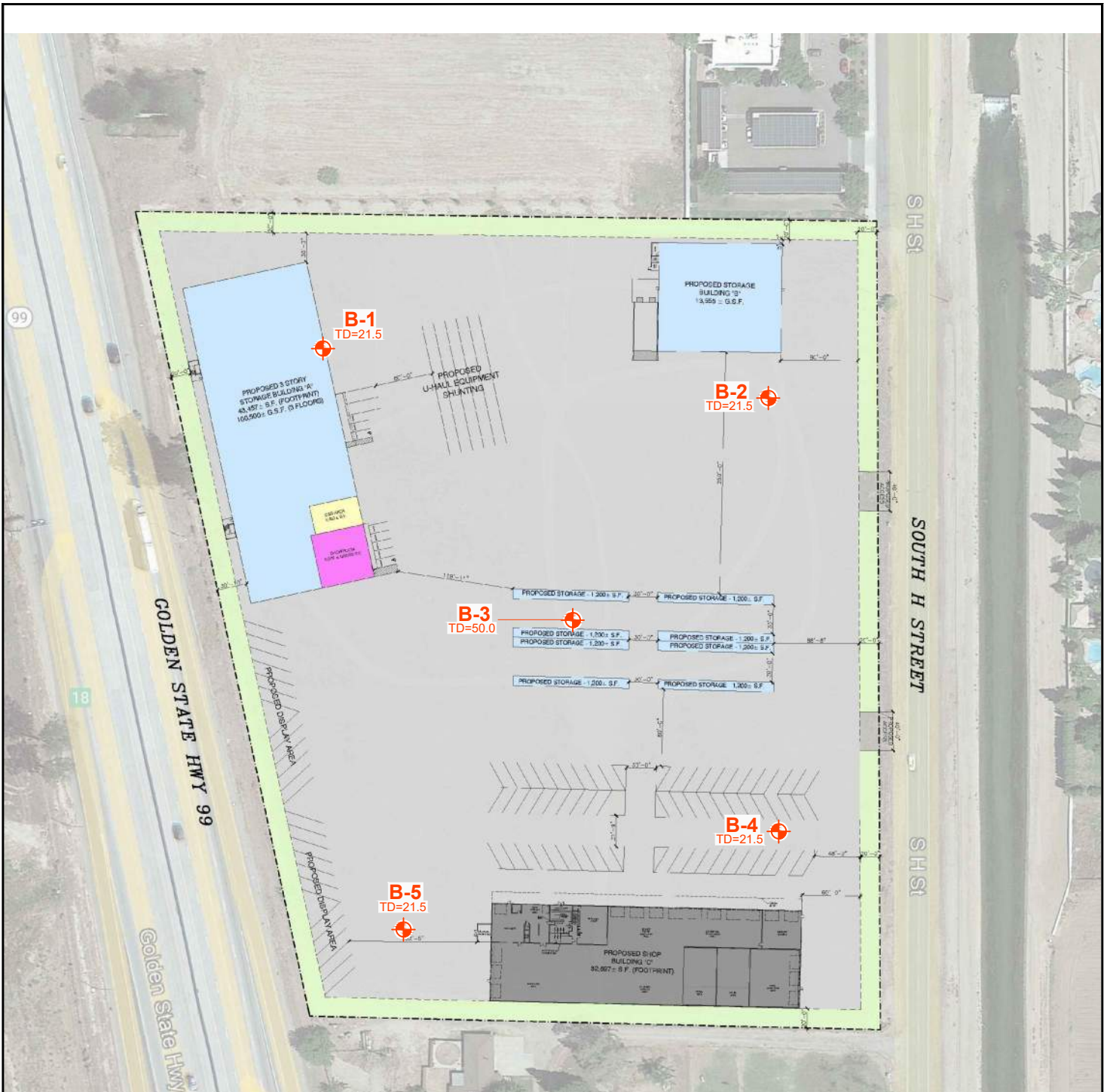



FIGURE 1



LEGEND

B-5  BORING;
TD=21.5 TD=TOTAL DEPTH IN FEET

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE. | REFERENCE: AMERCO, 2021.

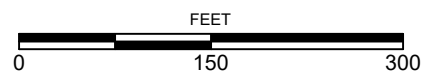
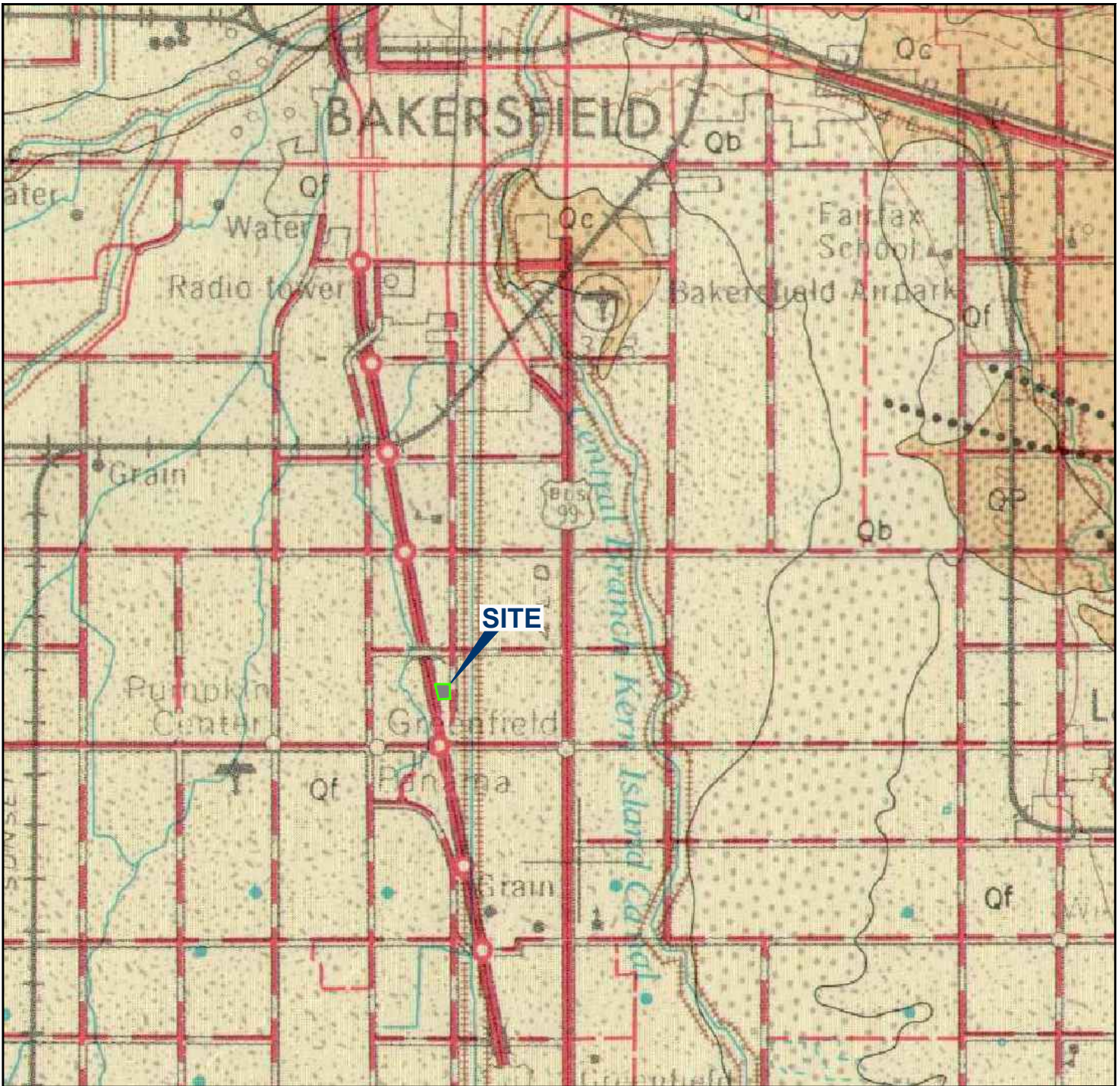


FIGURE 2

SITE PLAN AND BORING LOCATIONS

NEW U-HAUL FACILITY
BAKERSFIELD, CALIFORNIA



REFERENCE: GEOLOGIC MAP OF CALIFORNIA, BAKERSFIELD, 1965.

LEGEND

	FAN DEPOSITS		PLEISTOCENE NONMARINE
	BASIN DEPOSITS		GEOLOGIC CONTACT

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

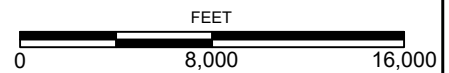


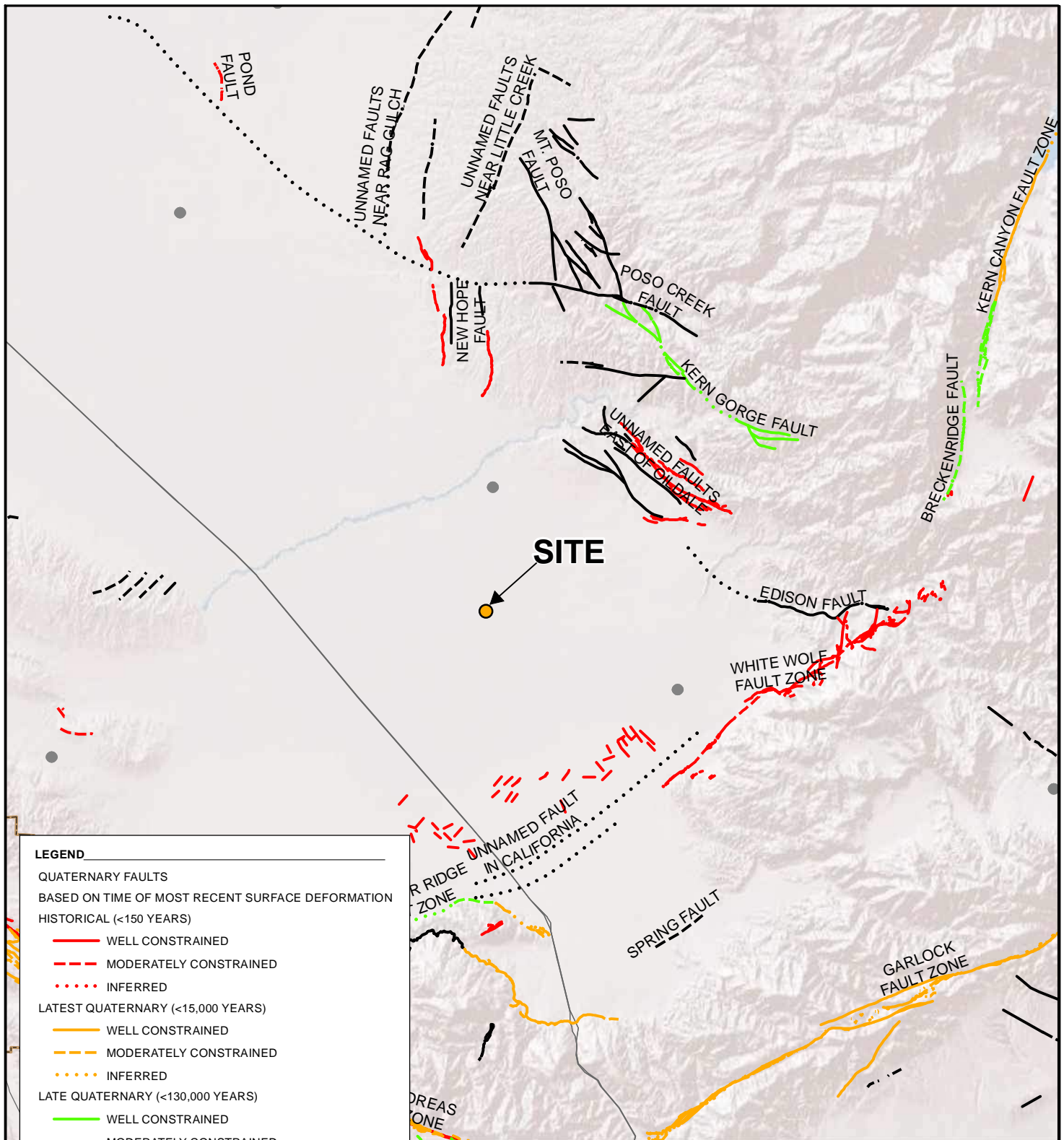
FIGURE 3

REGIONAL GEOLOGY

NEW U-HAUL FACILITY
BAKERSFIELD, CALIFORNIA



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LEGEND

- QUATERNARY FAULTS
 BASED ON TIME OF MOST RECENT SURFACE DEFORMATION
- HISTORICAL (<150 YEARS)
- WELL CONSTRAINED
 - - - MODERATELY CONSTRAINED
 - INFERRED
- LATEST QUATERNARY (<15,000 YEARS)
- WELL CONSTRAINED
 - - - MODERATELY CONSTRAINED
 - INFERRED
- LATE QUATERNARY (<130,000 YEARS)
- WELL CONSTRAINED
 - - - MODERATELY CONSTRAINED
 - INFERRED
- UNDIFFERENTIATED QUATERNARY (<1.6 MILLION YEARS)
- WELL CONSTRAINED
 - - - MODERATELY CONSTRAINED
 - INFERRED

SOURCES: CALIFORNIA GEOLOGICAL SURVEY, ACCESSED FEBRUARY 09, 2022, AT: <https://www.usgs.gov/natural-hazards/earthquake-hazards/faults/>; ESRI, 2021.



NOTE: DIRECTIONS, DIMENSIONS AND LOCATIONS ARE APPROXIMATE.

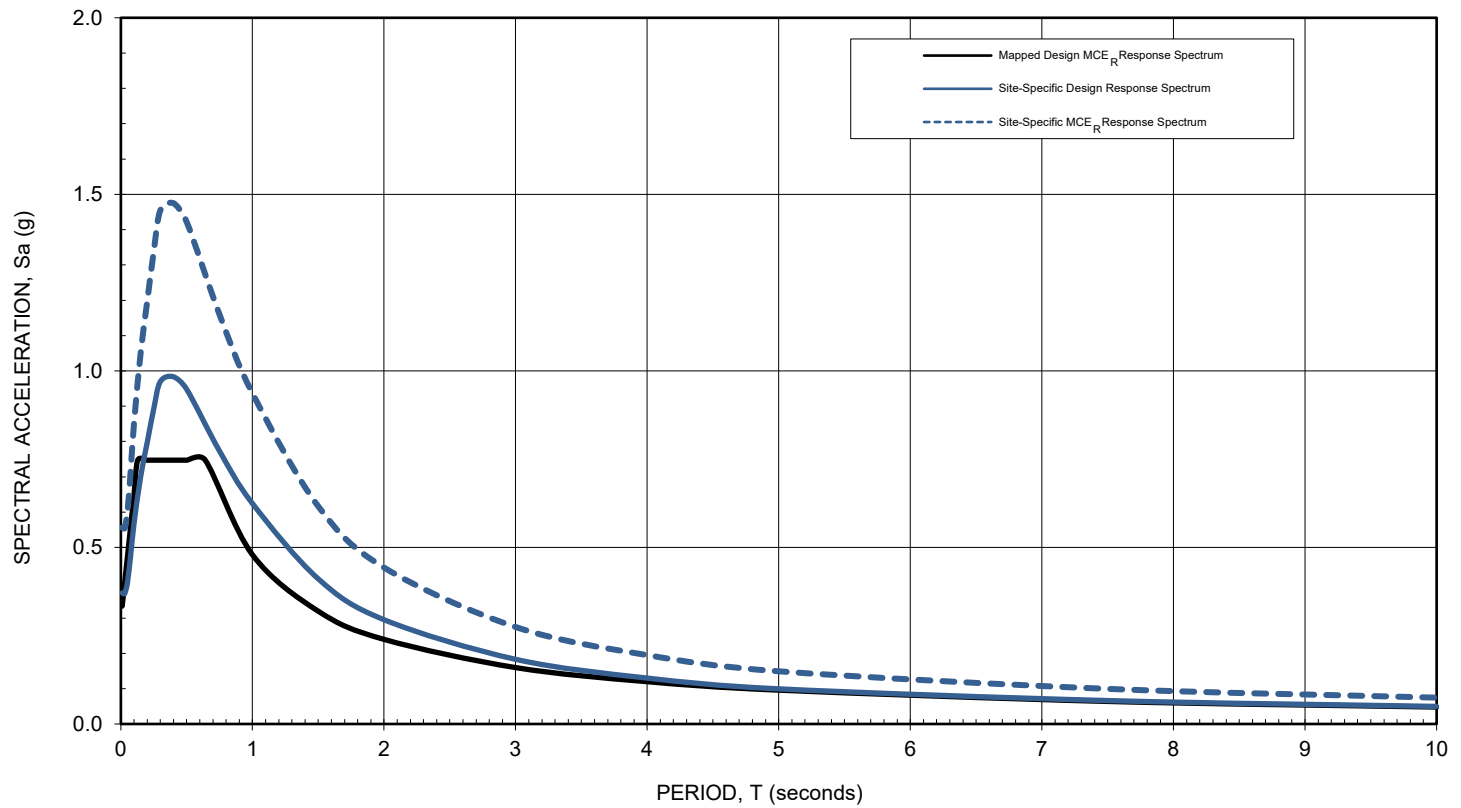
FIGURE 4

FAULT LOCATIONS
 NEW U-HAUL FACILITY
 BAKERSFIELD, CALIFORNIA

PERIOD (seconds)	SITE-SPECIFIC MCE _R RESPONSE SPECTRUM Sa (g)	SITE-SPECIFIC DESIGN RESPONSE SPECTRUM Sa (g)
0.010	0.556	0.371
0.020	0.554	0.369
0.030	0.555	0.370
0.050	0.600	0.400
0.075	0.719	0.479
0.100	0.852	0.568
0.150	1.050	0.700
0.200	1.195	0.797
0.250	1.339	0.893
0.300	1.454	0.970
0.400	1.475	0.983

PERIOD (seconds)	SITE-SPECIFIC MCE _R RESPONSE SPECTRUM Sa (g)	SITE-SPECIFIC DESIGN RESPONSE SPECTRUM Sa (g)
0.500	1.422	0.948
0.750	1.159	0.773
1.000	0.937	0.624
1.500	0.617	0.411
2.000	0.443	0.295
3.000	0.275	0.183
4.000	0.195	0.130
5.000	0.149	0.099
7.500	0.099	0.066
10.000	0.075	0.050

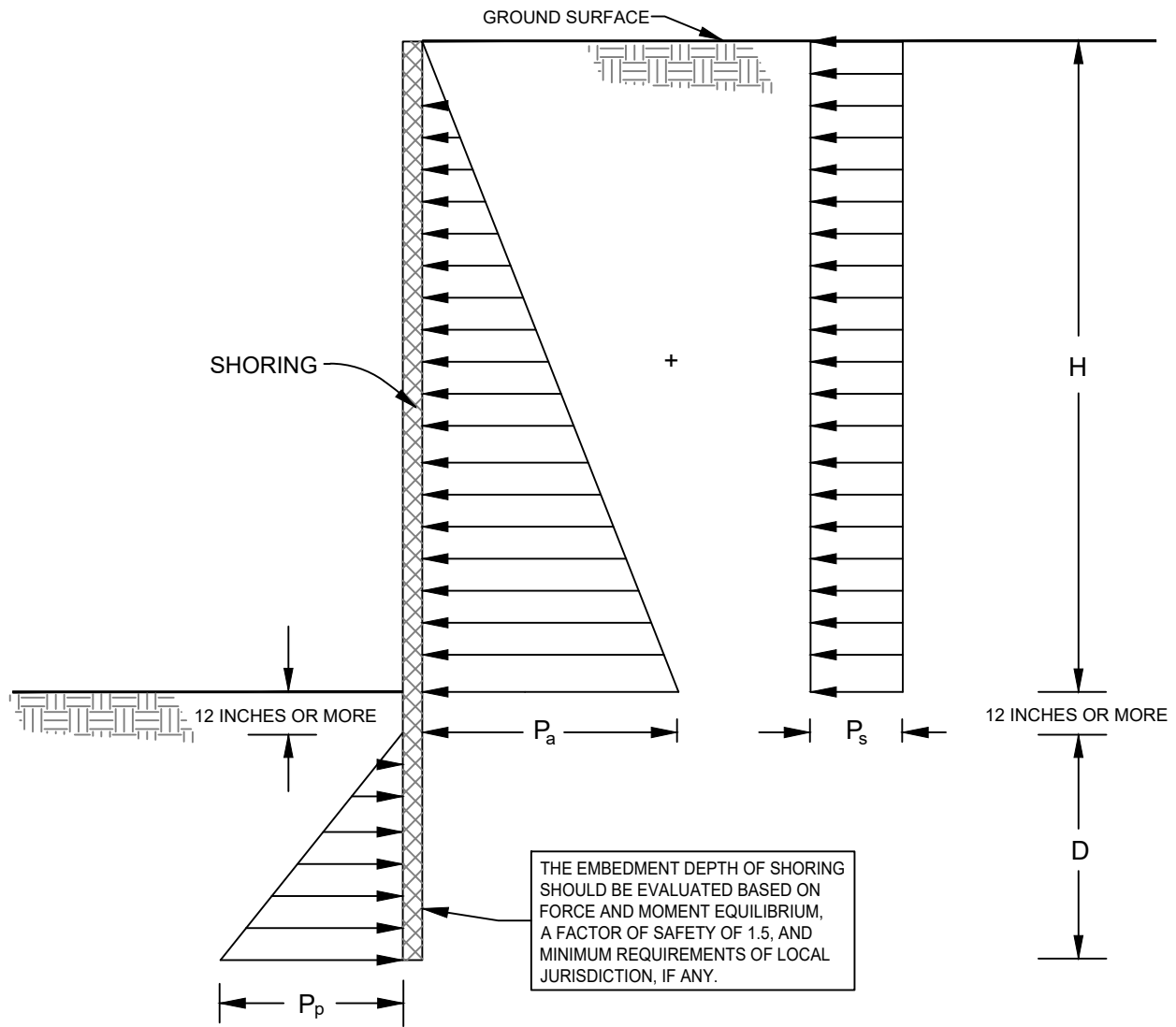
$S_{DS} = 0.885 \text{ g}$ | $S_{D1} = 0.624 \text{ g}$ | $S_{MS} = 1.327 \text{ g}$ | $S_{M1} = 0.937 \text{ g}$ | $PGA_M = 0.550 \text{ g}$



NOTES:

- 1 The probabilistic ground motion spectral response accelerations are based on the risk-targeted Maximum Considered Earthquake (MCE_R) having a 2% probability of exceedance in 50 years in the maximum direction using the Chiou & Youngs (2014), Campbell & Bozorgnia (2014), Boore et al. (2014), and Abrahamson et al. (2014) attenuation relationships and the risk coefficients.
- 2 The deterministic ground motion spectral response accelerations are for the 84th percentile of the geometric mean values in the maximum direction using the Chiou & Youngs (2014), Campbell & Bozorgnia (2014), Boore et al. (2014), and Abrahamson et al. (2014) attenuation relationships for deep soil sites considering a Mw 8.0 event on the San Andreas fault zone located 48.0 kilometers from the site. It conforms with the lower bound limit per ASCE 7-16 Section 21.2.2.
- 3 The Site-Specific MCE_R Response Spectrum is the lesser of spectral ordinates of deterministic and probabilistic accelerations at each period per ASCE 7-16 Section 21.2.3. The Site-Specific Design Response Spectrum conforms with lower bound limit per ASCE 7-16 Section 21.3.
- 4 The Mapped Design MCE_R Response Spectrum is computed from mapped spectral ordinates modified for Site Class D (stiff soil profile) per ASCE 7-16 Section 11.4. It is presented for the sake of comparison.

FIGURE 5



NOTES:

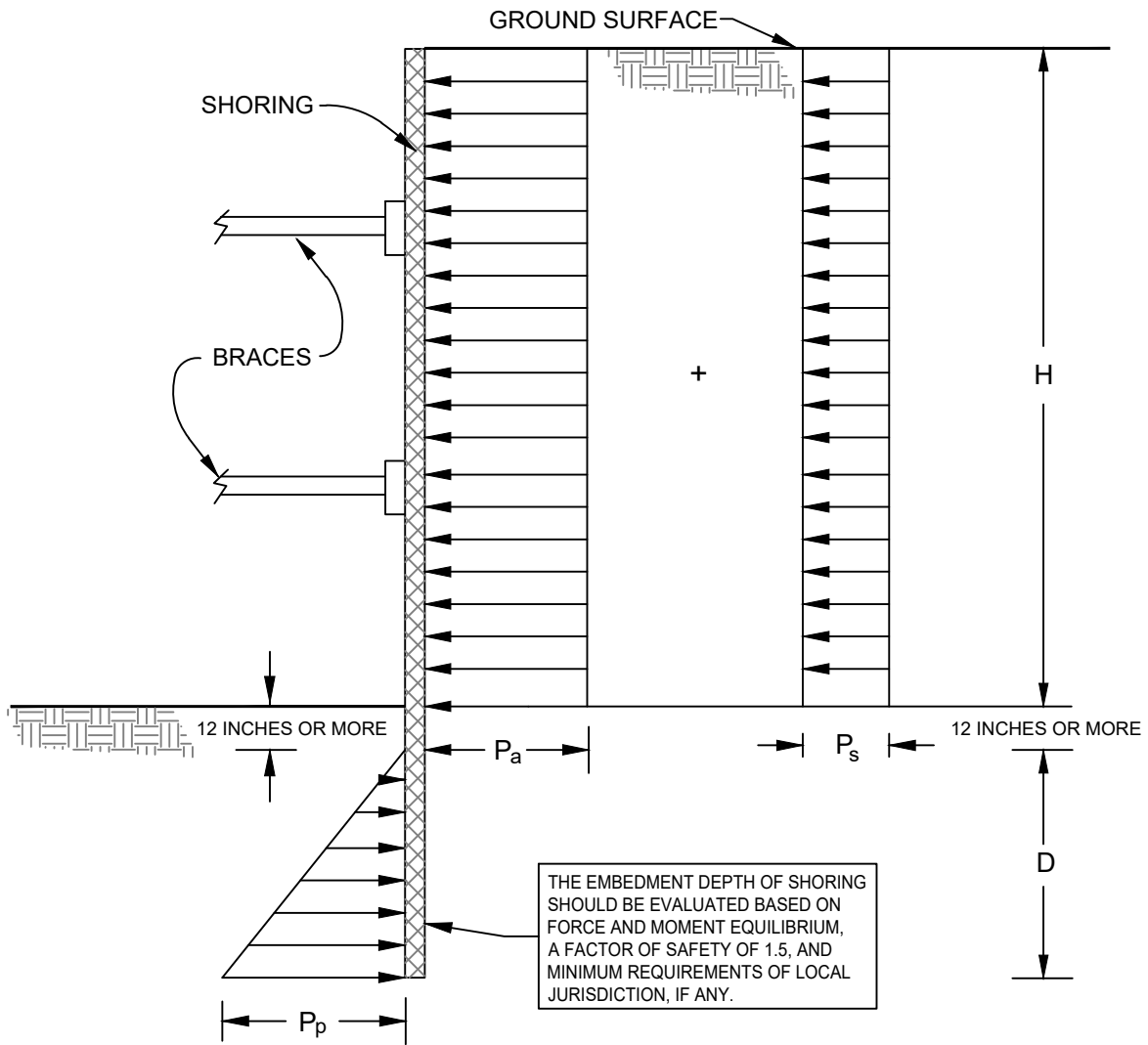
1. ACTIVE LATERAL EARTH PRESSURE, P_a
 $P_a = 37H$ psf
2. CONSTRUCTION TRAFFIC INDUCED SURCHARGE PRESSURE, P_s
 $P_s = 72$ psf
3. PASSIVE LATERAL EARTH PRESSURE, P_p
 $P_p = 350D$ psf
4. ASSUMES GROUNDWATER IS NOT PRESENT
5. H AND D ARE IN FEET

NOT TO SCALE

FIGURE 6

**LATERAL EARTH PRESSURES FOR
TEMPORARY CANTILEVERED SHORING**

NEW U-HAUL FACILITY
BAKERSFIELD, CALIFORNIA



NOTES:

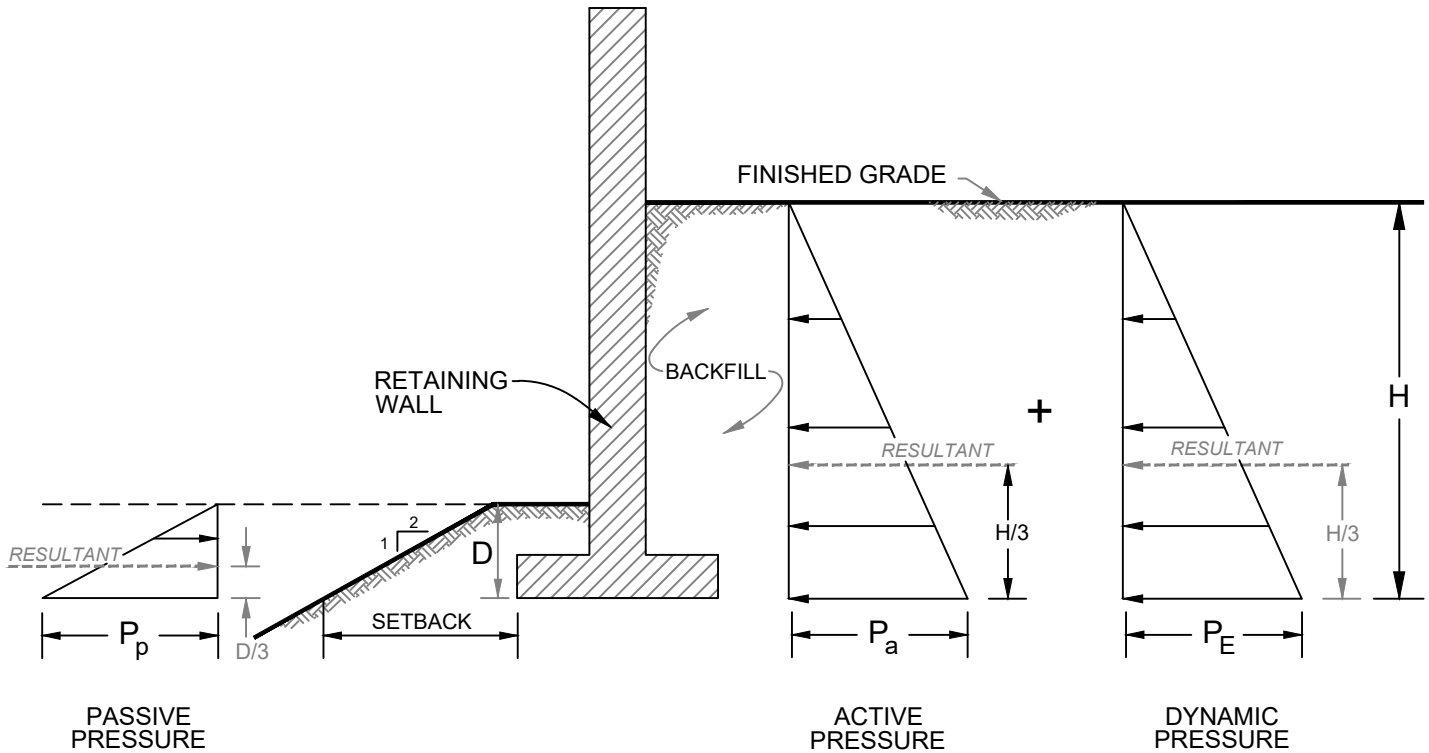
1. APPARENT LATERAL EARTH PRESSURE, P_a
 $P_a = 24H$ psf
2. CONSTRUCTION TRAFFIC INDUCED SURCHARGE PRESSURE, P_s
 $P_s = 120$ psf
3. PASSIVE LATERAL EARTH PRESSURE, P_p
 $P_p = 350D$ psf
4. ASSUMES GROUNDWATER IS NOT PRESENT
5. SURCHARGES FROM EXCAVATED SOIL OR CONSTRUCTION MATERIALS ARE NOT INCLUDED
6. H AND D ARE IN FEET

NOT TO SCALE

FIGURE 7

LATERAL EARTH PRESSURES FOR BRACED EXCAVATION

NEW U-HAUL FACILITY
BAKERSFIELD, CALIFORNIA



NOTES:

1. ASSUMES NO HYDROSTATIC PRESSURE BUILD-UP BEHIND THE RETAINING WALL
2. STRUCTURAL GRANULAR BACKFILL MATERIALS AS SPECIFIED IN GREENBOOK SHOULD BE USED FOR RETAINING WALL BACKFILL
3. DRAINS AS RECOMMENDED IN THE RETAINING WALL DRAINAGE DETAIL SHOULD BE INSTALLED BEHIND THE RETAINING WALL
4. DYNAMIC LATERAL EARTH PRESSURE IS BASED ON A MAPPED DESIGN PEAK GROUND ACCELERATION OF 0.35 g
5. P_E IS CALCULATED IN ACCORDANCE WITH THE RECOMMENDATIONS OF MONONOBÉ AND MATSUO (1929), AND ATIK AND SITAR (2010)
6. SURCHARGE PRESSURES CAUSED BY VEHICLES OR NEARBY STRUCTURES ARE NOT INCLUDED
7. H AND D ARE IN FEET
8. SETBACK SHOULD BE IN ACCORDANCE WITH FIGURE 1808.7.1 OF THE CBC (2019)

RECOMMENDED GEOTECHNICAL DESIGN PARAMETERS

Lateral Earth Pressure	Equivalent Fluid Pressure (lb/ft ² /ft) ⁽¹⁾	
	Level Backfill with Granular Soils ⁽²⁾	2H:1V Sloping Backfill with Granular Soils ⁽²⁾
P_a	37H	57H
P_E	20H	25H
P_p	Level Ground	2H:1V Descending Ground
	350D	140D

NOT TO SCALE

FIGURE 8

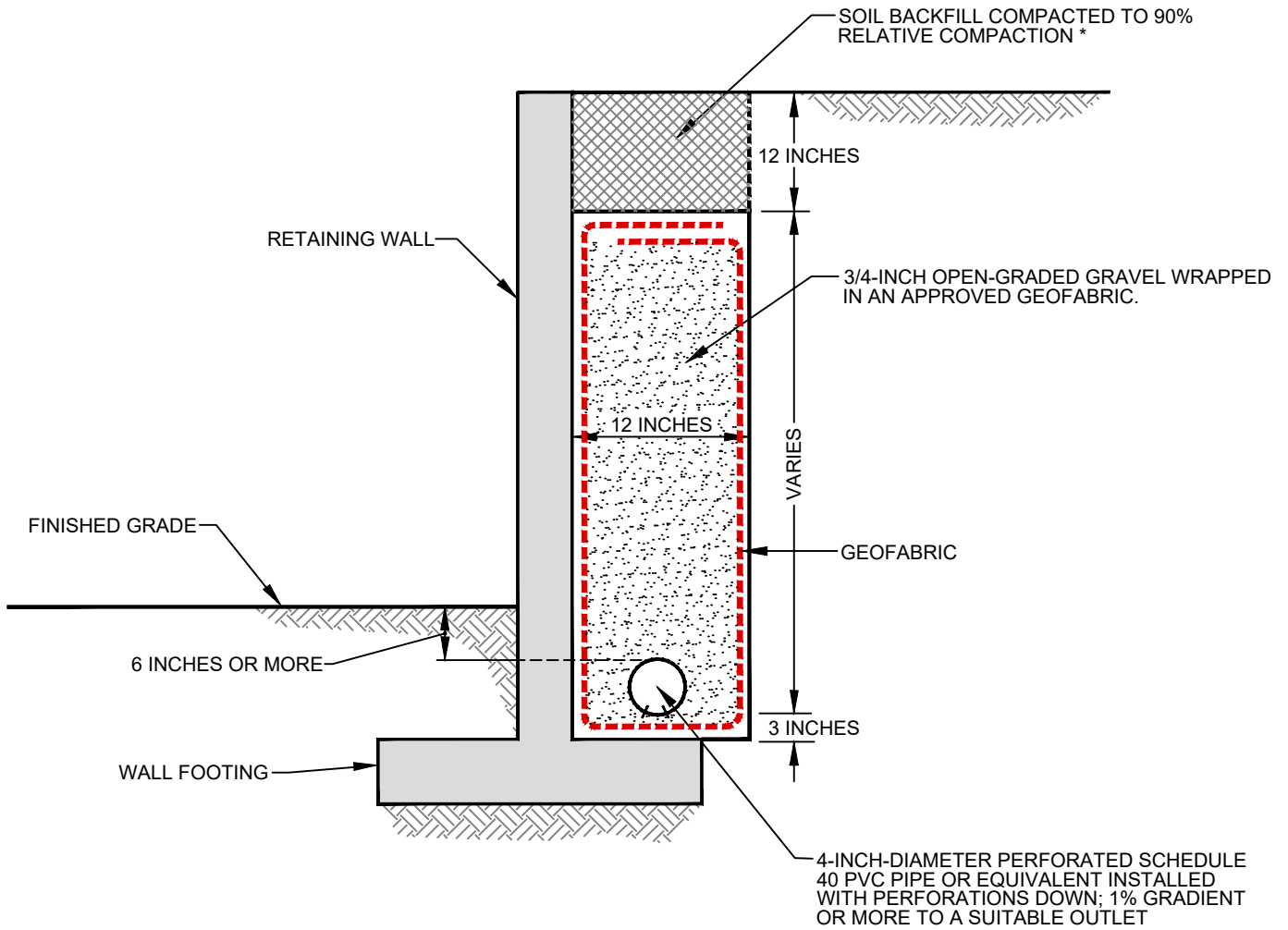
LATERAL EARTH PRESSURES FOR YIELDING RETAINING WALLS

NEW U-HAUL FACILITY
BAKERSFIELD, CALIFORNIA



Geotechnical & Environmental Sciences Consultants

9_211847001_RWDD2.dwg 02/16/2022 GK



*BASED ON ASTM D1557

NOT TO SCALE

FIGURE 9

RETAINING WALL DRAINAGE DETAIL

NEW U-HAUL FACILITY
BAKERSFIELD, CALIFORNIA



APPENDIX A

Boring Logs

APPENDIX A

BORING LOGS

Field Procedure for the Collection of Disturbed Samples

Disturbed soil samples were obtained in the field using the following methods.

Bulk Samples

Bulk samples of representative earth materials were obtained from the exploratory borings. The samples were bagged and transported to the laboratory for testing.

The Standard Penetration Test (SPT) Sampler

Disturbed drive samples of earth materials were obtained by means of a Standard Penetration Test sampler. The sampler is composed of a split barrel with an external diameter of 2 inches and an unlined internal diameter of 1 3/8 inches. The sampler was driven into the ground 12 to 18 inches with a 140-pound hammer falling freely from a height of 30 inches in general accordance with ASTM D 1586. The blow counts were recorded for every 6 inches of penetration; the blow counts reported on the logs are those for the last 12 inches of penetration. Soil samples were observed and removed from the sampler, bagged, sealed and transported to the laboratory for testing.




Undisturbed Samples

Relatively undisturbed soil samples were obtained in the field using the following method.

The Modified Split-Barrel Drive Sampler

The sampler, with an external diameter of 3 inches, was lined with 1-inch-long, thin brass rings with inside diameters of approximately 2.4 inches. The sample barrel was driven into the ground with the weight of a hammer in general accordance with ASTM D 3550. The driving weight was permitted to fall freely. The approximate length of the fall, the weight of the hammer, and the number of blows per foot of driving are presented on the boring logs as an index to the relative resistance of the materials sampled. The samples were removed from the sample barrel in the brass rings, sealed, and transported to the laboratory for testing.

BORING LOG EXPLANATION SHEET

DEPTH (feet)	SAMPLES		BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	
	Bulk	Driven						
0	XX/XX							Bulk sample. Modified split-barrel drive sampler. No recovery with modified split-barrel drive sampler. Sample retained by others. Standard Penetration Test (SPT). No recovery with a SPT. Shelby tube sample. Distance pushed in inches/length of sample recovered in inches. No recovery with Shelby tube sampler. Continuous Push Sample. Seepage. Groundwater encountered during drilling. Groundwater measured after drilling.
5								
10								
15							SM	<u>MAJOR MATERIAL TYPE (SOIL):</u> Solid line denotes unit change.
20							CL	Dashed line denotes material change. Attitudes: Strike/Dip b: Bedding c: Contact j: Joint f: Fracture F: Fault cs: Clay Seam s: Shear bss: Basal Slide Surface sf: Shear Fracture sz: Shear Zone sbs: Shear Bedding Surface
20								The total depth line is a solid line that is drawn at the bottom of the boring.

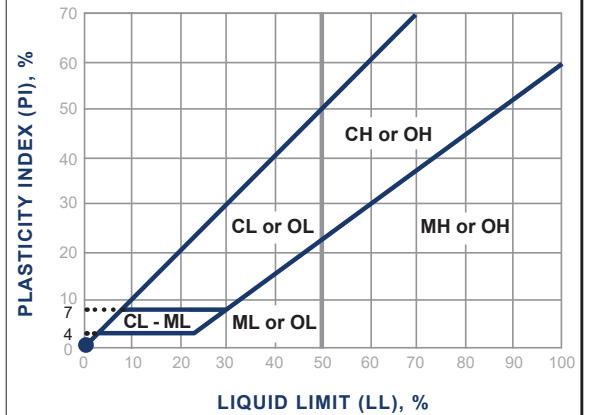
Soil Classification Chart Per ASTM D 2488

Primary Divisions		Secondary Divisions			
		Group Symbol	Group Name		
COARSE-GRAINED SOILS more than 50% retained on No. 200 sieve	GRAVEL more than 50% of coarse fraction retained on No. 4 sieve	CLEAN GRAVEL less than 5% fines	GW	well-graded GRAVEL	
			GP	poorly graded GRAVEL	
		GRAVEL with DUAL CLASSIFICATIONS 5% to 12% fines	GW-GM	well-graded GRAVEL with silt	
			GP-GM	poorly graded GRAVEL with silt	
			GW-GC	well-graded GRAVEL with clay	
			GP-GC	poorly graded GRAVEL with clay	
			GM	silty GRAVEL	
		GRAVEL with FINES more than 12% fines	GC	clayey GRAVEL	
			GC-GM	silty, clayey GRAVEL	
	SW		well-graded SAND		
	SP		poorly graded SAND		
	SAND 50% or more of coarse fraction passes No. 4 sieve	CLEAN SAND less than 5% fines	SW	well-graded SAND	
			SP	poorly graded SAND	
		SAND with DUAL CLASSIFICATIONS 5% to 12% fines	SW-SM	well-graded SAND with silt	
			SP-SM	poorly graded SAND with silt	
			SW-SC	well-graded SAND with clay	
			SP-SC	poorly graded SAND with clay	
			SM	silty SAND	
SAND with FINES more than 12% fines		SC	clayey SAND		
		SC-SM	silty, clayey SAND		
	CL	lean CLAY			
FINE-GRAINED SOILS 50% or more passes No. 200 sieve	SILT and CLAY liquid limit less than 50%	INORGANIC	ML	SILT	
			CL-ML	silty CLAY	
			OL (PI > 4)	organic CLAY	
		ORGANIC	OL (PI < 4)	organic SILT	
			CH	fat CLAY	
			MH	elastic SILT	
	SILT and CLAY liquid limit 50% or more	INORGANIC	OH (plots on or above "A"-line)	organic CLAY	
			OH (plots below "A"-line)	organic SILT	
			PT	Peat	
		Highly Organic Soils			

Grain Size

Description	Sieve Size	Grain Size	Approximate Size
Boulders	> 12"	> 12"	Larger than basketball-sized
Cobbles	3 - 12"	3 - 12"	Fist-sized to basketball-sized
Gravel	Coarse	3/4 - 3"	Thumb-sized to fist-sized
	Fine	#4 - 3/4"	Pea-sized to thumb-sized
Sand	Coarse	#10 - #4	Rock-salt-sized to pea-sized
	Medium	#40 - #10	Sugar-sized to rock-salt-sized
	Fine	#200 - #40	Flour-sized to sugar-sized
Fines	Passing #200	< 0.0029"	Flour-sized and smaller

Plasticity Chart



Apparent Density - Coarse-Grained Soil

Apparent Density	Spooling Cable or Cathead		Automatic Trip Hammer	
	SPT (blows/foot)	Modified Split Barrel (blows/foot)	SPT (blows/foot)	Modified Split Barrel (blows/foot)
Very Loose	≤ 4	≤ 8	≤ 3	≤ 5
Loose	5 - 10	9 - 21	4 - 7	6 - 14
Medium Dense	11 - 30	22 - 63	8 - 20	15 - 42
Dense	31 - 50	64 - 105	21 - 33	43 - 70
Very Dense	> 50	> 105	> 33	> 70

Consistency - Fine-Grained Soil

Consistency	Spooling Cable or Cathead		Automatic Trip Hammer	
	SPT (blows/foot)	Modified Split Barrel (blows/foot)	SPT (blows/foot)	Modified Split Barrel (blows/foot)
Very Soft	< 2	< 3	< 1	< 2
Soft	2 - 4	3 - 5	1 - 3	2 - 3
Firm	5 - 8	6 - 10	4 - 5	4 - 6
Stiff	9 - 15	11 - 20	6 - 10	7 - 13
Very Stiff	16 - 30	21 - 39	11 - 20	14 - 26
Hard	> 30	> 39	> 20	> 26

DEPTH (feet)	SAMPLES Bulk Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED	BORING NO.	
							1/11/22	B-1	
							GROUND ELEVATION	SHEET	OF
							349' ± (MSL)	1	1
							METHOD OF DRILLING 8" Hollow-Stem Auger (MR Drilling)		
							DRIVE WEIGHT	DROP	
							140 lbs. (Auto. Trip Hammer)	30"	
							SAMPLED BY	LOGGED BY	REVIEWED BY
							GM	GM	RDH
							DESCRIPTION/INTERPRETATION		
0						SM	ALLUVIUM: Grayish brown, moist, medium dense, silty SAND.		
		41	4.7	84.0					
10		17							
						ML	Yellowish brown, moist, medium dense, sandy SILT.		
		38	8.3	92.9					
20		11							
							Total Depth = 21.5 feet. Groundwater was not encountered during drilling. Backfilled with on-site soil on 1/11/22.		
							<u>Notes:</u> Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.		
							The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.		
30									
40									

FIGURE A-1

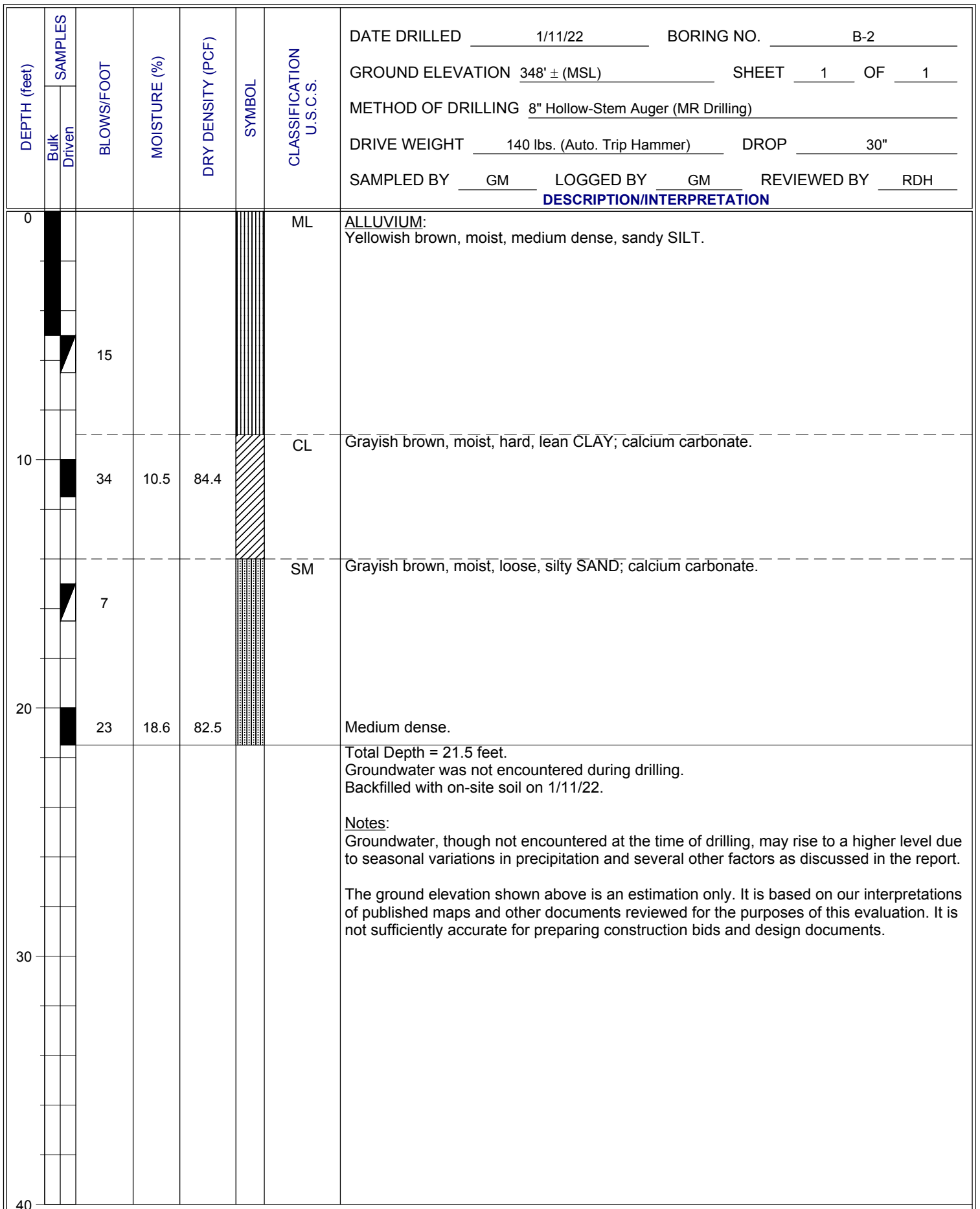


FIGURE A-2

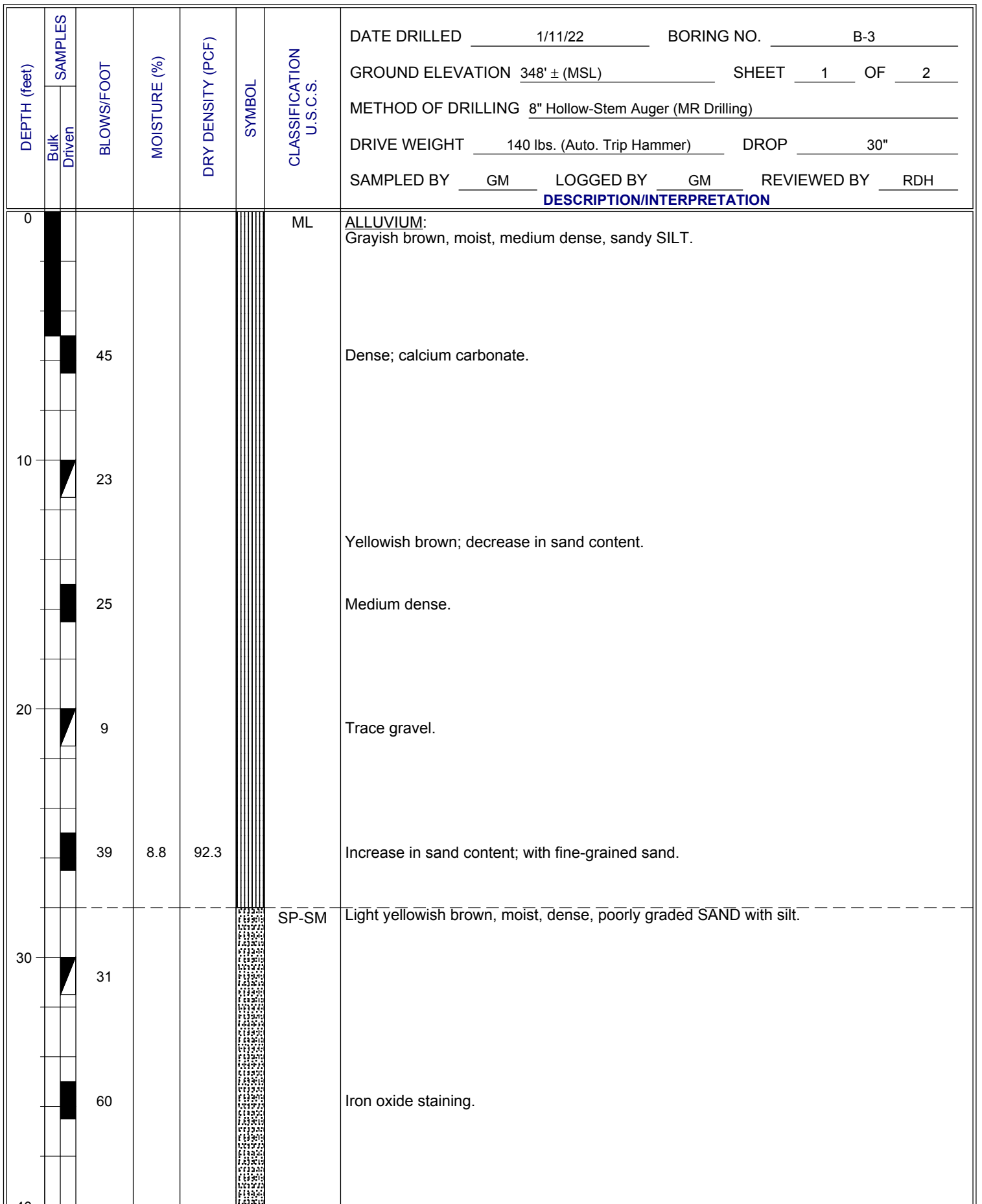


FIGURE A-3

DEPTH (feet)	SAMPLES		BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION	
	Bulk	Driven						DATE DRILLED	BORING NO.
								1/11/22	B-3
								348' ± (MSL)	SHEET 2 OF 2
								8" Hollow-Stem Auger (MR Drilling)	
								140 lbs. (Auto. Trip Hammer)	DROP 30"
								GM	LOGGED BY GM REVIEWED BY RDH
40			33				SP-SM	ALLUVIUM: (Continued) Light yellowish brown, moist, dense, poorly graded SAND with silt.	
			88	3.2	91.0			Very dense.	
50			34				CL	Yellowish brown, moist, hard, lean CLAY.	
								Total Depth = 50.0 feet. Groundwater was not encountered during drilling. Backfilled with on-site soil on 1/11/22. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.	
60									
70									
80									

FIGURE A-4

DEPTH (feet)	SAMPLES		BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
	Bulk	Driven						
DATE DRILLED <u>1/11/22</u> BORING NO. <u>B-4</u> GROUND ELEVATION <u>348' ± (MSL)</u> SHEET <u>1</u> OF <u>1</u> METHOD OF DRILLING <u>8" Hollow-Stem Auger (MR Drilling)</u> DRIVE WEIGHT <u>140 lbs. (Auto. Trip Hammer)</u> DROP <u>30"</u> SAMPLED BY <u>GM</u> LOGGED BY <u>GM</u> REVIEWED BY <u>RDH</u>								
0							ML	ALLUVIUM: Yellowish brown, moist, medium dense, sandy SILT.
			14	1.4	94.3		SP-SM	Yellowish brown, moist, loose, poorly graded SAND with silt.
10			9					Medium dense.
			19	2.9	92.1			
20			14					
30								Total Depth = 21.5 feet. Groundwater was not encountered during drilling. Backfilled with on-site soil on 1/11/22. <u>Notes:</u> Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
40								

FIGURE A- 5

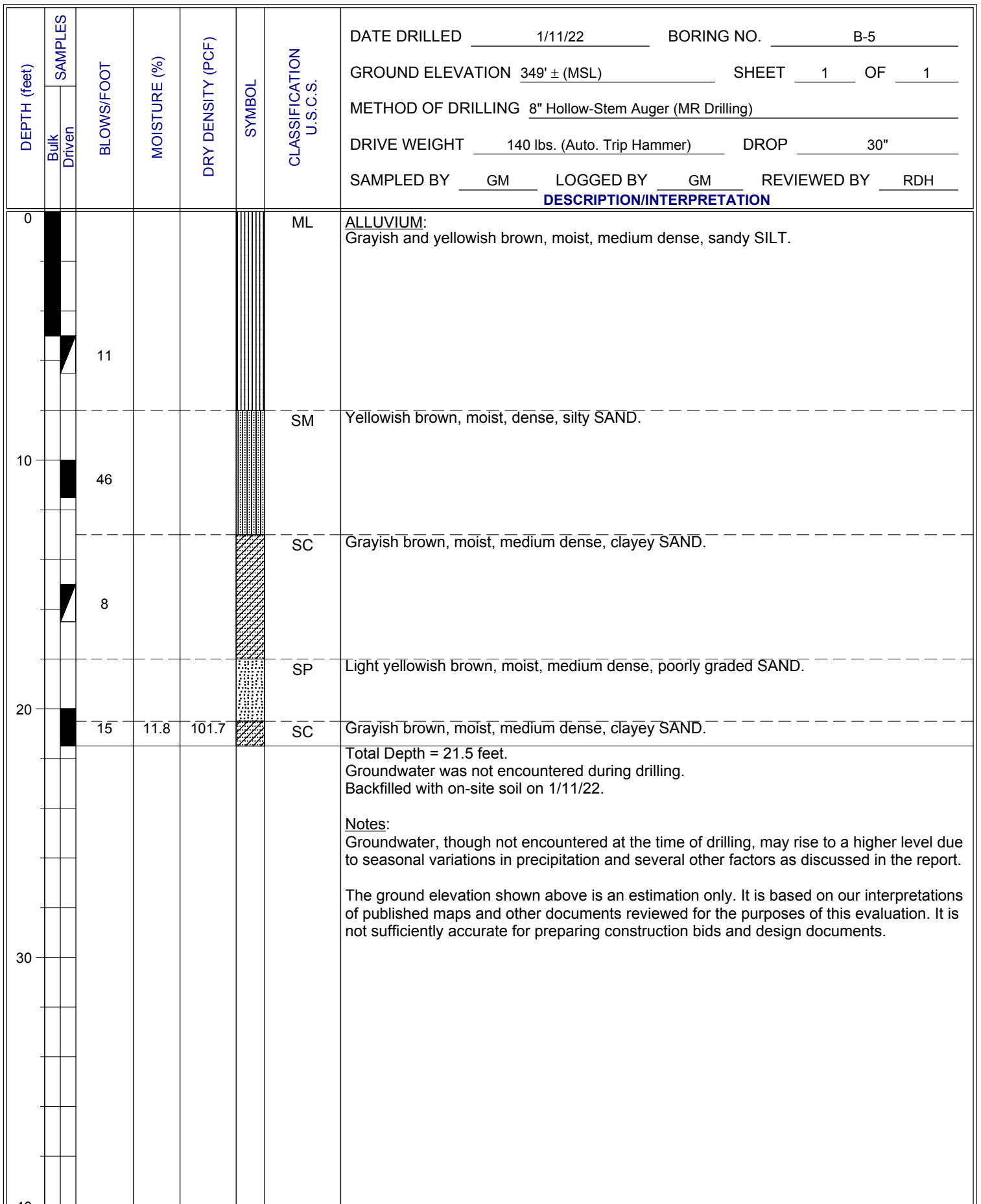


FIGURE A- 6



APPENDIX B

Laboratory Testing

APPENDIX B

LABORATORY TESTING

Classification

Soils were visually and texturally classified in accordance with the Unified Soil Classification System (USCS) in general accordance with ASTM D 2488. Soil classifications are indicated on the logs of the exploratory borings in Appendix A.

In-Place Moisture and Density Tests

The moisture content and dry density of relatively undisturbed samples obtained from the exploratory borings were evaluated in general accordance with ASTM D 2937. The test results are presented on the logs of the exploratory borings in Appendix A.

200 Wash

An evaluation of the percentage of particles passing the No. 200 sieve in selected soil samples was performed in general accordance with ASTM D 1140. The results of the tests are summarized on Figures B-1 and B-2.

Atterberg Limits

Tests were performed on a selected representative fine-grained soil sample to evaluate the liquid limit, plastic limit, and plasticity index in general accordance with ASTM D 4318. These test results were utilized to evaluate the soil classification in accordance with the USCS. The test results and classifications are shown on Figure B-3.

Proctor Density Test

The maximum dry density and optimum moisture content of a selected representative soil sample was evaluated using the Modified Proctor method in general accordance with ASTM D 1557. The results of this test are summarized on Figure B-4.

Consolidation Tests

Consolidation tests were performed on selected relatively undisturbed soil samples in general accordance with ASTM D 2435. The samples were inundated during testing to represent adverse field conditions. The percent of consolidation for each load cycle was recorded as a ratio of the amount of vertical compression to the original height of the sample. The results of the test are summarized on Figures B-5 and B-6.

Direct Shear Test

Direct shear test was performed on a remolded sample in general accordance with ASTM D 3080 to evaluate the shear strength characteristics of the selected material. The sample was inundated during shearing to represent adverse field conditions. The results are shown on Figure B-7.

R-Value

The resistance value, or R-value, for site soils was evaluated in general accordance with California Test (CT) 301. A sample was prepared and evaluated for exudation pressure and expansion pressure. The equilibrium R-value is reported as the lesser or more conservative of the two calculated results. The test results are shown on Figure B-8.

Soil Corrosivity Tests

Soil pH and minimum resistivity tests were performed on a representative sample in general accordance with CT 643. The chloride content of the selected sample was evaluated in general accordance with CT 422. The sulfate content of the selected sample was evaluated in general accordance with CT 417. The test results are presented on Figure B-9.

SAMPLE LOCATION	SAMPLE DEPTH (ft)	DESCRIPTION	PERCENT PASSING NO. 4	PERCENT PASSING NO. 200	USCS (TOTAL SAMPLE)
B-1	0.0-5.0	SILTY SAND	100	48	SM
B-1	15.0-16.5	SANDY SILT	100	61	ML
B-2	15.0-16.5	SILTY SAND	100	42	SM
B-3	0.0-5.0	SANDY SILT	100	53	ML
B-3	10.0-11.5	SANDY SILT	100	69	ML
B-3	20.0-21.5	SANDY SILT	99	76	ML
B-3	30.0-31.5	POORLY GRADED SAND WITH SILT	100	12	SP-SM
B-3	48.5-50.0	LEAN CLAY	100	78	CL
B-4	5.0-6.5	POORLY GRADED SAND WITH SILT	100	7	SP-SM

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 1140

FIGURE B-1

SAMPLE LOCATION	SAMPLE DEPTH (ft)	DESCRIPTION	PERCENT PASSING NO. 4	PERCENT PASSING NO. 200	USCS (TOTAL SAMPLE)
B-5	10.0-11.5	SILTY SAND	100	40	SM

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 1140

FIGURE B-2



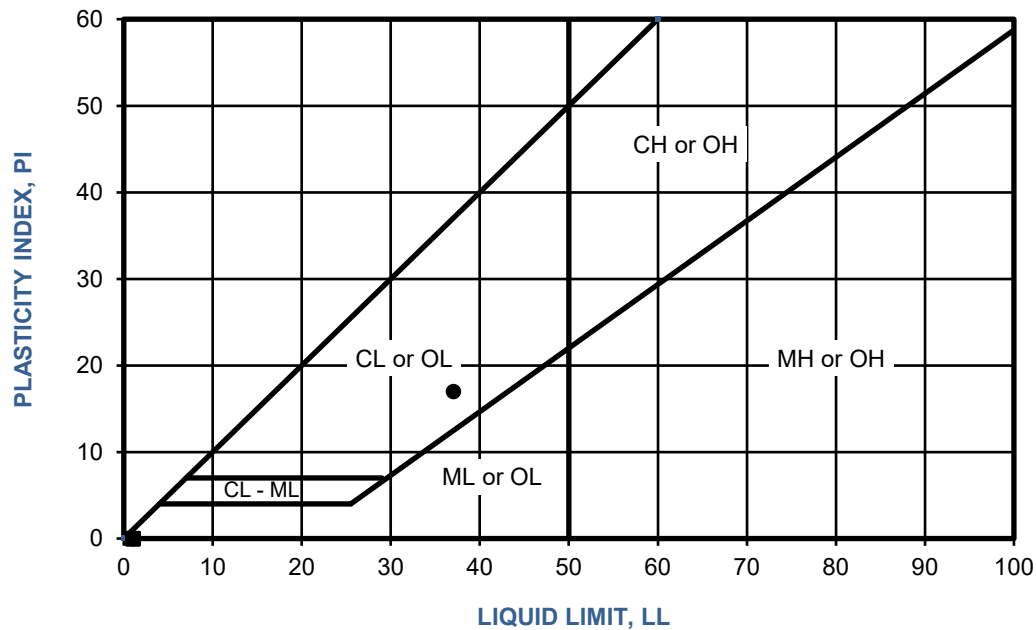
NO. 200 SIEVE ANALYSIS TEST RESULTS

NEW U-HAUL FACILITY
 BAKERSFIELD, CALIFORNIA

211847001 | 2/22

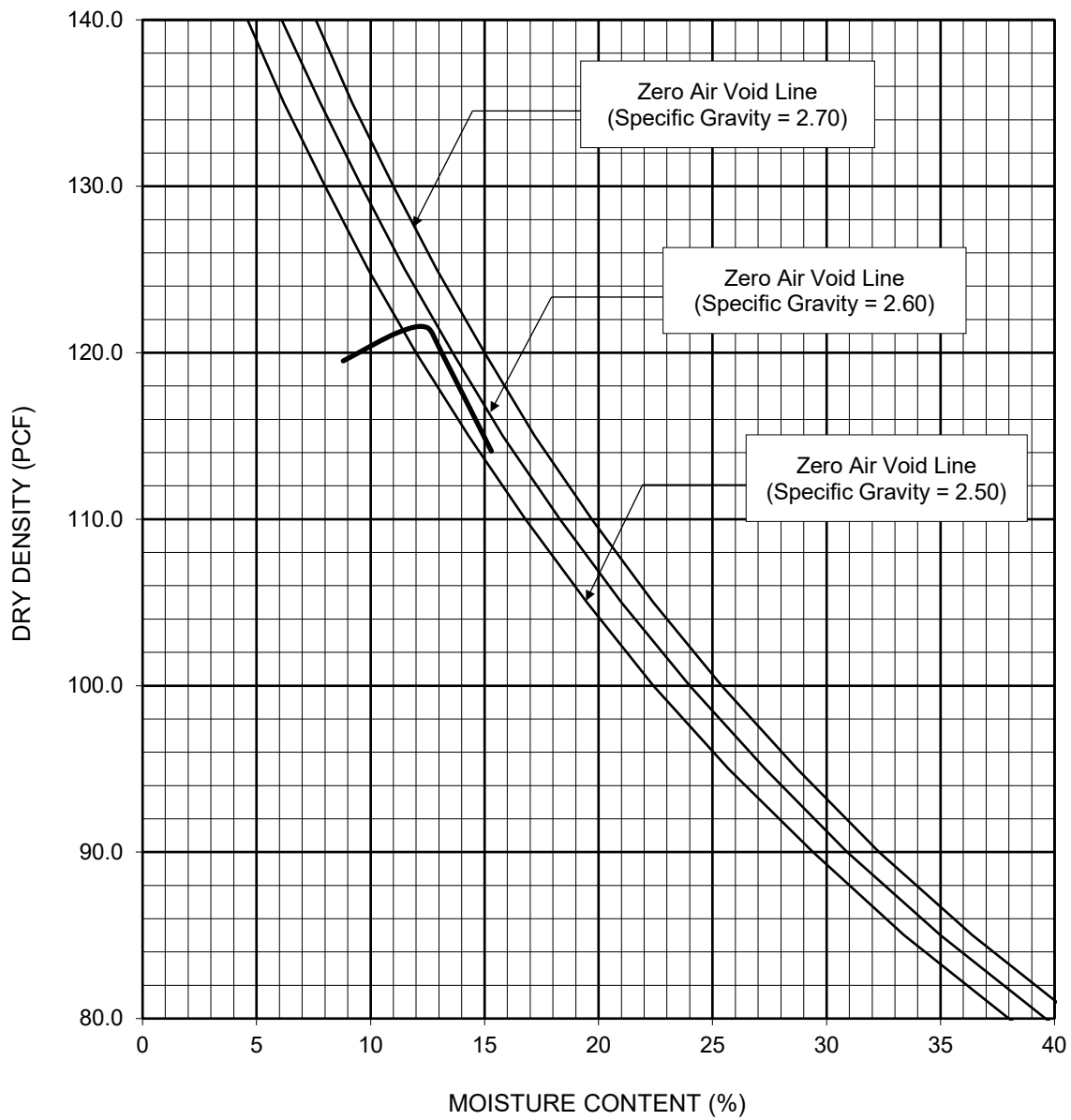
SYMBOL	LOCATION	DEPTH (ft)	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	USCS CLASSIFICATION (Fraction Finer Than No. 40 Sieve)	USCS
●	B-2	10.0-11.5	37	20	17	CL	CL

NP - INDICATES NON-PLASTIC



PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 4318

FIGURE B-3



Sample Location	Depth (ft)	Soil Description	Maximum Dry Density (pcf)	Optimum Moisture Content (percent)
B-3	0.0-5.0	Brown Sandy SILT	121.5	12.5
Dry Density and Moisture Content Values Corrected for Oversize (ASTM D 4718)			N/A	N/A

PERFORMED IN GENERAL ACCORDANCE WITH

ASTM D 1557

ASTM D 698

METHOD

A

B

C

FIGURE B-4

Ninyo & Moore

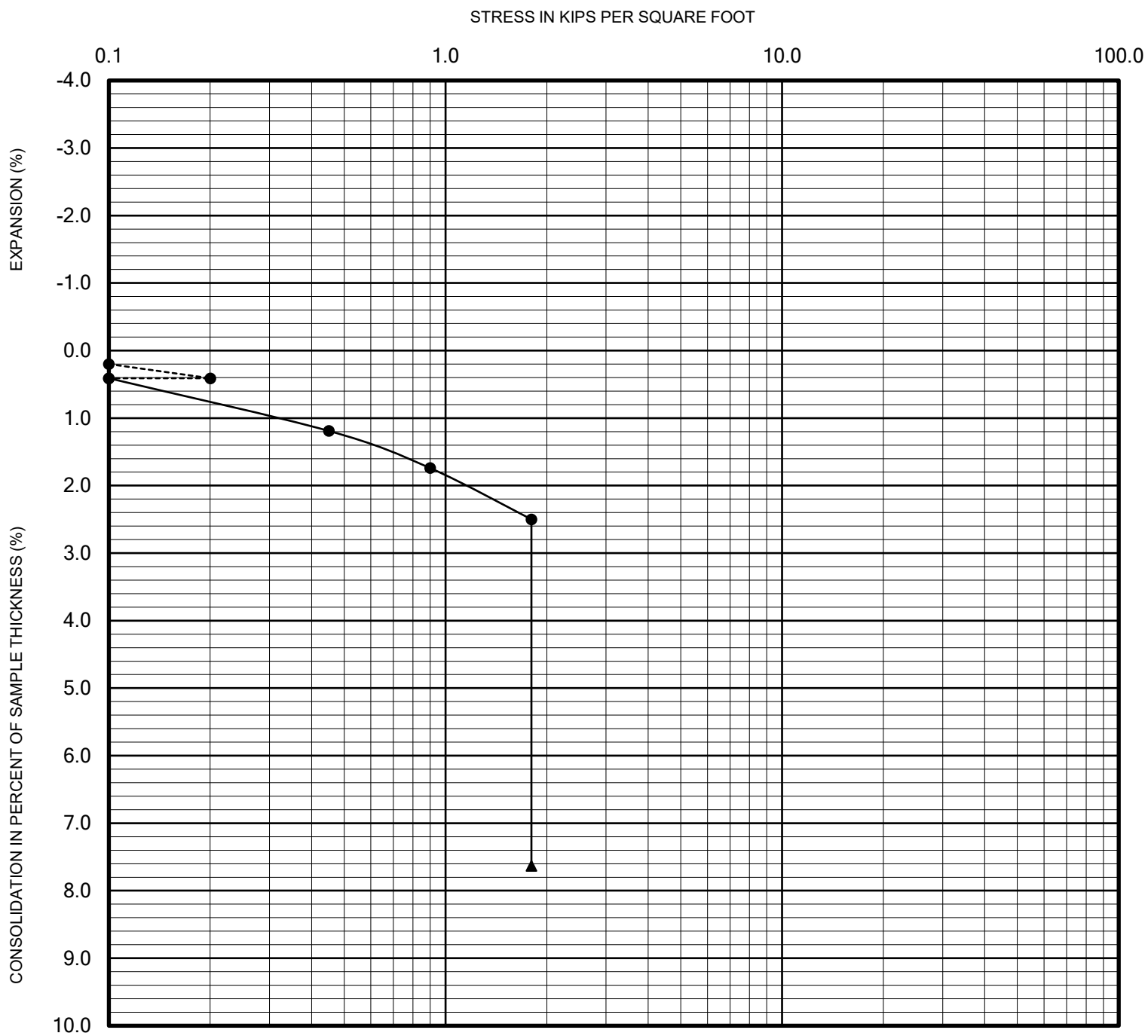
Geotechnical & Environmental Sciences Consultants

PROCTOR DENSITY TEST RESULTS

NEW U-HAUL FACILITY
BAKERSFIELD, CALIFORNIA

211847001

2/22

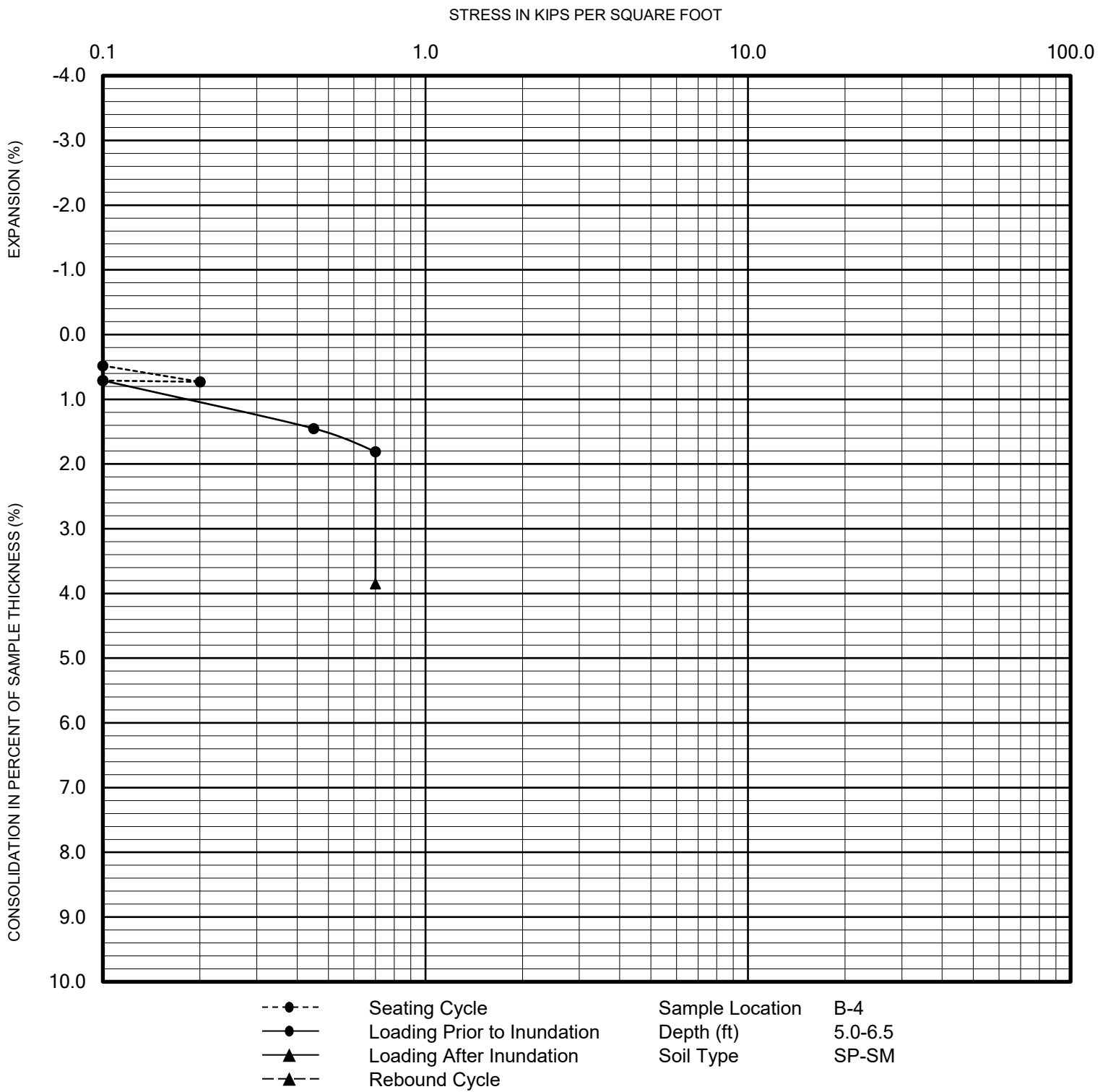


--●--	Seating Cycle	Sample Location	B-1
—●—	Loading Prior to Inundation	Depth (ft)	15.0-16.5
—▲—	Loading After Inundation	Soil Type	ML
-▲-	Rebound Cycle		

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 2435



FIGURE B-5
CONSOLIDATION TEST RESULTS
 NEW U-HAUL FACILITY
 BAKERSFIELD, CALIFORNIA



PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 2435

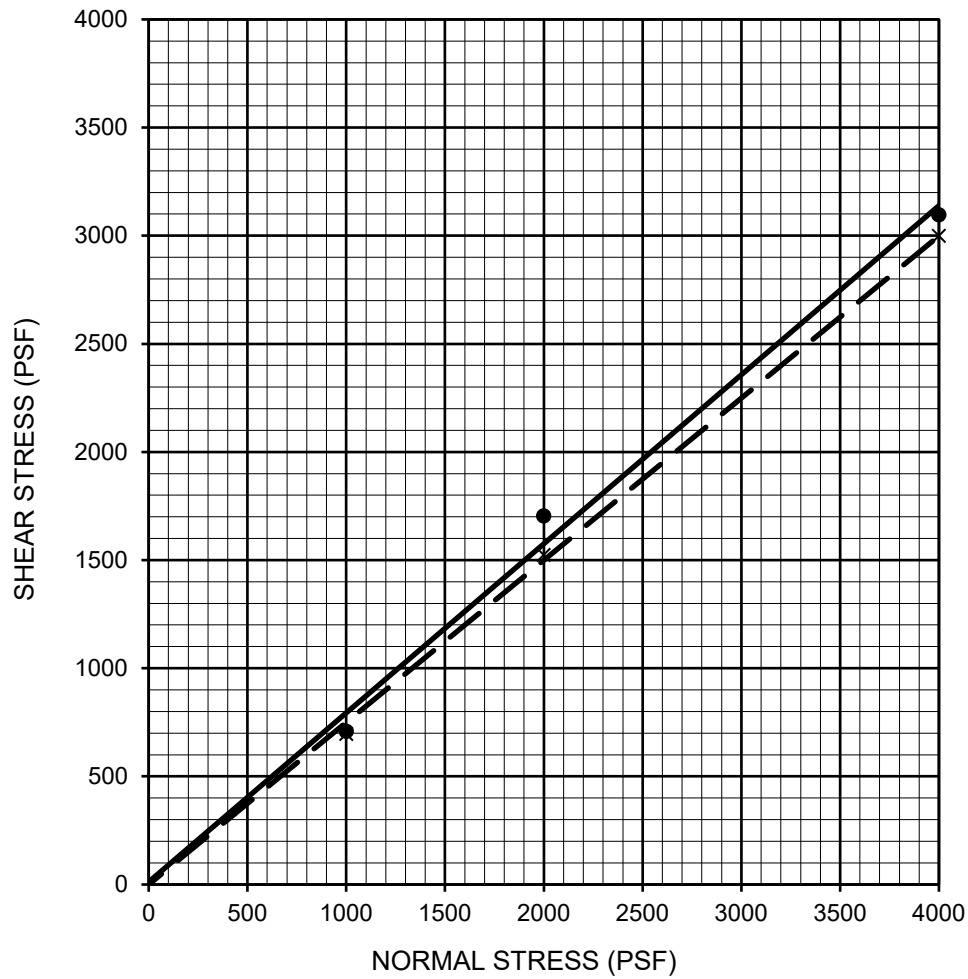
FIGURE B-6

CONSOLIDATION TEST RESULTS

NEW U-HAUL FACILITY
 BAKERSFIELD, CALIFORNIA

211847001 | 2/22





Description	Symbol	Sample Location	Depth (ft)	Shear Strength	Cohesion (psf)	Friction Angle (degrees)	Soil Type
SANDY SILT	—●—	B-3	0.0-5.0	Peak	12	38	ML
SANDY SILT	- - X - -	B-3	0.0-5.0	Ultimate	0	37	ML

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 3080 ON A SAMPLE REMOLDED TO 90% RELATIVE COMPACTION

FIGURE B-7

SAMPLE LOCATION	SAMPLE DEPTH (ft)	SOIL TYPE	R-VALUE
B-1	0.0-5.0	SILTY SAND	54

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 2844/CT 301

FIGURE B-8

SAMPLE LOCATION	SAMPLE DEPTH (ft)	pH ¹	RESISTIVITY ¹ (ohm-cm)	SULFATE CONTENT ²		CHLORIDE CONTENT ³ (ppm)
				(ppm)	(%)	
B-1	0.0-5.0	7.1	3,038	10	0.001	35

¹ PERFORMED IN GENERAL ACCORDANCE WITH CALIFORNIA TEST METHOD 643

² PERFORMED IN GENERAL ACCORDANCE WITH CALIFORNIA TEST METHOD 417

³ PERFORMED IN GENERAL ACCORDANCE WITH CALIFORNIA TEST METHOD 422

FIGURE B-9



CORROSIVITY TEST RESULTS

NEW U-HAUL FACILITY
BAKERSFIELD, CALIFORNIA

211847001 | 2/22



APPENDIX C

Amerco Real Estate Company Geotechnical Requirements

AMERCO[®]

REAL ESTATE COMPANY

Project Development, Scope of Services, Design Assumptions, and Project Specifications: **Proposal Acceptance and Terms of Agreement**

This page is required to be included as an Appendix item for reference in your Geotechnical Services proposal provided to AMERCO Real Estate Co./U-Haul International, Inc. (AREC/UHI) on every project, every time.

The following details our Standard Operating Procedures (SOPs) for services provided by our Geotechnical Engineering consultants:

Please be advised that the formal NTP is to follow the initial Kickoff (KO) Meeting that will be scheduled (unless otherwise determined in writing) for every project within 2 days after proposal acceptance is provided by the Owner; Right of Entry (ROE) is not granted with the signed agreement. A Certificate of Insurance (COI) is required for the ROE to be provided and shall be submitted to the Owner (identifying the Seller and/or additional parties identified in the KO Meeting) as the additionally insured.

It is the responsibility of the Consultant to directly contact Sabrina Perez (602-263-6502 ext. 516409) to schedule the KO meeting for every project, every time. During the KO meeting, project specifics will be discussed in detail (including review of the below and anticipated boring/exploration locations) with the National Account Manager (NAM) and/or local office Principal/Geotechnical Engineer.

Scope of Services:

Please provide a scope of services to provide soils investigations and resulting recommendations for the current planning phase of development. The scope of services should include, but is not specifically limited to, the following:

- Building design uses an integral system (thickened perimeter ftgs [monolithic w/slab] and isolated cols.)
- Approximated infiltration ranges from the boring log stratigraphy to be requested during permit application (CD) phase
- Bearing capacity (min. 3,000 psf) and anticipated settlement (differential ¼" max.[between adj. columns/along 40' length])
- Corrosivity characteristics (including pH, minimum electrical resistivity, and soluble sulfate and chloride contents).
- Excavation conditions
- Expansion and collapse potential and mitigation measures
- Excavation/trench stability including bracing
- Flexible and rigid pavement design and construction (w/reliability of 90-95%, min.)
- Floor slab design criteria and construction requirements (subgrade modulus,etc)
- Foundation options (shallow and deep) for proposed improvements (to be discussed during KO Meeting)
- Geology, surface conditions, and subsurface conditions
- Groundwater conditions
- Laboratory test results
- Lateral earth pressures (including at rest, active, passive, adhesion, and coefficients of sliding friction between dissimilar materials)
- Liquefaction potential
- On-site soil suitability and structural fill recommendations (acceptable soil/material types, compaction, loose lift thickness, etc.)
- Seismic hazards (including Seismic Site Classification and Spectral Response Accelerations per current IBC code)
- Site preparation and grading
- Soil boring/exploration procedure, exploration/boring logs, and map(s) depicting final exploration/boring locations
- Subgrade improvement and site drainage
- **Retaining wall design info (including for varying backfill conditions [horizontal, sloping, etc.]**
 - **This information needs to be included within the Executive Summary**
- **Design recommendations for shallow piers (light poles, covered parking, etc.)**
 - **This information needs to be included within the Executive Summary**

Field Procedures:

It is the responsibility of the Consultant to ensure the following conditions are met for all field work performed as it relates to the services provided within the attached agreement:

- GPS coordinates are not to be identified within the proposal for review of the exploration locations.
- Consultant to request all reference material (i.e., ALTA surveys [w/topography], existing utility locations, As-Builts, Environmental Site Assessment (ESA) reports, etc.) before drilling operations occur.
- Stakeout of the exploration locations is required in advance of coordinating 811; private utility locating services will be contracted with the Owner directly but coordinated with the field consultant.
- Photo documentation is requested during stakeout of exploration locations before drilling takes place.
- Every staked location must be cleared of 5' radius around exploration location by utility locators (private, min. 25').
- Certificate of Insurance (COI) includes AMERCO/UHI and other parties (determined during KO Meeting) as additionally insured prior to field work commencing.
- Right of Entry (ROE) protocol is discussed during KO Meeting prior to field work commencing.
- Confirmation of coring for locations underlain by Portland cement concrete (PCC) to be confirmed after exploration locations are staked; and
- Should anything out of the ordinary/concerning occur during drilling, the Owner shall be notified immediately.

Assumptions:

Detailed structural loading conditions and final site plans may/may not be available at this time. However, please assume the following:

- Up to four-story buildings are proposed, (unless otherwise specified).
- Anticipated settlement – differential 3/4" max. (between adj. columns/along 40' length).
- No below grade/lower building level, (unless otherwise specified).
- Below grade loading docks and elevator pits may/may not be anticipated.
- Recreation vehicle (RV) canopies may/may not be anticipated.
- Wall and column load on the order of 5 to 10 kips/ft. and 150 to 200 kips, respectively, (unless otherwise specified).
- Min. soil bearing capacity desired is 3,000 psf.
- Ground floor level to be at or within 2 feet of existing site grade, (unless otherwise specified); and
- Typical traffic loads to be assumed for construction and RVs and Fire Trucks per State, County, or local agency (to include up to 90,000lb Fire Apparatus): Light Traffic Loads (~50,000 ESALs), Medium Traffic Loads (~110,000 ESALs) and Heavy Traffic Loads (~180,000 ESALS)

Project Schedule:

It is the responsibility of the Consultant to ensure that the following conditions are met for the project as it relates to the services provided within the attached agreement:

- Consultant NTP is provided by Owner during the KO Meeting, only (ROE is not granted with the signed agreement).
- The KO Meeting is to be scheduled by the Consultant within two days of the proposal acceptance: and
- Project milestones are to be discussed during every project KO Meeting including, but not limited to, anticipated fieldwork (stakeout and drilling) dates, COI entities, ROE protocol, project milestone dates, and draft/final report delivery dates.

Project Deliverables:

- A draft report and final report will be delivered by the Consultant. (The draft report will be finalized after having been reviewed by AREC/UHI and/or once a preliminary conceptual Site Plan [SP] has been made available to the Consultant [unless otherwise stated in writing.]
- An email summary of the encountered field conditions v. preliminary SP layout is required within 3 business days of reference material having been sent to the Consultant*. (The purpose of this is for the Consultant to provide input on layout/final design.)
- **An Executive Summary is required as a project synopsis within the first few pages of the report.****
- A preliminary proposal for Construction Materials Testing (CMT) is requested as a separate deliverable – preferred, but optional and at your Company's discretion.

*If the preliminary SP is unavailable, please consult with Sabrina Perez for further direction.

****The Executive Summary is a very critical page in the report, summarizing findings and conclusions by the Professional; the information presented will be used to assess the site from feasibility and construction cost perspectives by Board Members and team members, alike.** Please be thorough, consistent, accurate and concise with this page of the report, as it will demonstrate your suitability as a Professional to assist us as a National developer.

Proposal acceptance infers the above shall be met, unless otherwise provided in written correspondence. Final reviewed Boring/Exploration Map to be included as attachment with every proposal.

Thank you for your team effort.

I have read, understand, and agree to all the requirements presented in this contract between the Owner and my Company.



Consultant signature

11-30-21

Date

AMERCO/UHI Representative Signature

Date



475 Goddard, Suite 200 | Irvine, California 92618 | p. 949.753.7070

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Geotechnical & Environmental Sciences Consultants



**PHASE I ENVIRONMENTAL SITE ASSESSMENT
OF
11.45 ACRES OF UNDEVELOPED LAND**



**9203 SOUTH H STREET
BAKERSFIELD, CALIFORNIA 93307**

ATLAS PROJECT NO. 1051000773

REPORT DATE: DECEMBER 16, 2021

AAI DATE: DECEMBER 8, 2021

Prepared by:

Atlas Technical
9185 South Farmer Avenue, Suite 111
Tempe, California 85284
Phone: (480) 894-2056
Fax: (480) 894-2497

Prepared for:

Ms. Haley Ziesemer
Environmental Specialist
AMERCO Real Estate Company
2727 North Central Avenue
Phoenix, California 85004

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PHASE I ENVIRONMENTAL SITE ASSESSMENT
11.45 Acres of Undeveloped Land
9203 South H Street
Bakersfield, California 93307

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1.0 EXECUTIVE SUMMARY

ATC Group Services LLC (ATC), doing business as Atlas Technical (Atlas), was retained by Amerco Real Estate Company (AREC) to conduct a Phase I Environmental Site Assessment (ESA) on a property located at 9203 South H Street in Bakersfield, California, 93307. The approximate 11.45-acre property is identified by Kern County as Assessor's Parcel Number (APN) 514-060-05. This Phase I ESA was conducted to review past and current land use practices at the property and is consistent with the methods and procedures described in the American Society for Testing and Materials (ASTM) *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* published November 2013 (Standard Designation E 1527-13). ASTM defines "*recognized environmental conditions*" as the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment.

The site reconnaissance of the property was conducted on November 23, 2021. At that time, the property consisted of approximately 11.45 acres of vacant, former agricultural land. Based on our site reconnaissance, no soil staining, aboveground storage tanks (ASTs), electrical transformers, dry wells, or evidence of underground storage tanks (USTs) were observed on the property. In addition, no hazardous substance use, storage, or disposal was observed on the property.

Historically, the property has been agricultural or fallow agricultural land from at least 1936 through today (December 2021) with no visible buildings or structures. The surrounding areas have also been agricultural land until residential development began to the south in the mid-1950s and to the east in the early-2000s. Commercial development appears to the north beginning in the early-2000s until the most recent development in 2013.

According to a review of regulatory databases, the property was not listed on the federal, state or tribal databases reviewed for this report. In addition, no federal or state-listed sites were identified within their respective ASTM search from the property.

Based on the information collected from this Phase I ESA, no *recognized environmental conditions*, *historical recognized environmental conditions*, or *controlled recognized environmental conditions* were identified. As such, Atlas offers no recommendations for further investigation regarding the property.

1.1 General Information

Project Information:

Potential Property Acquisition

Site Information:

11.45 Acres of Undeveloped Land
9203 South H Street
Bakersfield, California 93307
Kern County

Consultant Information:

Atlas Technical (Atlas)
9185 South Farmer Avenue, Suite 111
Tempe, California 85284

Site Access Contact:

Mr. Larry Morgan
Morgan Corporation

Telephone: (480) 894-2056

Fax: (480) 894-2497

Reconnaissance Date: November 23, 2021

Site Assessor: Mr. Chris Nevison

Senior Reviewer: Mr. Robert Petrisko

Environmental Professional: Mr. Robert Petrisko,
Mr. Edwin Vandegrift

Client Information:

AMERCO Real Estate Company
Ms. Haley Ziesemer
2727 North Central Avenue
Phoenix, California 85004
Phone: (602) 263-6555

Environmental Professional Statement:

We declare that, to the best of our professional knowledge and belief, we meet the definition of *Environmental Professional* as defined in § 312.10 part of 40 CFR 312. We have the specific qualifications based on education, training and experience to assess a property of the nature, history and setting of the subject property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.



McKenzie Wenger
Staff Scientist



Robert Petrisko, Client Manager
Senior Project Manager / Senior Reviewer / Environmental Professional



Edwin Vandegrift, R.G., Client Manager
Environmental Operations Manager / Environmental Professional

1.2 Findings and Conclusions Summary

ATC Group Services LLC (ATC), doing business as Atlas Technical (Atlas), has performed this Phase I Environmental Site Assessment (ESA) of the property in conformance with the scope and limitations of the American Society for Testing and Materials (ASTM) Standard Practice E1527-13. Any exceptions to, or deletions from, this practice are described in Section 2.0 of this report. This assessment has revealed no evidence of *recognized environmental conditions* in connection with the property.

Table 1.2

FINDINGS AND CONCLUSIONS SUMMARY						
Report Section	Further Action?	De minimis Condition	REC and/or CREC	Historical REC	ASTM Non-Scope Condition	Description
4.0	User Provided Information	No				
5.1.1	Federal Database Findings	No				
5.1.2	State and Tribal Database Findings	No				
5.1.3	Local Environmental Record Sources	No				
5.3	Historical Records Sources	No				
6.2	Hazardous Substance Use, Storage and Disposal	No				
6.3	Underground Storage Tanks	No				
6.4	Aboveground Storage Tanks	No				
6.5	Other Petroleum Products	No				
6.6	Polychlorinated Biphenyls (PCBs)	No				
6.7	Unidentified Substance Containers	No				
6.8	Nonhazardous Solid Waste	No				
6.9	Wastewater	No				
6.10	Waste Pits, Ponds and Lagoons	No				
6.11	Sumps	No				
6.12	Septic Systems	No				
6.13	Stormwater Management System	No				
6.14	Wells	No				
6.15	Pesticides and Herbicides	No				
6.16	Refrigerant-Containing Appliances	No				
6.17	Railroad Spurs	No				
6.18	Pipeline Markers	No				
6.19	Hydraulic Equipment	No				
6.20	Other Condition, Feature or Operation	No				
7.0	Subsurface Vapor Migration	No				
8.0	Interviews	No				
9.1	Asbestos-Containing Material (ACM)	No				
9.2	Radon	No				
9.3	Lead in Drinking Water	No				
9.4	Lead-Based Paint (LBP)	No				
9.5	Mold Screening	No				
9.6	Additional User Requested Services	No				

1.3 Significant Data Gap Summary

Data gaps may have been encountered during the performance of this Phase I ESA and are discussed within the section of the report where they were encountered. However, according to ASTM Standard Practice E1527-13, data gaps are only significant if "other information and/or professional experience raise reasonable concerns involving the data gap." The following is a summary of *significant data gaps* identified in this report.

Table 1.3

SIGNIFICANT DATA GAP SUMMARY		
	Report Section	Description
3.5	Current Uses of Adjoining Properties	No <i>significant data gap</i> identified.
4.2	Environmental Liens or Activity and Use Limitations (AULs)	No <i>significant data gap</i> identified.
5.1	Standard Environmental Records	No <i>significant data gap</i> identified.
5.2	Physical Setting Sources	No <i>significant data gap</i> identified.
5.3	Historical Records Sources	No <i>significant data gap</i> identified.
6.1	Methodology and Limiting Conditions	Based on the type of property (fallow agricultural land), it was not possible for Atlas to observe every square foot of the property. However, Atlas viewed as much of the property as possible in order to make appropriate conclusions and recommendations regarding <i>recognized environmental conditions</i> . Atlas does not consider this limiting condition to be a <i>significant data gap</i> for this report.
7.0	Interviews	No <i>significant data gap</i> identified.

1.4 Recommendations

Based on the information collected from this Phase I ESA, Atlas offers no recommendations for further investigation with regard to *recognized environmental conditions*.

2.0 INTRODUCTION

2.1 Purpose

The purpose of this Phase I ESA was to identify *recognized environmental conditions* in connection with the property at the time of the site reconnaissance. The scope of work for this Phase I ESA may also include certain potential environmental conditions beyond the scope of ASTM Standard Practice E1527-13 as listed below. This report documents the findings, opinions and conclusions of the Phase I ESA.

2.2 Scope

This Phase I ESA was conducted in general accordance with the ASTM Standard Practice E1527-13, consistent with a level of care and skill ordinarily practiced by the environmental consulting profession currently providing similar services under similar circumstances. Significant additions, deletions or exceptions to ASTM Standard Practice E1527-13 are noted below or in the corresponding sections of this report. The scope of this assessment included an evaluation of the following:

- Physical setting characteristics of the property through a review of referenced sources such as topographic maps and geologic, soils and hydrologic reports.
- Usage of the property, adjoining properties and surrounding area through a review of referenced historical sources such as land title records, fire insurance maps, city directories, aerial photographs, prior reports and interviews.
- Observations and interviews regarding current property usage and conditions including: the use, treatment, storage, disposal or generation of hazardous substances, petroleum products, hazardous wastes, nonhazardous solid wastes and wastewater.
- Usage of adjoining and surrounding area properties and the likely impact of known or suspected releases of hazardous substances or petroleum products from those properties in, on or at the property.
- Information in referenced environmental agency databases and local environmental records, within the specified approximate minimum search distance from the property.
- Potential for subsurface vapor migration in, on or at the property as described in Section 7.0.

The scope of the assessment also included consideration of the following potential environmental issues or conditions that are beyond the scope of ASTM Standard Practice E1527-13:

- The scope of work for the Mold Screening was intended to be consistent with ASTM E 2418-06: Standard Guide for Readily Observable Mold and Conditions Conducive to Mold in Commercial Buildings: Baseline Survey Process. The scope of work, including potential deviations from the Standard Guide, is described as follows. The interview was limited to at least one knowledgeable person from property management or engineering staff. The document review was limited to only those relevant documents made readily available to Atlas in a timely manner. The physical observations were limited to certain Heating, Ventilation and Air Conditioning (HVAC) system areas and other readily accessible building areas likely to become subject to water damage, plumbing leaks, and flooding. Unless noted otherwise herein, Atlas observed the HVAC equipment room(s) and accessible mechanical rooms and, in buildings with package units in the ceiling, at least one unit per

floor. Also, unless noted otherwise, Atlas observed accessible areas of the basement (or lowest level), the top floor, the roof (including any penthouse areas) and at least one mid-level floor (if applicable). For multi-story buildings, the total number of floors observed (inclusive of those already mentioned) was intended to be up to 10% of the total number of floors (if readily accessible). For hotel and multi-family buildings, Atlas targeted the lowest and highest levels and roof as described above and up to 10% of units, including one per floor if readily accessible. The Mold Screening did not include destructive methods of observation. No sampling or laboratory analyses were conducted. The Mold Screening service as described herein was limited in scope and by the time and cost considerations typically associated with performing a Phase I ESA. No method can guarantee that a hazard will be discovered if evidence of the hazard is not encountered within the performance of the Mold Screening as authorized and that opinions and conclusions must, out of necessity, be extrapolated from limited information and discrete, non-continuous data points. Unidentified mold or other microbial conditions may exist on the property.

- Visual observation of suspect asbestos-containing materials (ACM), consisting of providing an opinion on the condition of suspect ACM on the property based upon visual observation during the site reconnaissance. No sampling of suspect ACM was conducted.
- Radon document review, consisting of the review of published radon data with regard to the potential for elevated levels of radon gas in the surrounding area of the property. No radon sampling was conducted.
- Lead in Drinking Water Data review, consisting of contacting the water supplier for information regarding whether or not the potable water provided to the property meets the drinking water standards for lead.
- Visual observation of Lead-based paint (LBP), consisting of providing an opinion on the potential for suspect LBP based on the construction date of buildings on the property and visual observation of the condition of suspect LBP.
- Wetlands document review, consisting of a review of a current National Wetlands Inventory map of the surrounding area to note if the property is identified as having a wetland.
- Flood plain document review, consisting of a review of a reasonably ascertainable flood plain map of the surrounding area to note if the property is identified as being located within a flood plain.
- Regulatory Agency File and Records Review, consisting of conducting a file review (i.e., via Freedom of Information Act (FOIA) request or alternative method/source) for the property and/or one adjoining property at one regulatory agency, as warranted by the findings of the ESA.

2.3 Significant Assumption

The assumptions in this report were not considered as having significant impact on the determination of *recognized environmental conditions* associated with the property.

2.4 Limitations and Exceptions

Atlas has prepared this Phase I ESA report using reasonable efforts to identify *recognized environmental conditions* associated with hazardous substances or petroleum products in, on or at the property. Findings contained within this report are based on information collected from observations made on the day of the

site reconnaissance and from reasonably ascertainable information obtained from certain public agencies and other referenced sources.

The ASTM Standard Practice E1527-13 recognizes inherent limitations for Phase I ESAs, including, but not limited to:

- *Uncertainty Not Eliminated* – A Phase I ESA cannot completely eliminate uncertainty regarding the potential for *recognized environmental conditions* in connection with any property.
- *Not Exhaustive* – A Phase I ESA is not an exhaustive investigation of the property and environmental conditions on such property.
- *Past Uses of the Property* – Phase I requirements only require review of standard historical sources at five year intervals. Therefore, past uses of property at less than five year intervals may not be discovered.

Users of this report may refer to ASTM Standard Practice E1527-13 for further information regarding these and other limitations. This report is not definitive and should not be assumed to be a complete and/or specific definition of all conditions above or below grade. Current subsurface conditions may differ from the conditions determined by surface observations, interviews and reviews of historical sources. The most reliable method of evaluating subsurface conditions is through intrusive techniques, which are beyond the scope of this report. Information in this report is not intended to be used as a construction document and should not be used for demolition, renovation, or other property construction purposes. Any use of this report by any party, beyond the scope and intent of the original parties, shall be at the sole risk and expense of such user.

Atlas makes no representation or warranty that the past or current operations at the property are, or have been, in compliance with all applicable federal, state and local laws, regulations and codes. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated. Regardless of the findings stated in this report, Atlas is not responsible for consequences or conditions arising from facts not fully disclosed to Atlas during the assessment.

An independent data research company provided the government agency database referenced in this report. Information on surrounding area properties was requested for approximate minimum search distances and is assumed to be correct and complete unless obviously contradicted by Atlas' observations or other credible referenced sources reviewed during the assessment. Atlas shall not be liable for any such database firm's failure to make relevant files or documents properly available, to properly index files, or otherwise to fail to maintain or produce accurate or complete records.

Atlas makes no warranty, guarantee or certification regarding the quality, accuracy or reliability of any prior report provided to Atlas and discussed in this Phase I ESA report. Atlas expressly disclaims any and all liability for any errors or omissions contained in any prior reports provided to Atlas and discussed in this Phase I ESA report.

Atlas used reasonable efforts to identify evidence of aboveground and underground storage tanks and ancillary equipment on the property during the assessment. "Reasonable efforts" were limited to observation of accessible areas, review of referenced public records and interviews. These reasonable efforts may not identify subsurface equipment or evidence hidden from view by things including, but not limited to, snow cover, paving, construction activities, stored materials and landscaping.

Any estimates of costs or quantities in this report are approximations for commercial real estate transaction due diligence purposes and are based on the findings, opinions and conclusions of this assessment, which are limited by the scope of the assessment, schedule demands, cost constraints, accessibility limitations and other factors associated with performing the Phase I ESA. Subsequent determinations of costs or quantities may vary from the estimates in this report. The estimated costs or quantities in this report are not intended to be used for financial disclosure related to the Financial Accounting Standards Board (FASB) Statement No. 143, FASB Interpretation No. 47, Sarbanes/Oxley Act or any United States Securities and Exchange Commission reporting obligations, and may not be used for such purposes in any form without the express written permission of Atlas.

Atlas is not a professional title insurance or land surveyor firm and makes no guarantee, express or implied, that any land title records acquired or reviewed in this report, or any physical descriptions or depictions of the property in this report, represent a comprehensive definition or precise delineation of property ownership or boundaries.

The Environmental Professional Statement in Section 1.1 of this report does not “certify” the findings contained in this report and is not a legal opinion of such *Environmental Professional*. The statement is intended to document Atlas’ opinion that an individual meeting the qualifications of an Environmental Professional was involved in the performance of the assessment and that the activities performed by, or under the supervision of, the *Environmental Professional* were performed in conformance with the standards and practices set forth in 40 CFR Part 312 per the methodology in ASTM Standard Practice E1527-13 and the scope of work for this assessment.

Per ASTM Standard Practice E1527-13, Section 6, User Responsibilities, the User of this assessment has specific obligations for performing tasks during this assessment that will help identify the possibility of *recognized environmental conditions* in connection with the property. Failure by the User to fully comply with the requirements may impact their ability to use this report to help qualify for *Landowner Liability Protections* (LLPs) under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Atlas makes no representations or warranties regarding a User’s qualification for protection under any federal, state or local laws, rules or regulations.

In accordance with the ASTM Standard Practice E1527-13, this report is presumed to be valid for a six month period. If the report is older than six months, the following information must be updated in order for the report to be valid: (1) regulatory review, (2) site visit, (3) interviews, (4) specialized knowledge and (5) environmental liens search. Reports older than one year may not meet the ASTM Standard Practice E1527-13 and therefore, the entire report must be updated to reflect current conditions and property-specific information.

Other limitations and exceptions that are specific to the scope of this report may be found in corresponding sections.

2.5 Special Terms and Conditions (User Reliance)

This report is for the use and benefit of, and may be relied upon by AMERCO Real Estate Company (AREC), and any of its affiliates and their respective successors and assigns, in connection with a commercial real estate transaction involving the property. No third party is authorized to use this report for any purpose. Any use by or distribution of this report to third parties, without the express written consent of Atlas, is at the sole risk and expense of such third party.

3.0 SITE DESCRIPTION

3.1 Location and Legal Description

The property is located at 9203 South H Street in Bakersfield, California, 93307. The approximate 11.45-acre property is identified by Kern County as the following Assessor's Parcel Number (APN).

- APN 514-060-05

The property is generally located south of McKee Road between Golden State Highway (East) and South H Street (West) on the southern edge of Bakersfield in Kern County, California. The Site Vicinity Map is included in Appendix A, the Site Plan in Appendix B, and Site Photographs are provided in Appendix C.

3.2 Surrounding Area General Characteristics

The property is located within an area characterized primarily by undeveloped, commercial, and residential properties. Surface topography across the property and in the surrounding area is generally flat with a slope toward the south-southeast. Specific adjacent and abutting properties are summarized in Section 3.5.

3.3 Current Use of the Property

The property consists of approximately 11.45 acres of vacant, former agricultural land. A Site Plan of the property is included in Appendix B.

3.4 Description of Property Improvements

The following table provides general descriptions of the property improvements.

Table 3.4

PROPERTY IMPROVEMENTS	
Size of Property (approximate)	11.45 acres
General Topography of Property	Generally flat with a slope toward the south-southeast.
Adjoining and/or Access/Egress Roads	Golden State Highway 99 adjoins and provides access to the property to the west. South H Street adjoins and provides access to the property to the east.
Paved or Concrete Areas (including parking)	None
Unimproved Areas	The property is considered unimproved.
Landscaped Areas	None
Surface Water	None
Potable Water Source	None (City of Bakersfield in the vicinity)
Sanitary Sewer Utility	None (City of Bakersfield in the vicinity)
Storm Sewer Utility	None (City of Bakersfield in the vicinity)
Electrical Utility	None (Pacific Gas and Electric Company in the vicinity)
Natural Gas Utility	None
Current Occupancy Status	Unoccupied
Unoccupied Buildings/Spaces/Structures	N/A (Not Applicable)
Number of Occupied Buildings	N/A

3.5 Current Uses of Adjoining Properties

Current uses of the adjoining properties were observed to be as follows:

Table 3.5

Direction from Property	Address	Occupant(s) Name	Current Use	Potential Environmental Conditions
North	1751 McKee Road	Kern Delta Park and Ride	Commercial	None
	9001 South H Street	Clinica Sierra Vista	Commercial	None
East	South H Street	None	Roadway	None
	Kern Island Canal	None	Water Canal	None
	1518 Mornington Avenue 9119-9219 Flinders Street	Private residences	Residential	None
South	9407 and 9435 South H Street	Private residences	Residential	None
West	Golden State Highway 99	None	Roadway	None
	No Address	Vacant Land	Vacant Land	None

The immediate surrounding area is characterized by minimal commercial and business properties. Based on our site reconnaissance, none of the adjacent properties appear to represent a *recognized environmental condition* to the property.

4.0 USER PROVIDED INFORMATION

The following section summarizes information (if any) provided by AREC (User) with regard to the Phase I ESA. Documentation may be found in Appendix D or where referenced in this report.

4.1 Title Records

The User provided no title records information.

4.2 Environmental Liens or Activity and Use Limitations (AULs)

The User provided no information regarding the existence of environmental liens or AULs for the property. Atlas contracted Environmental Data Resources, Inc. (EDR) of Shelton, Connecticut, to perform an environmental lien search of land title records for the property. According to the report, no environmental liens or AULs were identified for the property. A copy of the report is included in Appendix G.

4.3 Specialized Knowledge or Experience of the User

The User indicated that the property currently consisted of undeveloped land. The User provided no specialized knowledge regarding *recognized environmental conditions* associated with the property, if any.

4.4 Significant Valuation Reduction for Environmental Issues

The User provided no information regarding a significant valuation reduction for environmental issues associated with the property.

4.5 Owner, Property Manager and Occupant Information

The User provided the name of Mr. Larry Morgan (Morgan Corp) as a site contact for the property. There are currently no site occupants at the property. According to information obtained, the owner of the property was identified as *Wendwell Nelson Trustee Elvera Nelson Trustee*.

4.6 Reason for Performing Phase I ESA

According to information provided by the User, this Phase I ESA will be used in connection with a property transaction.

4.7 Other User Provided Documents

Per the ASTM Standard Practice E1527-13, Atlas obtained the documents listed below from the User. Further discussion may be found in other relevant sections of this report.

Table 4.7

OTHER USER PROVIDED DOCUMENTS		
Title	Date (if known)	Author and/or Source (if known)
Client Questionnaire	November 18, 2021	Ms. Haley Ziesemer / AREC

5.0 RECORDS REVIEW

5.1 Standard Environmental Records

The regulatory agency database report discussed in this section, provided by EDR, was reviewed for information regarding reported use or release of hazardous substances and petroleum products on or near the property. Unless otherwise noted, the information provided by the regulatory agency database report and other sources referenced in this report, were considered sufficient for *recognized environmental condition (REC)*, *controlled recognized environmental condition (CREC)*, *historical recognized environmental condition (HREC)* or *de minimis condition* determinations without conducting supplemental agency file reviews. Atlas also reviewed the "unmappable" (also referred to as "orphan") listings within the database report, cross-referencing available address information and facility names. Unmappable sites are listings that could not be plotted with confidence, but are potentially in the general area of the property, based on the partial street address, city, or zip code. Any unmappable site that was identified by Atlas as being within the approximate minimum search distance from the property, based on the site reconnaissance and/or cross-referencing to mapped listings, is included in the discussion within this section. The complete regulatory agency database report may be found in Appendix E.

The following is a summary of the findings of the database review.

Table 5.1

SUMMARY OF FEDERAL, STATE AND TRIBAL DATABASE FINDINGS			
Regulatory Database	Approx. Minimum Search Distance	Property Listed?	# Sites Listed
Federal National Priority List (NPL)	1 mile	No	0
Federal Delisted NPL	½ mile	No	0
Federal Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) list, currently known as Superfund Enterprise Management System (SEMS)	½ mile	No	0
Federal CERCLIS No Further Remedial Action Planned (NFRAP), also known as Superfund Enterprise Management System (SEMS) Archive as of 2015	½ mile	No	0
Federal Resource Conservation and Recovery Act (RCRA), Corrective Action facilities (CORRACTS)	1 mile	No	0
Federal RCRIS non- CORRACTS Treatment, Storage, and Disposal Facilities (TSD)	½ mile	No	0
Federal RCRA Generators	Property & Adjoining	No	0
Federal RCRA NonGenerators	Property & Adjoining	No	0
Federal Institutional Control/Engineering Control Registry	Property	No	NR
Federal FINDS	Property	No	NR
Federal Brownfields	½ mile	No	0
Federal Emergency Response Notification System (ERNS) list	Property	No	NR
Enforcement & Compliance History Information (ECHO)	Property	No	NR
Record of Decision (ROD)	1 mile	No	0
U.S. Mines	Property & Adjoining	No	0
Formerly Used Defense Sites (FUDS)	1 mile	No	0
State and Tribal NPL	1 mile	No	0
State and Tribal Superfund Program List (RESPONSE)	1 mile	No	0

PHASE I ENVIRONMENTAL SITE ASSESSMENT
 11.45 Acres of Undeveloped Land
 9203 South H Street
 Bakersfield, California 93307

SUMMARY OF FEDERAL, STATE AND TRIBAL DATABASE FINDINGS			
Regulatory Database	Approx. Minimum Search Distance	Property Listed?	# Sites Listed
State Hazardous Waste Site (ENVIROSTOR)	1 mile	No	2
State and Tribal CERCLIS	½ mile	No	0
State and Tribal Landfill or Solid Waste Disposal Sites	½ mile	No	0
State and Tribal Leaking Underground Storage Tanks (LUST)	½ mile	No	2
State and Tribal Registered Underground Storage Tanks (UST)	Property & Adjoining	No	0
State and Tribal Aboveground Storage Tanks (AST)	Property & Adjoining	No	0
State Activity and Use Limitations (AUL)	½ mile	No	0
State and Tribal Institutional Control/Engineering Control Registry	Property	No	NR
State Electronic Map (EMAP)	Property	No	NR
State Drycleaners	Property & Adjoining	No	0
State Manifest	Property & Adjoining	No	0
State and Tribal Voluntary Cleanup Site (VCP)	½ mile	No	0
State and Tribal Brownfield Sites	½ mile	No	0
State and Tribal Wastewater Facilities (WWFAC)	½ mile	No	0
EDR Historical Auto	Property	No	NR
EDR Historical Cleaner	Property	No	NR

NR - Not Required

5.1.1 Federal Agency Database Findings

According to our review of the information provided in the EDR database, the property was not identified on the federal databases searched. In addition, no federally-listed sites were identified within their applicable ASTM search radii from the property.

5.1.2 State and Tribal Database Findings

According to our review of the information provided in the EDR database, the property was not identified on the state, tribal or proprietary EDR databases reviewed.

Four state-listed sites were identified within their applicable ASTM search radii from the property, consisting of two ENVIROSTOR sites and two LUST sites. Based on the distance, topography, assumed groundwater gradient, and/or current regulatory status, none of the sites listed in the state databases are considered to represent a likely past, present or material threat of release to the property.

5.1.3 Local Environmental Records Sources

Local Health Department

Atlas submitted a written request to the Kern County Public Health Services Department for possible records associated hazardous material files (including UST/AST records) for the property. As of the date of this report, Atlas has not received a response from the Kern County Public Health Services Department. If information is received that will change the conclusions and/or recommendations of this report, an addendum will be issued. While the absence of a response from this agency constitutes a *data gap*, given the other available information, it is not considered to represent a *significant data gap*. A copy of the request confirmation is included in Appendix L.

Local Air Pollution District

Atlas submitted a written request to the San Joaquin Valley Air Pollution Control District (SJVAPCD) for possible records associated with the property. Atlas received a response from the SJVAPCD stating there are no records on file for the property. A copy of the communication is included in Appendix L.

City of Bakersfield Water Utility

According to information reviewed, it appears that the City of Bakersfield provides potable water and sanitary sewer utilities in the general vicinity of the property.

According to the *2020 Water Quality Report for the City of Bakersfield's Domestic Water System*, the water provided in the vicinity of the property meets federal and state requirements for drinking water, including those for copper and lead. A copy of the water quality report is included in Appendix L.

City of Bakersfield

Atlas did not review building department records since the property does not contain any current or historical buildings.

Electrical Utility Company

Electrical utilities are provided to the general property vicinity by Pacific Gas and Electric Company.

Other Local Environmental Records Sources

Atlas reviewed the California Regional Water Quality Control Board (RWQCB) GeoTracker (www.geotracker.waterboards.ca.gov) database for records pertaining to the property. No records were available for the property or adjacent properties.

Department of Toxic Substances Control (DTSC)

Atlas reviewed the DTSC EnviroStor website (www.envirostor.dtsc.ca.gov/public/), which indicated that no records were available for the property or adjacent properties.

No additional local environmental records sources were reviewed.

5.2 Physical Setting Sources

5.2.1 Topography

According to the United States Geological Survey (USGS) topographic map of the *Gosford, California, Quadrangle*, 7.5 minute series, dated 2018, the property is located at an approximate elevation of 352 feet above mean sea level with a topographic gradient to the south-southeast. A copy of the topographic map is included in Appendix A.

5.2.2 Geology

According to information provided in the EDR database report, the rock stratigraphic unit in the area of the property is of the Cenozoic era, Quaternary system and Quaternary series. EDR obtains its geologic data

from the Geologic Age and Rock Stratigraphic Unit Source (P.G. Schruben, R.E. Arndt, and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale, dated 1994).

5.2.3 Soils

According to the United States Department of Agriculture (USDA) website, the soils for the property are classified as Granoso sandy loam and Kimberlina fine sandy loam. These types of soils have moderate infiltration rates with moderately coarse textures. A copy of the soil map is included in Appendix L.

5.2.4 Hydrology

No past groundwater investigations have been identified for the property; thus, no site-specific groundwater information was available. However, regional groundwater flow direction is generally influenced by major hydrogeologic features such as a river or lake. Surface and/or bedrock topography may also influence regional groundwater flow direction. The available hydrogeologic information indicates that the presumed local groundwater flow direction is to the northwest toward the Kern River, located 7.26 miles from the property. According to information reviewed in the EDR database report, depth to groundwater within a half mile of the property is approximately 67 feet below ground surface (bgs).

Actual groundwater flow direction is often locally influenced by factors such as underground structures, seasonal fluctuations in precipitation, soil and bedrock geology, production wells, local usage demands, dewatering operations and other factors beyond the scope of this study. The actual groundwater flow direction under the property can be accurately determined only by installing groundwater monitoring wells, which was beyond the scope of work for this project.

5.2.5 Other Physical Setting Sources

Flood Plain Map

Atlas reviewed the Federal Emergency Management Agency (FEMA), Flood Insurance Rate Map (FIRM) Number 06029C2300E, dated September 26, 2008. According to the map, the property is located in Zone X (area of minimal flood hazard). A copy of the flood plain map is included in Appendix L.

Wetlands Map

Atlas observed no wetlands on the property during the site reconnaissance. Atlas reviewed the United States Fish and Wildlife Service (USFWS) website for the USFWS National Wetlands Inventory (NWI) map for the property. According to the map, a Riverine is depicted to the west of the property, across South H Street. A copy of the wetlands map is included in Appendix L.

5.3 Historical Records Sources

The following table summarizes the findings of the research presented below pertaining to historical property and surrounding area uses.

Table 5.3

HISTORICAL USE SUMMARY				
Period	Identified Historical Uses		Source(s)	Intervals/Comments
	Property	Surrounding Area		
Prior to 1940	Agricultural Land	Agricultural Land	Aerial Photograph (1937) Topographic Maps (1910, 1912, 1932)	No <i>data failure</i>
1941-1960	Agricultural Land	Agricultural Land Residential	Aerial Photographs (1942, 1952, 1956) Topographic Maps (1941, 1942, 1947, 1950, 1954)	No <i>data failure</i> .
1961-1980	Agricultural Land	Agricultural Land Residential	Aerial Photographs (1968, 1973) Topographic Maps (1963, 1973, 1978)	No <i>data failure</i> .
1981-2000	Agricultural Land	Agricultural Land Residential	Aerial Photographs (1984, 1994) City Directories (1986, 1990, 1994, 1999)	No <i>data failure</i> .
2001-present	Agricultural Land	Agricultural Land Residential Commercial	Aerial Photographs (2003, 2006, 2009, 2011, 2012, 2013, 2016, 2021) City Directories (2002, 2004, 2009, 2014, 2017) Historical Title Record (2011) Topographic Maps (2012, 2015, 2018)	No <i>data failure</i> .

Based on the historical research, a *data failure* was not encountered since Atlas was able to identify the property back to 1940 or first developed use, whichever is earlier (as specified in ASTM 1527-13 Section 8.3.2).

As such, the requirements of ASTM Standard Practice E 1527-13 §8.3.2.1 and §8.3.2.2 have been satisfied and, as stated in ASTM Standard Practice E 1527-13 §8.3.2.3, the historical research is considered complete. The historical use research conducted during this Phase I ESA did not identify *recognized environmental conditions* associated with the property.

5.3.1 Aerial Photographs

Atlas reviewed available aerial photographs of the property and surrounding area from EDR and Google Earth. Available aerial photographs ranged from 1937 to 2021.

Based on a review of aerial photographs, the property has been agricultural and fallow agricultural land from at least 1937 through today (December 2021) with no visible buildings or structures. Typically, agricultural facilities utilize agri-chemicals in normal farming practices. However, during the assessment, no indication of procedures or practices (such as crop dusting operations or irrigation tailwater ponds), which would indicate

an enhanced potential for applications of pesticides/herbicides to the property were found. If residual concentrations of these compounds remain in the property's soils, Atlas' experience with similar sites indicates that residual pesticides/herbicides are likely not present in concentrations sufficient to pose an increased risk to human health or the environment during normal property use. It is generally common practice to sample and analyze the surface soil for these compounds if the property is going to be occupied by sensitive receptors (i.e. schools, day care centers, and residential development).

The surrounding areas have also been agricultural land until residential development began to the south in the mid-1950s and to the east in the early-2000s. Commercial development appears to the north beginning in the early-2000s until the most recent development in 2013.

Based on our review, the aerial photographs did not identify past uses indicating *recognized environmental conditions* in, on, or at the property or within the surrounding area. Copies of reproducible aerial photographs are included in Appendix F.

5.3.2 Fire Insurance Maps

A search for fire insurance maps for the property and surrounding area was conducted by EDR. According to EDR, the Sanborn map report "certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found." The "Unmapped Property" documentation is included in Appendix G.

The lack of Sanborn Maps is considered a *data gap*. However, based on the additional historical research conducted in this Phase I ESA, the lack of historical Sanborn Maps is not considered a *significant data gap*.

5.3.3 Property Tax Files

Atlas reviewed limited available tax files online at the Kern County website for historical ownership information on the property. According to the Kern County website, the owner of the property parcel is listed *Wendwell Nelson Trustee Elvera Nelson Trustee* since January 1, 2011. The limited review of tax files did not identify past uses indicating *recognized environmental conditions* in, on, or at the property.

5.3.4 Recorded Land Title Records

The acquisition of recorded land title records was not required by the scope of work for the Phase I ESA.

5.3.5 Historical USGS Topographic Maps

Atlas reviewed the 1910 and 1912 (*Buena Vista Lake*), 1932, 1941, 1942, 1947, 1950, 1954, 1963, 1973, 1978, 2012, 2015 and 2018 *Gosford, California* USGS Topographic Quadrangles of the property area (acquired from EDR) for information regarding past uses of the property.

No buildings, structures, water wells, or other site features were depicted for the property. A road followed by a canal appears adjacent to the east beginning in 1912. Development of the Golden State Highway 99, adjacent to the west, appears beginning in 1968. Other than small structures appearing to the south, no other site specific features were identified on the adjacent properties in the reviewed maps.

The review of the historical USGS Topographic Maps did not identify past uses indicating *recognized environmental conditions* in, on, or at the property or in the surrounding area. Topographic documentation is included in Appendix G.

5.3.6 City Directories

Research regarding the availability of historical city directories was conducted by EDR. Available historical city directory listings for the property and surrounding areas included 1986, 1990, 1994, 1999, 2002, 2004, 2009, 2014, and 2017. According to a review of the information, an address associated with the property was not listed. The North adjacent property (1751 McKee Road) is listed as Greenfield Senior Center in 2017. Properties to the east (9119-9219 Flinders Street) are listed as private residences in 1999, 2002, 2004, 2009, and 2014. Properties to the south (9407 and 9435 South H Street) are listed as private residences in 1986, 1990, 1994, 1999, 2002, 2004, 2009, 2014, and 2017.

Based on our review of historical city directories, none of the listings appear to represent a *recognized environmental condition* to the property. The City Directory Abstract is included in Appendix G.

5.3.7 Building Department Records

Refer to Section 5.1.3.

5.3.8 Zoning/Land Use Records

Refer to Section 5.1.3.

5.3.9 Prior Reports

No prior assessment documentation was reviewed.

5.3.10 Other Historical Sources

No other historical sources were reviewed.

6.0 SITE RECONNAISSANCE

The following is a summary of visual and/or physical observations of the property on the day of the site visit. Site Photographs are provided in Appendix C.

6.1 Methodology and Limiting Conditions

Mr. Chris Nevison, Senior Geologist, conducted the site reconnaissance of the property on November 23, 2021. The site reconnaissance consisted of visual and/or physical observations of: the property and improvements; adjoining sites as viewed from the property; and, the surrounding area based on visual observations made during the trip to and from the property. Weather at the time of the site visit was sunny with a temperature of 70 degrees.

At the time of the site reconnaissance, the property consisted of approximately 11.45 acres of vacant, former agricultural land. Based on our site reconnaissance, no hazardous chemical/hazardous material use, storage or disposal, dry wells, aboveground storage tanks, soil staining or evidence of underground storage tanks were observed on the property.

Based on the lack of drivable roads and type of property (vacant, former agricultural land), it was not possible for Atlas to observe every square foot of the property. However, Atlas viewed as much of the property as possible in order to make appropriate conclusions and recommendations regarding *recognized environmental conditions*.

6.2 Hazardous Substance Use, Storage, and Disposal

Atlas did not observe evidence of hazardous substance use, storage, or disposal located in, on, or at the property.

6.3 Underground Storage Tanks (USTs)

Atlas did not observe evidence of USTs located in, on, or at the property.

6.4 Aboveground Storage Tanks (ASTs)

Atlas did not observe evidence of petroleum-containing ASTs located in, on, or at the property.

6.5 Other Petroleum Products

Atlas did not observe evidence of other petroleum products located in, on, or at the property.

6.6 Polychlorinated Biphenyls (PCBs)

Atlas did not observe electrical transformers or PCB-containing equipment located in, on or at the property.

6.7 Unidentified Substance Containers

Atlas did not observe unidentified substance containers located in, on, or at the property.

6.8 Nonhazardous Solid Waste

Aside from minor wind-blown trash, Atlas did not observe evidence of nonhazardous solid waste located in, on or at the property.

6.9 Wastewater

Atlas did not observe evidence of wastewater (including sanitary sewage) being generated, treated or discharged in, on or at the property or to adjoining properties.

6.10 Waste Pits, Ponds and Lagoons

Atlas did not observe evidence of waste pits, ponds or lagoons located in, on, or at the property.

6.11 Drains and Sumps

Atlas did not observe evidence of drains or sumps located in, on, or at the property.

6.12 Septic Systems

Atlas did not observe evidence of a septic system located in, on, or at the property.

6.13 Stormwater Management System

Atlas did not observe specific stormwater management systems or features (dry wells, sewer grates, retention basins) on the property. Stormwater that accumulates on the property appears to pond in low-lying areas of the property or follow natural drainage patterns that lead in a southerly direction.

6.14 Wells

Atlas did not observe evidence of wells located in, on, or at the property.

6.15 Pesticides and Herbicides

Atlas did not observe evidence of the usage of pesticides or herbicides in, on or at the property.

6.16 Refrigerant-Containing Appliances

Atlas did not observe refrigerant-containing appliances in, on or at the property.

6.17 Railroad Spurs

Atlas did not observe evidence of railroad spurs in, on or at the property.

6.18 Pipeline Markers

Atlas did not observe pipeline markers located in, on or at the property.

6.19 Hydraulic Equipment

Atlas did not observe evidence of hydraulic equipment in, on or at the property.

6.20 Other Condition, Feature or Operation

Atlas did not observe evidence of other conditions, features, or operations in, on or at the property that would be considered a *recognized environmental condition*.

7.0 SUBSURFACE VAPOR MIGRATION

Hazardous gases (vapor) from subsurface sources, such as contaminated soil or groundwater can migrate into residential, commercial, and industrial buildings with any foundation type, including basements, crawlspaces, or slabs. According to EPA guidance, three conditions must exist for hazardous vapors to reach the interior of buildings from the subsurface environment underneath or near a building. First, a source of hazardous vapors must be present in the soil or in groundwater underneath or near a building. Second, vapors must form and have a pathway along which to migrate toward the building. Third, entry routes must exist for the vapors to enter the building, and driving forces must exist to draw the vapors into the building.

The screening was further refined by evaluating the Critical Distance (CD) factor. The CD is the upper distance a vapor may migrate through soil in the vadose zone assuming the path of least resistance is directly from the closest boundary of the contaminated media (i.e. groundwater or soil) to the nearest property boundary. For non-petroleum hydrocarbon chemicals of concern (COCs), the CD is 100 feet. For light non-aqueous phase liquid (LNAPL) petroleum hydrocarbon COCs, the CD is also 100 feet. For dissolved petroleum hydrocarbon COCs, the CD is 30 feet.

Atlas considered the nature and extent of on-site and nearby sources of potential subsurface vapor migration by evaluating the current and historical usage of the property, the construction type and history, the physical setting, and the potential sources of subsurface vapor migration through the review of regulatory agency database information that was summarized in Section 5.0. Based on the evaluation of the known or suspected releases of hazardous substances or petroleum products, distance from the property, potential pathways, and soil type, et al, no potential subsurface vapor migration sources were determined to represent a *recognized environmental condition* on the property.

8.0 INTERVIEWS

The following persons were interviewed to obtain information regarding *recognized environmental conditions* in connection with the property:

Table 8.0

INTERVIEWS				
Role	Name	Title and/or Company	Date	Interview Type
Current Owner	N/A	<i>Wendwell Nelson Trustee</i> <i>Elvera Nelson Trustee</i>	N/A	No Phone Number Found
Client	Ms. Haley Zieseimer	Environmental Specialist/AREC	November 18, 2021	User Questionnaire

The User did not provide contact information for the current or prior owners of the property and no information was found.

Not included in this listing are those governmental employees who were contacted solely to obtain public information pertaining to the property and who would not be expected to have first-hand knowledge of *recognized environmental conditions* at the property. Pertinent information from the interviews is discussed in applicable sections of this report with details (including failed attempts to interview) documented on Record of Conversation forms in Appendix J, if applicable.

9.0 OTHER ENVIRONMENTAL CONDITIONS

9.1 Asbestos-Containing Materials (ACM)

Efforts were made by Atlas to visually identify the presence of the most obvious and common ACM at the property. No specific evidence of ACM was visually identified since no permanent buildings or structures are currently located on the property. Based on the scope of work, Atlas did not conduct sampling at the property for ACM.

9.2 Radon

Radon is a naturally occurring colorless, odorless gas that is a by-product of the decay of radioactive materials potentially present in bedrock and soil. The EPA guidance action level for annual residential exposure to radon is 4.0 picoCuries per liter of air (pCi/L). The guidance action level is not a regulatory requirement for private owners of commercial real estate, but is commonly used for comparison purposes to suggest whether further action at a building may be prudent.

Atlas' review of published radon data indicates that the property is located in U.S. EPA Radon Zone 2, an area of moderate propensity with regard to the potential for elevated levels of radon gas. Of the seven sites tested in the property Zip Code (93307), 100% of the sites registered a level of less than 4.0 pCi/L in the first floor living area. A radon survey was not completed as a supplement to this Phase I ESA. However, based on the reported concentration in the area, no additional investigation appears warranted at this time.

9.3 Lead in Drinking Water

According to the *2020 Water Quality Report for the City of Bakersfield's Domestic Water System*, the water provided in the vicinity of the property meets federal and state requirements for drinking water, including those for copper and lead. Lead in drinking water testing was not conducted for this Phase I ESA.

9.4 Lead-Based Paint (LBP)

A survey for the presence of LBP on painted surfaces was not included in the scope of this ESA. Based on the lack of painted permanent buildings at the property, no potential LBP was observed during Atlas' assessment.

9.5 Mold Screening

Based on the lack of buildings at the property, a screening for potential mold was not conducted during Atlas' assessment.

9.6 Additional User Requested Conditions

No additional User requested services were included in the scope of work for this ESA.

10.0 REFERENCES

- ASTM International, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, ASTM Designation E1527-13, November 2013.
- ASTM International, Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions, ASTM Designation E 2600-15, December 2015.
- California Environmental Protection Agency, <https://calepa.ca.gov/>.
- California, State of, Environmental Protection Agency, Department of Toxic Substances Control, EnviroStor website, <http://www.envirostor.dtsc.ca.gov/public>.
- California Geological Survey, Interactive Geological Map of California, <https://www.conservation.ca.gov/cgs/publications/geologic-map-of-california>, 2015.
- City of Bakersfield, 2020 Annual Water Quality Report.
- EDR, The EDR Aerial Photo Decade Package, Inquiry Number 6757422.11, dated November 19, 2021.
- EDR, Certified Sanborn® Map Report, Inquiry Number 6757422.3, dated November 19, 2021.
- EDR, The EDR Radius Map Report with GeoCheck®, Inquiry Number 6757422.2s, dated November 19, 2021.
- EDR, EDR Historical Topographic Map Report, Inquiry Number 6757422.4, dated November 19, 2021.
- EDR, The EDR-Building Permit Report, Inquiry Number 6757422.8, dated November 19, 2021.
- EDR, The EDR-City Directory Abstract, Inquiry Number 6757422.5, dated November 19, 2021.
- EDR, The EDR Environmental Lien and AUL Search, Inquiry Number 6757422.7, dated November 22, 2021.
- Federal Emergency Management Agency (FEMA), Flood Insurance Rate Map (FIRM) Number 06029C2300E, dated September 26, 2008.
- Google Earth, historical aerial photographs.
- Kern County Assessor's Office.
- Kern County Public Health Services Department.
- San Joaquin Valley Air Pollution Control District (SJVAPCD).
- United States Department of Agriculture (USDA), Natural Resources Conservation Service website, *Web Soil Survey*, <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>.
- United States Fish and Wildlife Service (USFWS), wetlands mapper website, <http://nwi.fws.gov>.
- United States Geological Survey (USGS), 7.5-Minute Series, Topographic Map, *Gosford, California*, 2018.

11.0 TERMINOLOGY

The following provides definitions and descriptions of certain terms that may be used in this report. Italics indicate terms that are defined by ASTM Standard Practice E1527-13. The Standard Practice should be referenced for further detail (such as the precise wording), related definitions or additional explanation regarding the meaning of terms.

recognized environmental condition(s) (REC) - the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment.

material threat - a physically observable or obvious threat which is reasonably likely to lead to a release that, in the opinion of the environmental professional (EP), is threatening and might result in impact to public health or the environment. An example might include an aboveground storage tank system that contains a hazardous substance and which shows evidence of damage such that it may cause or contribute to tank integrity failure with a release of contents to the environment.

de minimis condition - is a condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of the appropriate governmental agencies. An example might include a release of *hazardous substances* or *petroleum products* that could reasonably and foreseeably result in a concentration exceeding the applicable regulatory agency risk-based residential standards or substantial damage to natural resources. The risk of that exposure or damage would represent a threat to human health or the environment. If an enforcement action would be less likely than not, then the condition is considered to be generally not likely the subject of an enforcement action. A condition determined to be *de minimis* is not a *REC* or *controlled recognized environmental condition (CREC)*.

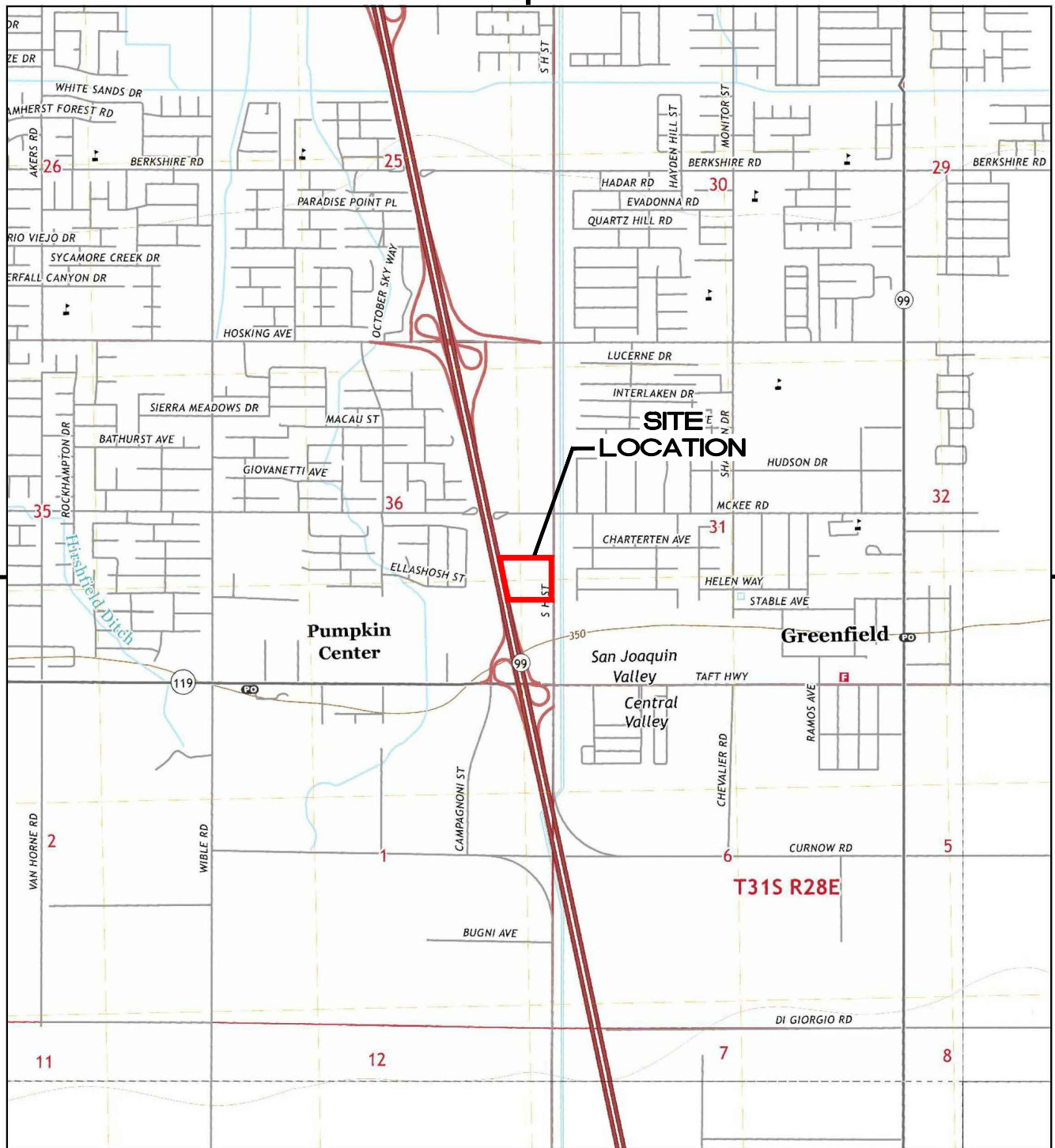
historical recognized environmental condition(s) (HREC) - a past release of any *hazardous substances* or *petroleum products* that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). Before calling the past release a *HREC*, the EP must determine whether the past release is a *REC* at the time the assessment is conducted (for example, if there has been a change in the regulatory criteria). If the EP considers the past release to be a *REC* at the time the Phase I ESA is conducted, the condition will be reported in Section 1.2 the Findings and Conclusions Summary table as a *REC*.

controlled recognized environmental condition (CREC) - a *recognized environmental condition* resulting from a past release of *hazardous substances* or *petroleum products* that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitation, institutional controls, or engineering controls). Per E1527-13, a *CREC* will be reported in the Section 1.2 Findings and Conclusions Summary table as a *CREC* and a *REC*.

migrate/migration - refers to the movement of *hazardous substances* or *petroleum products* in any form, including, for example, solid and liquid at the surface or subsurface, and vapor in the subsurface.

PHASE I ENVIRONMENTAL SITE ASSESSMENT
11.45 Acres of Undeveloped Land
9203 South H Street
Bakersfield, California 93307

APPENDIX A
SITE VICINITY MAP



SOURCE: USGS TOPO MAP, GOSFORD, LAMONT, WEED PATCH & CONNER, CA, QUADS, 2018

SITE VICINITY MAP

11.45 ACRES OF UNDEVELOPED LAND
 9203 S. H STREET
 BAKERSFIELD, CA 93307

PROJECT NUMBER: 1051000773	DATE: 12/13/21	FIGURE
APPROVED BY: MW	DRAWN BY: BK	A

ATLAS 9185 S. Farmer Ave., Ste. #111
 Tempe, Arizona 85284-2912
 Ph: (480) 894-2056 *** Fax: (480) 894-2497

PHASE I ENVIRONMENTAL SITE ASSESSMENT
11.45 Acres of Undeveloped Land
9203 South H Street
Bakersfield, California 93307

APPENDIX B
SITE PLAN



NOT TO SCALE
SOURCE: AIRBUS 2021
NOTE: ALL LOCATIONS ARE APPROXIMATE



SITE PLAN

11.45 ACRES OF UNDEVELOPED LAND
9203 S. H STREET
BAKERSFIELD, CA 93307

PROJECT NUMBER: 1051000773

APPROVED BY: MW

DATE: 12/13/21

DRAWN BY: BK

FIGURE

B

ATLAS 9185 S. Farmer Ave., Ste. #1111
Tempe, Arizona 85284-2912
Ph: (480) 894-2056 *** Fax: (480) 894-2497

PHASE I ENVIRONMENTAL SITE ASSESSMENT
11.45 Acres of Undeveloped Land
9203 South H Street
Bakersfield, California 93307

APPENDIX C
SITE PHOTOGRAPHS

PHASE I ENVIRONMENTAL SITE ASSESSMENT
11.45 Acres of Undeveloped Land
9203 South H Street
Bakersfield, California 93307



Photograph 1: General view from the northeast corner facing west.



Photograph 2: General view from the northeast corner facing southwest.



Photograph 3: General view from the northeast corner facing south.



Photograph 4: General view from the northwest corner facing south.



Photograph 5: General view from the southwest corner facing north.



Photograph 6: General view from the southeast corner facing northwest.

PHASE I ENVIRONMENTAL SITE ASSESSMENT
11.45 Acres of Undeveloped Land
9203 South H Street
Bakersfield, California 93307



Photograph 7: General view from the center of the property facing south.

APPENDIX D
USER PROVIDED DOCUMENTATION



ATTACHMENT CLIENT QUESTIONNAIRE

Per ASTM Standard Practice E1527-13, Section 6, User Responsibilities, the User of an ESA has specific obligations for performing tasks during the ESA that will help identify the possibility of *recognized environmental conditions* in connection with the property. Failure by the User to fully comply with the requirements may result in a *data gap* being identified in the report and may impact their ability to use the report to help qualify for *Landowner Liability Protections* (LLPs) under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). If this questionnaire is not returned to Atlas prior to issuance of the draft report, then Atlas assumes that the User does not have any information or actual knowledge pursuant to ASTM Standard Practice E1527-13, Section 6, User Responsibilities. Atlas makes no representations or warranties regarding a User's qualification for protection under any federal, state or local laws, rules or regulations.

Please complete the following and return immediately via email or fax to the attention of:
Robert Petrisko at robert.petrisko@oneatlas.com.
If other parties are intending to be the Users of the ESA report, then please forward a copy of this questionnaire for them to complete and return to Atlas.

Site Name: 11.45 Acres of Unimproved Land

Site Address: 9407 South H. Street, Bakersfield, California 93307

Parcel Number(s): 514-060-05 (Kern County)

Site Contact: Larry (morgancorp@bak.rr.com), 661-301-0048

Relying Parties: _____

Atlas Project Number: Proposal No. 21-17166

Please provide the following information (if available) per the requirements of ASTM E1527-13.

1. Environmental cleanup liens that are filed or recorded against the site (40 CFR 312.25)

Are you aware of any environmental cleanup liens against the site that are filed or recorded under federal, tribal, state or local law? Yes or No

If yes, please provide a description of the lien(s).



2. Activity and land use limitations (AULs) that are in place on the site or that have been filed or recorded in a registry (40 CFR 312.26)

Are you aware of any AULs, such as engineering controls, land use restrictions or institutional controls that are in place at the site and/or have been filed or recorded in a registry under federal, tribal, state or local law? Yes or No If yes, please provide.

3. Specialized knowledge or experience of the person seeking to qualify for the Landowner Liability Protections (40 CFR 312.28)

As the user of this ESA do you have any specialized knowledge or experience related to the site or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the site or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?

Yes or No If yes, please explain.

4. Relationship of the purchase price to the fair market value of the site if it were not contaminated (40 CFR 312.29)

a. Does the purchase price being paid for this site reasonably reflect the fair market value of the site? Yes or No

b. If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the site? Yes or No If yes, please explain.

5. Commonly known or reasonably ascertainable information about the site (40 CFR 312.30)

Are you aware of commonly known or reasonably ascertainable information about the site that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example, as user,

- a. Do you know the past uses of the site? Yes or No If yes, please state.

- b. Do you know of specific chemicals that are present or once were present at the site? Yes or No If yes, please state.

- c. Do you know of spills or other chemical releases that have taken place at the site? Yes or No If yes, please state.

- d. Do you know of any environmental cleanups that have taken place at the site? Yes or No If yes, please state.

6. The degree of obviousness of the presence or likely presence of contamination at the site, and the ability to detect the contamination by appropriate investigation (40 CFR 312.31)

As the user of this ESA, based on your knowledge and experience related to the site are there any obvious indicators that point to the presence or likely presence of contamination at the site? Yes or No If yes, please explain.

This questionnaire was completed by:

Property Role User Current Owner Property Occupant Other

Name Haley Ziesemer

Title Environmental Specialist

Signature 

Company of User AREC

Address of User 2727 North Central Avenue, Suite 500
Phoenix, Arizona 85004

Date 11/18/2021

Prior Environmental Reports Available Yes or No

Please complete the above and return immediately via email or fax to the attention of:
Robert Petrisko: robert.petrisko@oneatlas.com

PHASE I ENVIRONMENTAL SITE ASSESSMENT
11.45 Acres of Undeveloped Land
9203 South H Street
Bakersfield, California 93307

APPENDIX E
REGULATORY DATABASE REPORT

AREC - Vacant Land

9407 South H Street
Bakersfield, CA 93307

Inquiry Number: 6757422.2s

November 19, 2021

The EDR Radius Map™ Report with GeoCheck®



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Thank you for your business.
 Please contact EDR at 1-800-352-0050
 with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E1527-21), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

9407 SOUTH H STREET
BAKERSFIELD, CA 93307

COORDINATES

Latitude (North): 35.2713760 - 35° 16' 16.95"
Longitude (West): 119.0225160 - 119° 1' 21.05"
Universal Transverse Mercator: Zone 11
UTM X (Meters): 316036.3
UTM Y (Meters): 3904815.2
Elevation: 352 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 12013990 GOSFORD, CA
Version Date: 2018

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from: 20140617
Source: USDA

MAPPED SITES SUMMARY

Target Property Address:
 9407 SOUTH H STREET
 BAKERSFIELD, CA 93307

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
1	GREENFIELD COUNTY WA	1604 CHARTERTEN AVE	CUPA Listings, CERS	Higher	333, 0.063, NE
A2	GIC CORPORATION	2055 MCKEE RD	CERS HAZ WASTE, CERS	Higher	513, 0.097, NW
A3	GIC CORPORATION DBA	2055 MCKEE RD	RCRA NonGen / NLR	Higher	513, 0.097, NW
4	ROGER MEARS RACING	8831 SORREL	RCRA-SQG, FINDS, ECHO	Higher	929, 0.176, NNE
5	JOHNNY QUIK #143	2126 TAFT HWY	LUST, Cortese, HIST CORTESE	Lower	1443, 0.273, SSW
B6	MIKULS TRUCK STOP	2201 TAFT	CA FID UST, HIST CORTESE	Lower	1791, 0.339, SW
B7	MIKULS TRUCK STOP	2201 TAFT HWY	LUST, Cortese, CERS	Lower	1791, 0.339, SW
8	MCKEE ELEMENTARY SCH	NORTH OF TAFT HWY AN	ENVIROSTOR, SCH	Lower	2588, 0.490, ESE
9	PROPOSED MCKEE ROAD	2923 MCKEE ROAD	ENVIROSTOR, SCH	Higher	3282, 0.622, WNW

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal NPL (Superfund) sites

NPL..... National Priority List
Proposed NPL..... Proposed National Priority List Sites
NPL LIENS..... Federal Superfund Liens

Lists of Federal Delisted NPL sites

Delisted NPL..... National Priority List Deletions

Lists of Federal sites subject to CERCLA removals and CERCLA orders

FEDERAL FACILITY..... Federal Facility Site Information listing
SEMS..... Superfund Enterprise Management System

Lists of Federal CERCLA sites with NFRAP

SEMS-ARCHIVE..... Superfund Enterprise Management System Archive

Lists of Federal RCRA facilities undergoing Corrective Action

CORRACTS..... Corrective Action Report

Lists of Federal RCRA TSD facilities

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

Lists of Federal RCRA generators

RCRA-LQG..... RCRA - Large Quantity Generators
RCRA-VSQG..... RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

Federal institutional controls / engineering controls registries

LUCIS..... Land Use Control Information System
US ENG CONTROLS..... Engineering Controls Sites List

EXECUTIVE SUMMARY

US INST CONTROLS..... Institutional Controls Sites List

Federal ERNS list

ERNS..... Emergency Response Notification System

Lists of state- and tribal ?Superfund? equivalent sites

RESPONSE..... State Response Sites

Lists of state and tribal landfills and solid waste disposal facilities

SWF/LF..... Solid Waste Information System

Lists of state and tribal leaking storage tanks

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

CPS-SLIC..... Statewide SLIC Cases

Lists of state and tribal registered storage tanks

FEMA UST..... Underground Storage Tank Listing

UST..... Active UST Facilities

AST..... Aboveground Petroleum Storage Tank Facilities

INDIAN UST..... Underground Storage Tanks on Indian Land

Lists of state and tribal voluntary cleanup sites

INDIAN VCP..... Voluntary Cleanup Priority Listing

VCP..... Voluntary Cleanup Program Properties

Lists of state and tribal brownfield sites

BROWNFIELDS..... Considered Brownfields Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT..... Waste Management Unit Database

SWRCY..... Recycler Database

HAULERS..... Registered Waste Tire Haulers Listing

INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands

DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations

ODI..... Open Dump Inventory

IHS OPEN DUMPS..... Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL..... Delisted National Clandestine Laboratory Register

EXECUTIVE SUMMARY

HIST Cal-Sites.....	Historical Calsites Database
SCH.....	School Property Evaluation Program
CDL.....	Clandestine Drug Labs
Toxic Pits.....	Toxic Pits Cleanup Act Sites
US CDL.....	National Clandestine Laboratory Register
AQUEOUS FOAM.....	Former Fire Training Facility Assessments Listing
PFAS.....	PFAS Contamination Site Location Listing

Local Lists of Registered Storage Tanks

SWEEPS UST.....	SWEEPS UST Listing
HIST UST.....	Hazardous Substance Storage Container Database
CERS TANKS.....	California Environmental Reporting System (CERS) Tanks
CA FID UST.....	Facility Inventory Database

Local Land Records

LIENS.....	Environmental Liens Listing
LIENS 2.....	CERCLA Lien Information
DEED.....	Deed Restriction Listing

Records of Emergency Release Reports

HMIRS.....	Hazardous Materials Information Reporting System
CHMIRS.....	California Hazardous Material Incident Report System
LDS.....	Land Disposal Sites Listing
MCS.....	Military Cleanup Sites Listing
SPILLS 90.....	SPILLS 90 data from FirstSearch

Other Ascertainable Records

FUDS.....	Formerly Used Defense Sites
DOD.....	Department of Defense Sites
SCRD DRYCLEANERS.....	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR.....	Financial Assurance Information
EPA WATCH LIST.....	EPA WATCH LIST
2020 COR ACTION.....	2020 Corrective Action Program List
TSCA.....	Toxic Substances Control Act
TRIS.....	Toxic Chemical Release Inventory System
SSTS.....	Section 7 Tracking Systems
ROD.....	Records Of Decision
RMP.....	Risk Management Plans
RAATS.....	RCRA Administrative Action Tracking System
PRP.....	Potentially Responsible Parties
PADS.....	PCB Activity Database System
ICIS.....	Integrated Compliance Information System
FTTS.....	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS.....	Material Licensing Tracking System
COAL ASH DOE.....	Steam-Electric Plant Operation Data
COAL ASH EPA.....	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER.....	PCB Transformer Registration Database
RADINFO.....	Radiation Information Database
HIST FTTS.....	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS.....	Incident and Accident Data

EXECUTIVE SUMMARY

CONSENT.....	Superfund (CERCLA) Consent Decrees
INDIAN RESERV.....	Indian Reservations
FUSRAP.....	Formerly Utilized Sites Remedial Action Program
UMTRA.....	Uranium Mill Tailings Sites
LEAD SMELTERS.....	Lead Smelter Sites
US AIRS.....	Aerometric Information Retrieval System Facility Subsystem
US MINES.....	Mines Master Index File
ABANDONED MINES.....	Abandoned Mines
FINDS.....	Facility Index System/Facility Registry System
DOCKET HWC.....	Hazardous Waste Compliance Docket Listing
UXO.....	Unexploded Ordnance Sites
ECHO.....	Enforcement & Compliance History Information
FUELS PROGRAM.....	EPA Fuels Program Registered Listing
CA BOND EXP. PLAN.....	Bond Expenditure Plan
DRYCLEANERS.....	Cleaner Facilities
EML.....	Emissions Inventory Data
ENF.....	Enforcement Action Listing
Financial Assurance.....	Financial Assurance Information Listing
HAZNET.....	Facility and Manifest Data
ICE.....	ICE
HWP.....	EnviroStor Permitted Facilities Listing
HWT.....	Registered Hazardous Waste Transporter Database
MINES.....	Mines Site Location Listing
MWMP.....	Medical Waste Management Program Listing
NPDES.....	NPDES Permits Listing
PEST LIC.....	Pesticide Regulation Licenses Listing
PROC.....	Certified Processors Database
Notify 65.....	Proposition 65 Records
UIC.....	UIC Listing
UIC GEO.....	UIC GEO (GEOTRACKER)
WASTEWATER PITS.....	Oil Wastewater Pits Listing
WDS.....	Waste Discharge System
WIP.....	Well Investigation Program Case List
MILITARY PRIV SITES.....	MILITARY PRIV SITES (GEOTRACKER)
PROJECT.....	PROJECT (GEOTRACKER)
WDR.....	Waste Discharge Requirements Listing
CIWQS.....	California Integrated Water Quality System
CERS.....	CERS
NON-CASE INFO.....	NON-CASE INFO (GEOTRACKER)
OTHER OIL GAS.....	OTHER OIL & GAS (GEOTRACKER)
PROD WATER PONDS.....	PROD WATER PONDS (GEOTRACKER)
SAMPLING POINT.....	SAMPLING POINT (GEOTRACKER)
WELL STIM PROJ.....	Well Stimulation Project (GEOTRACKER)
MINES MRDS.....	Mineral Resources Data System
HWTS.....	Hazardous Waste Tracking System

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP.....	EDR Proprietary Manufactured Gas Plants
EDR Hist Auto.....	EDR Exclusive Historical Auto Stations
EDR Hist Cleaner.....	EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF.....	Recovered Government Archive Solid Waste Facilities List
-------------	--

EXECUTIVE SUMMARY

RGA LUST..... Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal RCRA generators

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 09/13/2021 has revealed that there is 1 RCRA-SQG site within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>ROGER MEARS RACING</i> EPA ID:: CAD981683485	<i>8831 SORREL</i>	<i>NNE 1/8 - 1/4 (0.176 mi.)</i>	<i>4</i>	<i>21</i>

Lists of state- and tribal hazardous waste facilities

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 07/22/2021 has revealed that there are 2 ENVIROSTOR sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>PROPOSED MCKEE ROAD</i>	<i>2923 MCKEE ROAD</i>	<i>WNW 1/2 - 1 (0.622 mi.)</i>	<i>9</i>	<i>33</i>

EXECUTIVE SUMMARY

Facility Id: 60000794
 Status: No Further Action

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
MCKEE ELEMENTARY SCH Facility Id: 60000439 Status: No Further Action	NORTH OF TAFT HWY AN	ESE 1/4 - 1/2 (0.490 mi.)	8	30

Lists of state and tribal leaking storage tanks

LUST: Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

A review of the LUST list, as provided by EDR, has revealed that there are 2 LUST sites within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
JOHNNY QUIK #143 Database: LUST, Date of Government Version: 06/03/2021 Status: Completed - Case Closed Global Id: T10000004769	2126 TAFT HWY	SSW 1/4 - 1/2 (0.273 mi.)	5	24
MIKULS TRUCK STOP Database: LUST REG 5, Date of Government Version: 07/01/2008 Database: LUST, Date of Government Version: 06/03/2021 Status: Completed - Case Closed Status: Case Closed Global Id: T0602900758	2201 TAFT HWY	SW 1/4 - 1/2 (0.339 mi.)	B7	28

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

CERS HAZ WASTE: List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

A review of the CERS HAZ WASTE list, as provided by EDR, and dated 07/15/2021 has revealed that there is 1 CERS HAZ WASTE site within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
GIC CORPORATION	2055 MCKEE RD	NW 0 - 1/8 (0.097 mi.)	A2	12

EXECUTIVE SUMMARY

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 09/13/2021 has revealed that there is 1 RCRA NonGen / NLR site within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
GIC CORPORATION DBA EPA ID:: CAL000422510	2055 MCKEE RD	NW 0 - 1/8 (0.097 mi.)	A3	19

Cortese: The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

A review of the Cortese list, as provided by EDR, and dated 06/17/2021 has revealed that there are 2 Cortese sites within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
JOHNNY QUIK #143 Cleanup Status: COMPLETED - CASE CLOSED	2126 TAFT HWY	SSW 1/4 - 1/2 (0.273 mi.)	5	24
MIKULS TRUCK STOP Cleanup Status: COMPLETED - CASE CLOSED	2201 TAFT HWY	SW 1/4 - 1/2 (0.339 mi.)	B7	28

CUPA Listings: A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

A review of the CUPA Listings list, as provided by EDR, has revealed that there is 1 CUPA Listings site within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
GREENFIELD COUNTY WA Database: KERN CO CUPA, Date of Government Version: 07/06/2021	1604 CHARTERTEN AVE	NE 0 - 1/8 (0.063 mi.)	1	9

HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSTITES]. This listing is no longer updated by the state agency.

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 2 HIST CORTESE sites within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
JOHNNY QUIK #143	2126 TAFT HWY	SSW 1/4 - 1/2 (0.273 mi.)	5	24

EXECUTIVE SUMMARY

Reg Id: 5T15000843

MIKULS TRUCK STOP

Reg Id: 5T15000804

2201 TAFT

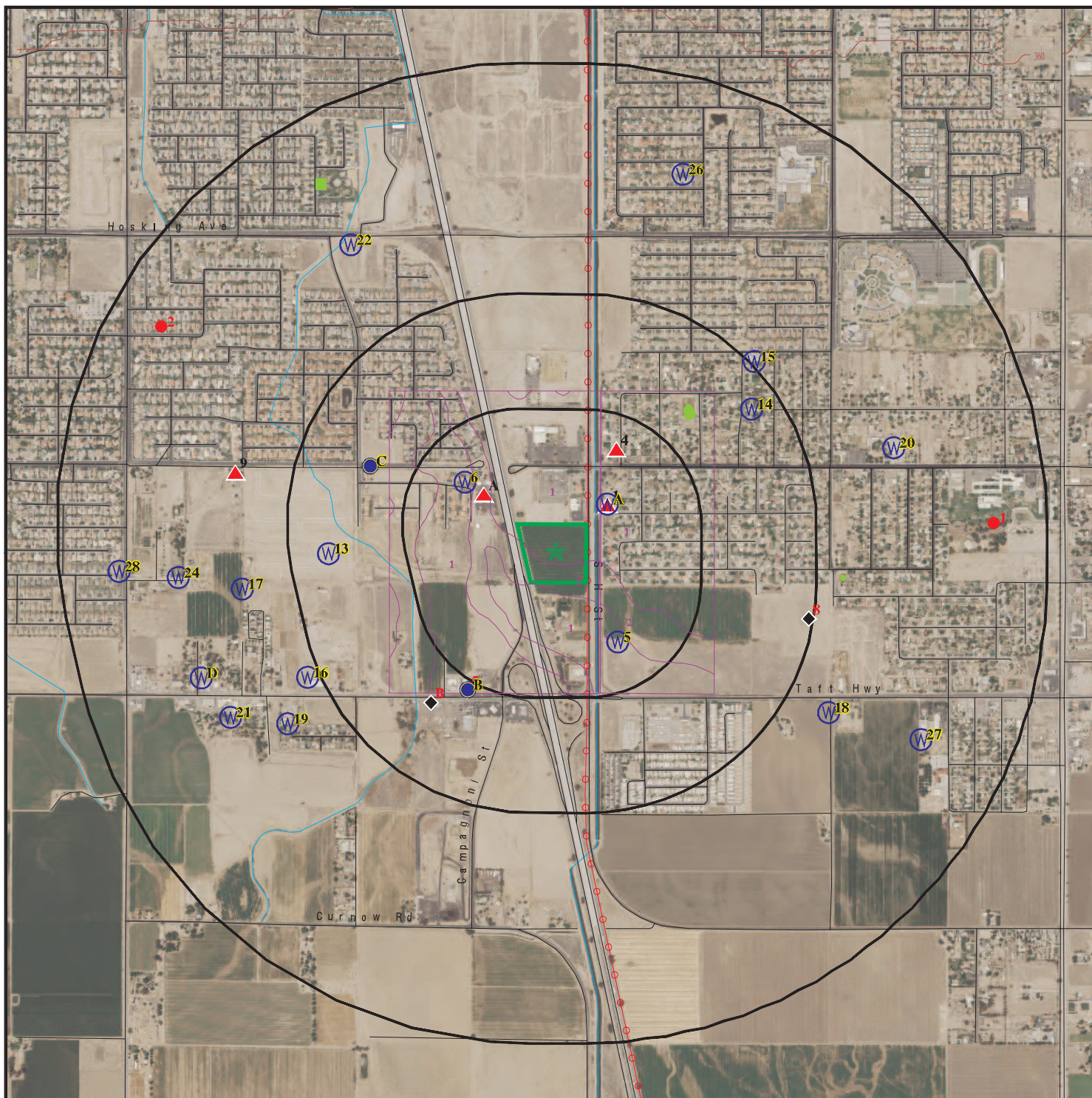
SW 1/4 - 1/2 (0.339 mi.) B6

27

EXECUTIVE SUMMARY

There were no unmapped sites in this report.

OVERVIEW MAP - 6757422.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

Indian Reservations BIA

Power transmission lines

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

National Wetland Inventory

State Wetlands

Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: AREC - Vacant Land
 ADDRESS: 9407 South H Street
 Bakersfield CA 93307
 LAT/LONG: 35.271376 / 119.022516

CLIENT: ATC Group Services LLC
 CONTACT: Robert Petrisko
 INQUIRY #: 6757422.2s
 DATE: November 19, 2021 9:28 am

DETAIL MAP - 6757422.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

Indian Reservations BIA

Power transmission lines

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

National Wetland Inventory

State Wetlands

Areas of Concern



This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: AREC - Vacant Land
 ADDRESS: 9407 South H Street
 Bakersfield CA 93307
 LAT/LONG: 35.271376 / 119.022516

CLIENT: ATC Group Services LLC
 CONTACT: Robert Petrisko
 INQUIRY #: 6757422.2s
 DATE: November 19, 2021 9:34 am

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
<i>Lists of Federal NPL (Superfund) sites</i>								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
<i>Lists of Federal Delisted NPL sites</i>								
Delisted NPL	1.000		0	0	0	0	NR	0
<i>Lists of Federal sites subject to CERCLA removals and CERCLA orders</i>								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
<i>Lists of Federal CERCLA sites with NFRAP</i>								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
<i>Lists of Federal RCRA facilities undergoing Corrective Action</i>								
CORRACTS	1.000		0	0	0	0	NR	0
<i>Lists of Federal RCRA TSD facilities</i>								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
<i>Lists of Federal RCRA generators</i>								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	1	NR	NR	NR	1
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
<i>Federal institutional controls / engineering controls registries</i>								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
<i>Federal ERNS list</i>								
ERNS	TP		NR	NR	NR	NR	NR	0
<i>Lists of state- and tribal ?Superfund? equivalent sites</i>								
RESPONSE	1.000		0	0	0	0	NR	0
<i>Lists of state- and tribal hazardous waste facilities</i>								
ENVIROSTOR	1.000		0	0	1	1	NR	2
<i>Lists of state and tribal landfills and solid waste disposal facilities</i>								
SWF/LF	0.500		0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
<i>Lists of state and tribal leaking storage tanks</i>								
LUST	0.500		0	0	2	NR	NR	2
INDIAN LUST	0.500		0	0	0	NR	NR	0
CPS-SLIC	0.500		0	0	0	NR	NR	0
<i>Lists of state and tribal registered storage tanks</i>								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
<i>Lists of state and tribal voluntary cleanup sites</i>								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	0	NR	NR	0
<i>Lists of state and tribal brownfield sites</i>								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
<u>ADDITIONAL ENVIRONMENTAL RECORDS</u>								
<i>Local Brownfield lists</i>								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
<i>Local Lists of Landfill / Solid Waste Disposal Sites</i>								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	TP		NR	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
<i>Local Lists of Hazardous waste / Contaminated Sites</i>								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	0	NR	NR	NR	0
CDL	TP		NR	NR	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
CERS HAZ WASTE	0.250		1	0	NR	NR	NR	1
US CDL	TP		NR	NR	NR	NR	NR	0
AQUEOUS FOAM	TP		NR	NR	NR	NR	NR	0
PFAS	0.500		0	0	0	NR	NR	0
<i>Local Lists of Registered Storage Tanks</i>								
SWEEPS UST	0.250		0	0	NR	NR	NR	0
HIST UST	0.250		0	0	NR	NR	NR	0
CERS TANKS	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CA FID UST	0.250		0	0	NR	NR	NR	0
Local Land Records								
LIENS	TP		NR	NR	NR	NR	NR	0
LIENS 2	TP		NR	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
CHMIRS	TP		NR	NR	NR	NR	NR	0
LDS	TP		NR	NR	NR	NR	NR	0
MCS	TP		NR	NR	NR	NR	NR	0
SPILLS 90	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		1	0	NR	NR	NR	1
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
ECHO	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

<u>Database</u>	<u>Search Distance (Miles)</u>	<u>Target Property</u>	<u>< 1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>> 1</u>	<u>Total Plotted</u>
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NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

1
NE
< 1/8
0.063 mi.
333 ft.

GREENFIELD COUNTY WATER DISTRICT - MCKEE WELL
1604 CHARTERTEN AVE
BAKERSFIELD, CA 93307

CUPA Listings S121740749
CERS N/A

Relative:
Higher
Actual:
353 ft.

KERN CO CUPA:
Facility ID: FA0038483
CERS ID: 10398721
Name: GREENFIELD COUNTY WATER DISTRICT - MCKEE WELL
Address: 1604 CHARTERTEN AVE
Address 2: Not reported
City,State,Zip: BAKERSFIELD, CA
Billing Status: Active, billable
Program Element: BUS PLAN SMALL LOW RISK 1 UNIT
Program Element Code: CB1T
HMIRRP Due Date: Not reported
Current Inspection Date: 9/1/2022
Employee: McCormick
Mailing Address: 551 Taft Hwy
Mailing Address 2: Not reported
Mailing City: Bakersfield
Mailing State: CA
Mailing Zip: 93307

CERS:
Name: GREENFIELD COUNTY WATER DISTRICT - MCKEE WELL
Address: 1604 CHARTERTEN AVE
City,State,Zip: BAKERSFIELD, CA 93307
Site ID: 120644
CERS ID: 10398721
CERS Description: Chemical Storage Facilities

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-10-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Kern County Env Health Services Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-30-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Kern County Env Health Services Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 11-01-2019
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Kern County Env Health Services Department
Eval Program: HMRRP

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GREENFIELD COUNTY WATER DISTRICT - MCKEE WELL (Continued)

S121740749

Eval Source: CERS

Coordinates:
Site ID: 120644
Facility Name: Greenfield County Water District - McKee Well
Env Int Type Code: HMBP
Program ID: 10398721
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 35.272880
Longitude: -119.020520

Affiliation:
Affiliation Type Desc: Parent Corporation
Entity Name: Greenfield County Water District
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: CUPA District
Entity Name: Kern County Environmental Health Services Departme
Entity Title: Not reported
Affiliation Address: 2700 M Street, Suite 300
Affiliation City: Bakersfield
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 93301-2370
Affiliation Phone: (661) 862-8740

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 551 Taft Hwy
Affiliation City: Bakersfield
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 93307
Affiliation Phone: Not reported

Affiliation Type Desc: Operator
Entity Name: Nick Cooper
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (661) 301-3823

Affiliation Type Desc: Document Preparer
Entity Name: Mel Johnson
Entity Title: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GREENFIELD COUNTY WATER DISTRICT - MCKEE WELL (Continued)

S121740749

Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Environmental Contact
Entity Name: Mel Johnson
Entity Title: Not reported
Affiliation Address: 551 Taft Hwy
Affiliation City: Bakersfield
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 93307
Affiliation Phone: Not reported

Affiliation Type Desc: Identification Signer
Entity Name: Mel Johnson
Entity Title: District Manager
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner
Entity Name: Greenfield County Water District
Entity Title: Not reported
Affiliation Address: 551 Taft Hwy
Affiliation City: Bakersfield
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 93307
Affiliation Phone: (661) 831-0989

Affiliation Type Desc: Property Owner
Entity Name: Greenfield County Water District
Entity Title: Not reported
Affiliation Address: 551 Taft Hwy
Affiliation City: Bakersfield
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 93307
Affiliation Phone: (661) 831-0989

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

A2
NW
< 1/8
0.097 mi.
513 ft.

GIC CORPORATION
2055 MCKEE RD
BAKERSFIELD, CA 93313

CERS HAZ WASTE S121766561
CERS N/A

Site 1 of 2 in cluster A

Relative:
Higher

CERS HAZ WASTE:

Actual:
353 ft.

Name: GIC CORPORATION
Address: 2055 MCKEE RD
City,State,Zip: BAKERSFIELD, CA 93313
Site ID: 360792
CERS ID: 10650142
CERS Description: Hazardous Waste Generator

CERS:

Name: GIC CORPORATION
Address: 2055 MCKEE RD
City,State,Zip: BAKERSFIELD, CA 93313
Site ID: 360792
CERS ID: 10650142
CERS Description: Chemical Storage Facilities

Violations:

Site ID: 360792
Site Name: GIC Corporation
Violation Date: 05-22-2019
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description: Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes: Returned to compliance on 08/20/2019. Multiple open containers partially filled.
Violation Division: Bakersfield City Fire Department
Violation Program: HW
Violation Source: CERS

Site ID: 360792
Site Name: GIC Corporation
Violation Date: 06-02-2017
Citation: 22 CCR 12 66262.40(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.40(a)
Violation Description: Failure to keep a copy of each properly signed manifest for at least three years from the date the waste was accepted by the initial transporter. The manifest signed at the time the waste was accepted for transport shall be kept until receiving a signed copy from the designated facility which received the waste.
Violation Notes: Returned to compliance on 08/20/2019. failure to maintain copies of manifests and waste receipts on site
Violation Division: Bakersfield City Fire Department
Violation Program: HW
Violation Source: CERS

Site ID: 360792
Site Name: GIC Corporation
Violation Date: 05-22-2019
Citation: 40 CFR 1 265.173 - U.S. Code of Federal Regulations, Title 40, Chapter

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GIC CORPORATION (Continued)

S121766561

Violation Description: 1, Section(s) 265.173
Failure to meet the following container management requirements: (a) A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste. (b) A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.

Violation Notes: Returned to compliance on 08/20/2019. multiple open oil containers

Violation Division: Bakersfield City Fire Department

Violation Program: HW

Violation Source: CERS

Site ID: 360792

Site Name: GIC Corporation

Violation Date: 11-05-2015

Citation: 40 CFR 1 265.201(c)(3) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.201(c)(3)

Violation Description: Failure to conduct daily tank inspection of the discharge systems, monitoring equipment, and tank levels.

Violation Notes: Returned to compliance on 06/02/2017. Failure to document waste oil tank inspections daily.

Violation Division: Bakersfield City Fire Department

Violation Program: HW

Violation Source: CERS

Site ID: 360792

Site Name: GIC Corporation

Violation Date: 11-05-2015

Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)

Violation Description: Failure to properly label hazardous waste accumulation containers with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.

Violation Notes: Returned to compliance on 06/02/2017. Failure to label any drums on site.

Violation Division: Bakersfield City Fire Department

Violation Program: HW

Violation Source: CERS

Site ID: 360792

Site Name: GIC Corporation

Violation Date: 11-05-2015

Citation: 19 CCR 4 2729.5 - California Code of Regulations, Title 19, Chapter 4, Section(s) 2729.5

Violation Description: Failure to submit inventory reports (Activities, Owner/Operator, Hazardous Materials Descriptions and Map pages, if required. Documentation must be resubmitted (for facilities which exceed EPCRA thresholds) or re-certified (for facilities which do not exceed EPCRA thresholds) by March 1.

Violation Notes: Returned to compliance on 03/16/2017. Failure to submit a hazardous materials business plan.

Violation Division: Bakersfield City Fire Department

Violation Program: HMRRP

Violation Source: CERS

Site ID: 360792

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GIC CORPORATION (Continued)

S121766561

Site Name: GIC Corporation
Violation Date: 05-22-2019
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.
Violation Notes: Returned to compliance on 05/29/2020. update cers
Violation Division: Bakersfield City Fire Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 360792
Site Name: GIC Corporation
Violation Date: 06-02-2017
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.
Violation Notes: Returned to compliance on 06/17/2019. Update waste amounts in CERS
Violation Division: Bakersfield City Fire Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 360792
Site Name: GIC Corporation
Violation Date: 11-05-2015
Citation: 40 CFR 1 265.174 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.174
Violation Description: Failure to inspect hazardous waste storage areas at least weekly.
Violation Notes: Returned to compliance on 06/02/2017. Failure to document weekly container inspections.
Violation Division: Bakersfield City Fire Department
Violation Program: HW
Violation Source: CERS

Site ID: 360792
Site Name: GIC Corporation
Violation Date: 05-22-2019
Citation: 40 CFR 1 265.177 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.177
Violation Description: Failure to separate incompatible wastes from the same container, nearby containers, or unwashed containers which previously contained incompatible waste or materials.
Violation Notes: Returned to compliance on 08/20/2019. unknown hazardous waste with used oil.
Violation Division: Bakersfield City Fire Department
Violation Program: HW
Violation Source: CERS

Site ID: 360792
Site Name: GIC Corporation
Violation Date: 05-22-2019
Citation: 22 CCR 23 66273.34 - California Code of Regulations, Title 22, Chapter 23, Section(s) 66273.34
Violation Description: Failure to label or mark each individual or container or the

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GIC CORPORATION (Continued)

S121766561

designated area of universal waste as required. 1) Waste batteries shall be marked with "Universal Waste-Battery(ies)G . 2) Mercury containing equipment shall be marked with "Universal Waste -Mercury-Containing EquipmentG . 3) Lamps shall be marked with G Universal Waste-Lamp(s)G . 4)Each electronic devices or the container or the designated area shall be marked with G Universal Waste-Electronic Device(s)G . 5) Each CRTs or the container or the designated area shall be marked with "Universal Waste-CRT(s)G . 6) CRT glass or the designated area shall be marked with G Universal Waste-CRT glassG .

Violation Notes: Returned to compliance on 08/20/2019. Unknown hazardous waste with used oil.
Violation Division: Bakersfield City Fire Department
Violation Program: HW
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-22-2019
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: No BFD Permit. Update CERS; tire and debris scattered throughout facility.
Eval Division: Bakersfield City Fire Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-20-2018
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: auto fluids
Eval Division: Bakersfield City Fire Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 11-05-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: No Business Plan on File. No verification of abatement material
Eval Division: Bakersfield City Fire Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-22-2019
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: unknown waste with used oil.
Eval Division: Bakersfield City Fire Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-06-2018
Violations Found: No

Map ID
Direction
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GIC CORPORATION (Continued)

S121766561

Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Bakersfield City Fire Department
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	06-06-2018
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Bakersfield City Fire Department
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	06-20-2018
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	CERS Out of date; housekeeping needs improvement
Eval Division:	Bakersfield City Fire Department
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	11-05-2015
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	No documentation of tank inspections. No documentation of container inspections. Containers not labeled non approved waste oil tank
Eval Division:	Bakersfield City Fire Department
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-29-2020
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Bakersfield City Fire Department
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-29-2020
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Bakersfield City Fire Department
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	06-02-2017
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Keep copies of manifests and waste receipts on site

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MAP FINDINGS

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Database(s)

EDR ID Number
EPA ID Number

GIC CORPORATION (Continued)

S121766561

Eval Division: Bakersfield City Fire Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-02-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Update waste inventory in CERS
Eval Division: Bakersfield City Fire Department
Eval Program: HMRRP
Eval Source: CERS

Coordinates:
Site ID: 360792
Facility Name: GIC Corporation
Env Int Type Code: HWG
Program ID: 10650142
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 35.273220
Longitude: -119.025280

Affiliation:
Affiliation Type Desc: CUPA District
Entity Name: Bakersfield City Fire Department
Entity Title: Not reported
Affiliation Address: 2101 H Street
Affiliation City: Bakersfield
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 93301
Affiliation Phone: (661) 326-3979

Affiliation Type Desc: Document Preparer
Entity Name: Nestor Cruz
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 2055 Mckee Rd
Affiliation City: Bakersfield
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 93313
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner
Entity Name: Gabriel I. Cruz

Map ID
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MAP FINDINGS

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EDR ID Number
EPA ID Number

GIC CORPORATION (Continued)

S121766561

Entity Title: Not reported
Affiliation Address: 2055
Affiliation City: Bakersfield
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 93313
Affiliation Phone: (661) 397-0605

Affiliation Type Desc: Parent Corporation
Entity Name: GIC Corporation
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Operator
Entity Name: GIC Corp.
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (661) 397-0605

Affiliation Type Desc: Property Owner
Entity Name: Gabriel I. Cruz
Entity Title: Not reported
Affiliation Address: 2055 McKee Rd
Affiliation City: Bakersfield
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 93313
Affiliation Phone: (661) 397-0605

Affiliation Type Desc: Environmental Contact
Entity Name: Nestor CRUZ
Entity Title: Not reported
Affiliation Address: 2055 Mckee Rd
Affiliation City: Bakersfield
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 93313
Affiliation Phone: Not reported

Affiliation Type Desc: Identification Signer
Entity Name: Nestor Cruz
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Map ID
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MAP FINDINGS

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Database(s)

EDR ID Number
 EPA ID Number

A3 NW < 1/8 0.097 mi. 513 ft. Relative: Higher Actual: 353 ft.	GIC CORPORATION DBA GIC TRANSPORT 2055 MCKEE RD BAKERSFIELD, CA 93313 Site 2 of 2 in cluster A RCRA NonGen / NLR:	RCRA NonGen / NLR	1024857293 CAL000422510
	Date Form Received by Agency:	20161121	
	Handler Name:	GIC CORPORATION DBA GIC TRANSPORT	
	Handler Address:	2055 MCKEE RD	
	Handler City,State,Zip:	BAKERSFIELD, CA 93313	
	EPA ID:	CAL000422510	
	Contact Name:	NESTOR CRUZ	
	Contact Address:	305 MYRTLE ST	
	Contact City,State,Zip:	BAKERSFIELD, CA 93304	
	Contact Telephone:	661-800-8399	
	Contact Fax:	Not reported	
	Contact Email:	NCRUZGICTRANSPORT@YAHOO.COM	
	Contact Title:	Not reported	
	EPA Region:	09	
	Land Type:	Not reported	
	Federal Waste Generator Description:	Not a generator, verified	
	Non-Notifier:	Not reported	
	Biennial Report Cycle:	Not reported	
	Accessibility:	Not reported	
	Active Site Indicator:	Handler Activities	
	State District Owner:	Not reported	
	State District:	Not reported	
	Mailing Address:	2055 MCKEE RD	
	Mailing City,State,Zip:	BAKERSFIELD, CA 93313	
	Owner Name:	GIC CORPORATION	
	Owner Type:	Other	
	Operator Name:	NESTOR CRUZ	
	Operator Type:	Other	
	Short-Term Generator Activity:	No	
	Importer Activity:	No	
	Mixed Waste Generator:	No	
	Transporter Activity:	No	
	Transfer Facility Activity:	No	
	Recycler Activity with Storage:	No	
	Small Quantity On-Site Burner Exemption:	No	
	Smelting Melting and Refining Furnace Exemption:	No	
	Underground Injection Control:	No	
	Off-Site Waste Receipt:	No	
	Universal Waste Indicator:	Yes	
	Universal Waste Destination Facility:	Yes	
	Federal Universal Waste:	No	
	Active Site Fed-Reg Treatment Storage and Disposal Facility:	Not reported	
	Active Site Converter Treatment storage and Disposal Facility:	Not reported	
	Active Site State-Reg Treatment Storage and Disposal Facility:	Not reported	
	Active Site State-Reg Handler:	---	
	Federal Facility Indicator:	Not reported	
	Hazardous Secondary Material Indicator:	N	
	Sub-Part K Indicator:	Not reported	
	Commercial TSD Indicator:	No	
	Treatment Storage and Disposal Type:	Not reported	
	2018 GPRA Permit Baseline:	Not on the Baseline	
	2018 GPRA Renewals Baseline:	Not on the Baseline	
	Permit Renewals Workload Universe:	Not reported	

Map ID
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MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

GIC CORPORATION DBA GIC TRANSPORT (Continued)

1024857293

Permit Workload Universe:	Not reported
Permit Progress Universe:	Not reported
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs Only Subject to CA under Discretionary Auth Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Operating TSDF Universe:	Not reported
Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	20180907
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

Handler - Owner Operator:

Owner/Operator Indicator:	Owner
Owner/Operator Name:	GIC CORPORATION
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	2055 MCKEE RD
Owner/Operator City,State,Zip:	BAKERSFIELD, CA 93313
Owner/Operator Telephone:	661-397-0605
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name:	NESTOR CRUZ
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	305 MYRTLE ST
Owner/Operator City,State,Zip:	BAKERSFIELD, CA 93304
Owner/Operator Telephone:	661-800-8399
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Map ID
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GIC CORPORATION DBA GIC TRANSPORT (Continued)

1024857293

Historic Generators:

Receive Date: 20161121
Handler Name: GIC CORPORATION DBA GIC TRANSPORT
Federal Waste Generator Description: Not a generator, verified
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: Yes
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:

NAICS Code: 811111
NAICS Description: GENERAL AUTOMOTIVE REPAIR

Facility Has Received Notices of Violations:

Violations: No Violations Found

Evaluation Action Summary:

Evaluations: No Evaluations Found

4
NNE
1/8-1/4
0.176 mi.
929 ft.

ROGER MEARS RACING
8831 SORREL
BAKERSFIELD, CA 93307

RCRA-SQG **1000210946**
FINDS **CAD981683485**
ECHO

Relative:
Higher
Actual:
354 ft.

RCRA-SQG:
Date Form Received by Agency: 19861010
Handler Name: ROGER MEARS RACING
Handler Address: 8831 SORREL
Handler City,State,Zip: BAKERSFIELD, CA 93307
EPA ID: CAD981683485
Contact Name: ENVIRONMENTAL MANAGER
Contact Address: 8831 SORREL
Contact City,State,Zip: BAKERSFIELD, CA 93307
Contact Telephone: 805-831-8610
Contact Fax: Not reported
Contact Email: Not reported
Contact Title: Not reported
EPA Region: 09
Land Type: Not reported
Federal Waste Generator Description: Small Quantity Generator
Non-Notifier: Not reported
Biennial Report Cycle: Not reported
Accessibility: Not reported
Active Site Indicator: Handler Activities
State District Owner: CA
State District: 5
Mailing Address: SORREL
Mailing City,State,Zip: BAKERSFIELD, CA 93307
Owner Name: ROGER MEARS

Map ID
 Direction
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MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

ROGER MEARS RACING (Continued)

1000210946

Owner Type:	Private
Operator Name:	NOT REQUIRED
Operator Type:	Private
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site Fed-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site Converter Treatment storage and Disposal Facility:	Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	NN
Sub-Part K Indicator:	Not reported
Commercial TSD Indicator:	No
Treatment Storage and Disposal Type:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
Permit Renewals Workload Universe:	Not reported
Permit Workload Universe:	Not reported
Permit Progress Universe:	Not reported
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDs Where RCRA CA has Been Imposed Universe:	No
TSDs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDs Only Subject to CA under Discretionary Auth Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Operating TSD Universe:	Not reported
Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	20000915
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	Not reported
Manifest Broker:	Not reported

Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ROGER MEARS RACING (Continued)

1000210946

Sub-Part P Indicator: No

Handler - Owner Operator:
Owner/Operator Indicator: Operator
Owner/Operator Name: NOT REQUIRED
Legal Status: Private
Date Became Current: Not reported
Date Ended Current: Not reported
Owner/Operator Address: NOT REQUIRED
Owner/Operator City,State,Zip: NOT REQUIRED, ME 99999
Owner/Operator Telephone: 415-555-1212
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner
Owner/Operator Name: ROGER MEARS
Legal Status: Private
Date Became Current: Not reported
Date Ended Current: Not reported
Owner/Operator Address: NOT REQUIRED
Owner/Operator City,State,Zip: NOT REQUIRED, ME 99999
Owner/Operator Telephone: 415-555-1212
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Historic Generators:
Receive Date: 19861010
Handler Name: ROGER MEARS RACING
Federal Waste Generator Description: Small Quantity Generator
State District Owner: CA
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: Yes
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:
NAICS Codes: No NAICS Codes Found

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

FINDS:
Registry ID: 110002751095

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ROGER MEARS RACING (Continued)

1000210946

Click Here:

Environmental Interest/Information System:

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1000210946
Registry ID: 110002751095
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110002751095>
Name: ROGER MEARS RACING
Address: 8831 SORREL
City,State,Zip: BAKERSFIELD, CA 93307

5
SSW
1/4-1/2
0.273 mi.
1443 ft.

JOHNNY QUIK #143
2126 TAFT HWY
BAKERSFIELD, CA 93313

LUST **U003433741**
Cortese **N/A**
HIST CORTESE

Relative:
Lower
Actual:
350 ft.

LUST:

Name: JOHNNY QUIK #143
Address: 2126 TAFT HWY
City,State,Zip: BAKERSFIELD, CA 93313
Lead Agency: CENTRAL VALLEY RWQCB (REGION 5F)
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000004769
Global Id: T10000004769
Latitude: 35.267484
Longitude: -119.025269
Status: Completed - Case Closed
Status Date: 03/05/2014
Case Worker: JDW
RB Case Number: 5T15000929
Local Agency: KERN COUNTY
File Location: Regional Board
Local Case Number: Not reported
Potential Media Affect: Soil, Under Investigation
Potential Contaminants of Concern: Diesel, Gasoline
Site History: Not reported

LUST:

Global Id: T10000004769
Contact Type: Regional Board Caseworker
Contact Name: JOHN WHITING
Organization Name: CENTRAL VALLEY RWQCB (REGION 5F)
Address: 1685 E STREET
City: FRESNO
Email: john.whiting@waterboards.ca.gov
Phone Number: Not reported

Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JOHNNY QUIK #143 (Continued)

U003433741

Global Id: T10000004769
Contact Type: Local Agency Caseworker
Contact Name: KERN COUNTY
Organization Name: KERN COUNTY
Address: Not reported
City: r6v UNKNOWN
Email: Not reported
Phone Number: Not reported

LUST:

Global Id: T10000004769
Action Type: RESPONSE
Date: 12/17/2013
Action: Other Report / Document

Global Id: T10000004769
Action Type: RESPONSE
Date: 12/17/2013
Action: Other Report / Document

Global Id: T10000004769
Action Type: RESPONSE
Date: 09/03/2013
Action: Preliminary Site Assessment Workplan - Regulator Responded

Global Id: T10000004769
Action Type: RESPONSE
Date: 12/17/2013
Action: Request for Closure - Regulator Responded

Global Id: T10000004769
Action Type: Other
Date: 05/28/2013
Action: Leak Reported

Global Id: T10000004769
Action Type: RESPONSE
Date: 02/05/2014
Action: Other Report / Document

Global Id: T10000004769
Action Type: REMEDIATION
Date: 12/24/2013
Action: Monitored Natural Attenuation

Global Id: T10000004769
Action Type: Other
Date: 05/09/2013
Action: Leak Discovery

Global Id: T10000004769
Action Type: RESPONSE
Date: 10/17/2013
Action: Site Assessment Report

Global Id: T10000004769
Action Type: RESPONSE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JOHNNY QUIK #143 (Continued)

U003433741

Date: 05/22/2013
Action: Other Report / Document

Global Id: T10000004769
Action Type: ENFORCEMENT
Date: 07/02/2013
Action: Staff Letter

Global Id: T10000004769
Action Type: Other
Date: 05/09/2013
Action: Leak Began

Global Id: T10000004769
Action Type: ENFORCEMENT
Date: 03/05/2014
Action: Closure/No Further Action Letter

Global Id: T10000004769
Action Type: ENFORCEMENT
Date: 12/31/2013
Action: Notification - Preclosure

Global Id: T10000004769
Action Type: ENFORCEMENT
Date: 12/05/2013
Action: Staff Letter

Global Id: T10000004769
Action Type: ENFORCEMENT
Date: 07/17/2013
Action: Staff Letter

LUST:

Global Id: T10000004769
Status: Open - Case Begin Date
Status Date: 05/09/2013

Global Id: T10000004769
Status: Open - Assessment & Interim Remedial Action
Status Date: 05/29/2013

Global Id: T10000004769
Status: Open - Remediation
Status Date: 12/24/2013

Global Id: T10000004769
Status: Completed - Case Closed
Status Date: 03/05/2014

CORTESE:

Name: JOHNNY QUIK #143
Address: 2126 TAFT HWY
City,State,Zip: BAKERSFIELD, CA 93313
Region: CORTESE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JOHNNY QUIK #143 (Continued)

U003433741

Envirostor Id: Not reported
Global ID: T10000004769
Site/Facility Type: LUST CLEANUP SITE
Cleanup Status: COMPLETED - CASE CLOSED
Status Date: Not reported
Site Code: Not reported
Latitude: Not reported
Longitude: Not reported
Owner: Not reported
Enf Type: Not reported
Swat R: Not reported
Flag: active
Order No: Not reported
Waste Discharge System No: Not reported
Effective Date: Not reported
Region 2: Not reported
WID Id: Not reported
Solid Waste Id No: Not reported
Waste Management Uit Name: Not reported
File Name: Active Open

HIST CORTESE:
edr_fname: JOHNNY QUICK #143
edr_fadd1: 2126 TAFT
City,State,Zip: BAKERSFIELD, CA 93710
Region: CORTESE
Facility County Code: 15
Reg By: LTNKA
Reg Id: 5T15000843

B6
SW
1/4-1/2
0.339 mi.
1791 ft.

MIKULS TRUCK STOP
2201 TAFT
PUMPKIN CENTER, CA 93309
Site 1 of 2 in cluster B

CA FID UST **S101620606**
HIST CORTESE **N/A**

Relative:
Lower
Actual:
351 ft.

CA FID UST:
Facility ID: 15004717
Regulated By: UTNKA
Regulated ID: 00016237
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 8058325390
Mail To: Not reported
Mailing Address: P O BOX
Mailing Address 2: Not reported
Mailing City,St,Zip: PUMPKIN CENTER 93309
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

HIST CORTESE:
edr_fname: MIKULS TRUCK STOP

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MIKULS TRUCK STOP (Continued)

S101620606

edr_fadd1: 2201 TAFT
City,State,Zip: PUMPKIN CENTER, CA 93309
Region: CORTESE
Facility County Code: 15
Reg By: LTNKA
Reg Id: 5T15000804

**B7
SW
1/4-1/2
0.339 mi.
1791 ft.**

**MIKULS TRUCK STOP
2201 TAFT HWY
BAKERSFIELD, CA 93313**

**LUST S103891879
Cortese N/A
CERS**

Site 2 of 2 in cluster B

**Relative:
Lower
Actual:
351 ft.**

LUST:
Name: MIKULS TRUCK STOP
Address: 2201 TAFT HWY
City,State,Zip: BAKERSFIELD, CA 93313
Lead Agency: KERN COUNTY
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0602900758
Global Id: T0602900758
Latitude: 35.2668225
Longitude: -119.0267272
Status: Completed - Case Closed
Status Date: 08/13/2002
Case Worker: LAU
RB Case Number: 5T15000804
Local Agency: KERN COUNTY
File Location: Not reported
Local Case Number: 320010
Potential Media Affect: Soil
Potential Contaminants of Concern: Diesel
Site History: Not reported

LUST:
Global Id: T0602900758
Contact Type: Regional Board Caseworker
Contact Name: JOHN WHITING
Organization Name: CENTRAL VALLEY RWQCB (REGION 5F)
Address: 1685 E STREET
City: FRESNO
Email: john.whiting@waterboards.ca.gov
Phone Number: Not reported

Global Id: T0602900758
Contact Type: Local Agency Caseworker
Contact Name: LAUREL FUNK
Organization Name: KERN COUNTY
Address: 2700 M STREET, SUITE 300
City: BAKERSFIELD
Email: laurelf@co.kern.ca.us
Phone Number: 6618628763

LUST:
Global Id: T0602900758
Action Type: Other
Date: 06/30/1998
Action: Leak Discovery

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MIKULS TRUCK STOP (Continued)

S103891879

Global Id: T0602900758
Action Type: Other
Date: 04/20/1998
Action: Leak Stopped

Global Id: T0602900758
Action Type: Other
Date: 01/05/1999
Action: Leak Reported

LUST:

Global Id: T0602900758
Status: Open - Case Begin Date
Status Date: 04/20/1998

Global Id: T0602900758
Status: Open - Site Assessment
Status Date: 01/05/1999

Global Id: T0602900758
Status: Completed - Case Closed
Status Date: 08/13/2002

LUST REG 5:

Name: MIKULS TRUCK STOP
Address: 2201 TAFT HWY
City: BAKERSFIELD
Region: 5
Status: Case Closed
Case Number: 5T15000804
Case Type: Soil only
Substance: DIESEL
Staff Initials: JDW
Lead Agency: Local
Program: LUST
MTBE Code: N/A

CORTESE:

Name: MIKULS TRUCK STOP
Address: 2201 TAFT HWY
City,State,Zip: BAKERSFIELD, CA 93313
Region: CORTESE
Envirostor Id: Not reported
Global ID: T0602900758
Site/Facility Type: LUST CLEANUP SITE
Cleanup Status: COMPLETED - CASE CLOSED
Status Date: Not reported
Site Code: Not reported
Latitude: Not reported
Longitude: Not reported
Owner: Not reported
Enf Type: Not reported
Swat R: Not reported
Flag: active
Order No: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MIKULS TRUCK STOP (Continued)

S103891879

Waste Discharge System No: Not reported
Effective Date: Not reported
Region 2: Not reported
WID Id: Not reported
Solid Waste Id No: Not reported
Waste Management Uit Name: Not reported
File Name: Active Open

CERS:

Name: MIKULS TRUCK STOP
Address: 2201 TAFT HWY
City,State,Zip: BAKERSFIELD, CA 93313
Site ID: 247299
CERS ID: T0602900758
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: JOHN WHITING - CENTRAL VALLEY RWQCB (REGION 5F)
Entity Title: Not reported
Affiliation Address: 1685 E STREET
Affiliation City: FRESNO
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Local Agency Caseworker
Entity Name: LAUREL FUNK - KERN COUNTY
Entity Title: Not reported
Affiliation Address: 2700 M STREET, SUITE 300
Affiliation City: BAKERSFIELD
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: 6618628763

8
ESE
1/4-1/2
0.490 mi.
2588 ft.

MCKEE ELEMENTARY SCHOOL SITE
NORTH OF TAFT HWY AND WEST OF SHANNON DRIVE
BAKERSFIELD, CA 93307

ENVIROSTOR S108195932
SCH N/A

Relative:
Lower
Actual:
350 ft.

ENVIROSTOR:
Name: MCKEE ELEMENTARY SCHOOL SITE
Address: NORTH OF TAFT HWY AND WEST OF SHANNON DRIVE
City,State,Zip: BAKERSFIELD, CA 93307
Facility ID: 60000439
Status: No Further Action
Status Date: 08/21/2007
Site Code: 104565
Site Type: School Investigation
Site Type Detailed: School
Acres: 15.01
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MCKEE ELEMENTARY SCHOOL SITE (Continued)

S108195932

Program Manager: Not reported
Supervisor: Mark Malinowski
Division Branch: Northern California Schools & Santa Susana
Assembly: 34
Senate: 16
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: School District
Latitude: 35.26931
Longitude: -119.0128
APN: NONE SPECIFIED
Past Use: AGRICULTURAL - ROW CROPS
Potential COC: Arsenic Chlordane DDD DDE DDT TPH-gas TPH-MOTOR OIL
Confirmed COC: 30001-NO 30004-NO 30006-NO 30007-NO 30008-NO No Contaminants found
30025-NO 3002502-NO
Potential Description: NMA
Alias Name: McKee Elementary School Site
Alias Type: Alternate Name
Alias Name: 104565
Alias Type: Project Code (Site Code)
Alias Name: 60000439
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 08/21/2007
Comments: DTSC approved the PEA report with a no further action determination.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 11/06/2006
Comments: Site visit and mtg w/ District and consultant for PEA scoping.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 10/10/2006
Comments: sent fully executed agreement to district

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 11/05/2007
Comments: A Cost Recovery Memorandum was sent to Accounting and the project is considered complete.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MCKEE ELEMENTARY SCHOOL SITE (Continued)

S108195932

Schedule Revised Date: Not reported

SCH:

Name: MCKEE ELEMENTARY SCHOOL SITE
Address: NORTH OF TAFT HWY AND WEST OF SHANNON DRIVE
City,State,Zip: BAKERSFIELD, CA 93307
Facility ID: 60000439
Site Type: School Investigation
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 15.01
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Not reported
Supervisor: Mark Malinowski
Division Branch: Northern California Schools & Santa Susana
Site Code: 104565
Assembly: 34
Senate: 16
Special Program Status: Not reported
Status: No Further Action
Status Date: 08/21/2007
Restricted Use: NO
Funding: School District
Latitude: 35.26931
Longitude: -119.0128
APN: NONE SPECIFIED
Past Use: AGRICULTURAL - ROW CROPS
Potential COC: Arsenic, Arsenic, Chlordane, DDD, DDE, DDT, TPH-gas, TPH-MOTOR OIL
Confirmed COC: 30001-NO, 30004-NO, 30006-NO, 30007-NO, 30008-NO, No Contaminants found, 30025-NO, 3002502-NO
Potential Description: NMA
Alias Name: McKee Elementary School Site
Alias Type: Alternate Name
Alias Name: 104565
Alias Type: Project Code (Site Code)
Alias Name: 60000439
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 08/21/2007
Comments: DTSC approved the PEA report with a no further action determination.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 11/06/2006
Comments: Site visit and mtg w/ District and consultant for PEA scoping.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

MCKEE ELEMENTARY SCHOOL SITE (Continued)

S108195932

Completed Document Type: Environmental Oversight Agreement
 Completed Date: 10/10/2006
 Comments: sent fully executed agreement to district

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not reported
 Completed Document Type: Cost Recovery Closeout Memo
 Completed Date: 11/05/2007
 Comments: A Cost Recovery Memorandum was sent to Accounting and the project is considered complete.

Future Area Name: Not reported
 Future Sub Area Name: Not reported
 Future Document Type: Not reported
 Future Due Date: Not reported
 Schedule Area Name: Not reported
 Schedule Sub Area Name: Not reported
 Schedule Document Type: Not reported
 Schedule Due Date: Not reported
 Schedule Revised Date: Not reported

9
WNW
1/2-1
0.622 mi.
3282 ft.

PROPOSED MCKEE ROAD SCHOOL
2923 MCKEE ROAD
BAKERSFIELD, CA 93313

ENVIROSTOR **S109430025**
SCH **N/A**

Relative:
Higher
Actual:
357 ft.

ENVIROSTOR:
 Name: PROPOSED MCKEE ROAD SCHOOL
 Address: 2923 MCKEE ROAD
 City,State,Zip: BAKERSFIELD, CA 93313
 Facility ID: 60000794
 Status: No Further Action
 Status Date: 08/19/2010
 Site Code: 104614
 Site Type: School Cleanup
 Site Type Detailed: School
 Acres: 14.56
 NPL: NO
 Regulatory Agencies: SMBRP
 Lead Agency: SMBRP
 Program Manager: Aslam Shareef
 Supervisor: Shahir Haddad
 Division Branch: Northern California Schools & Santa Susana
 Assembly: 34
 Senate: 16
 Special Program: Not reported
 Restricted Use: NO
 Site Mgmt Req: NONE SPECIFIED
 Funding: School District
 Latitude: 35.27413
 Longitude: -119.0318
 APN: 51404004
 Past Use: AGRICULTURAL - ORCHARD, AGRICULTURAL - ROW CROPS, RESIDENTIAL AREA
 Potential COC: Arsenic Chlordane DDD DDE DDT
 Confirmed COC: Arsenic Chlordane DDD DDE DDT
 Potential Description: SOIL
 Alias Name: 51404004

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PROPOSED MCKEE ROAD SCHOOL (Continued)

S109430025

Alias Type: APN
Alias Name: 104614
Alias Type: Project Code (Site Code)
Alias Name: 60000794
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 10/05/2010
Comments: CRU Memo completed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/07/2008
Comments: Signed agreement sent (FedEx) to District

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 02/08/2008
Comments: Phase I reviewed by DTSC and Scoping Meeting was held between the district, DTSC and consultant on March 25, 2008. The district would be submitting the PEA WorkPlan in about 3 weeks

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 11/26/2008
Comments: PEA Workplan approval sent to the district

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 07/07/2009
Comments: DTSC approved the PEA with a Further Action determination.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 02/24/2010
Comments: DTSC approved the Removal Action Workplan for implementation

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 01/07/2010
Comments: Finalized for public comments

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Community Profile
Completed Date: 01/07/2010
Comments: Finalized Community Profile

Completed Area Name: PROJECT WIDE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PROPOSED MCKEE ROAD SCHOOL (Continued)

S109430025

Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 01/07/2010
Comments: Finalized Fact Sheet

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: School Cleanup Agreement
Completed Date: 07/29/2009
Comments: Signed agreement sent (FedEx) to District.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Notice of Exemption
Completed Date: 02/25/2010
Comments: Final NOE packet sent to Sacramento

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Completion Report
Completed Date: 08/19/2010
Comments: DTSC approved the Removal Action Completion Report with a No Further Action determination

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

SCH:

Name: PROPOSED MCKEE ROAD SCHOOL
Address: 2923 MCKEE ROAD
City,State,Zip: BAKERSFIELD, CA 93313
Facility ID: 60000794
Site Type: School Cleanup
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 14.56
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Aslam Shareef
Supervisor: Shahir Haddad
Division Branch: Northern California Schools & Santa Susana
Site Code: 104614
Assembly: 34
Senate: 16
Special Program Status: Not reported
Status: No Further Action
Status Date: 08/19/2010

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PROPOSED MCKEE ROAD SCHOOL (Continued)

S109430025

Restricted Use: NO
Funding: School District
Latitude: 35.27413
Longitude: -119.0318
APN: 51404004
Past Use: AGRICULTURAL - ORCHARD, AGRICULTURAL - ROW CROPS, RESIDENTIAL AREA
Potential COC: Arsenic, Chlordane, DDD, DDE, DDT
Confirmed COC: Arsenic, Chlordane, DDD, DDE, DDT
Potential Description: SOIL
Alias Name: 51404004
Alias Type: APN
Alias Name: 104614
Alias Type: Project Code (Site Code)
Alias Name: 60000794
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 10/05/2010
Comments: CRU Memo completed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/07/2008
Comments: Signed agreement sent (FedEx) to District

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 02/08/2008
Comments: Phase I reviewed by DTSC and Scoping Meeting was held between the district, DTSC and consultant on March 25, 2008. The district would be submitting the PEA WorkPlan in about 3 weeks

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 11/26/2008
Comments: PEA Workplan approval sent to the district

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 07/07/2009
Comments: DTSC approved the PEA with a Further Action determination.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 02/24/2010
Comments: DTSC approved the Removal Action Workplan for implementation

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PROPOSED MCKEE ROAD SCHOOL (Continued)

S109430025

Completed Date: 01/07/2010
Comments: Finalized for public comments

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Community Profile
Completed Date: 01/07/2010
Comments: Finalized Community Profile

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 01/07/2010
Comments: Finalized Fact Sheet

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: School Cleanup Agreement
Completed Date: 07/29/2009
Comments: Signed agreement sent (FedEx) to District.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Notice of Exemption
Completed Date: 02/25/2010
Comments: Final NOE packet sent to Sacramento

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Completion Report
Completed Date: 08/19/2010
Comments: DTSC approved the Removal Action Completion Report with a No Further Action determination

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

Count: 0 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
NO SITES FOUND					

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal NPL (Superfund) sites

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 07/29/2021	Source: EPA
Date Data Arrived at EDR: 08/04/2021	Telephone: N/A
Date Made Active in Reports: 08/31/2021	Last EDR Contact: 11/05/2021
Number of Days to Update: 27	Next Scheduled EDR Contact: 01/10/2022
	Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 07/29/2021	Source: EPA
Date Data Arrived at EDR: 08/04/2021	Telephone: N/A
Date Made Active in Reports: 08/31/2021	Last EDR Contact: 11/05/2021
Number of Days to Update: 27	Next Scheduled EDR Contact: 01/10/2022
	Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Lists of Federal Delisted NPL sites

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 07/29/2021
Date Data Arrived at EDR: 08/04/2021
Date Made Active in Reports: 08/31/2021
Number of Days to Update: 27

Source: EPA
Telephone: N/A
Last EDR Contact: 11/05/2021
Next Scheduled EDR Contact: 01/10/2022
Data Release Frequency: Quarterly

Lists of Federal sites subject to CERCLA removals and CERCLA orders

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 05/25/2021
Date Data Arrived at EDR: 06/24/2021
Date Made Active in Reports: 09/20/2021
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 10/01/2021
Next Scheduled EDR Contact: 01/10/2022
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly known as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 07/29/2021
Date Data Arrived at EDR: 08/04/2021
Date Made Active in Reports: 08/31/2021
Number of Days to Update: 27

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 11/05/2021
Next Scheduled EDR Contact: 01/24/2022
Data Release Frequency: Quarterly

Lists of Federal CERCLA sites with NFRAP

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 07/29/2021	Source: EPA
Date Data Arrived at EDR: 08/04/2021	Telephone: 800-424-9346
Date Made Active in Reports: 08/31/2021	Last EDR Contact: 11/05/2021
Number of Days to Update: 27	Next Scheduled EDR Contact: 01/24/2022
	Data Release Frequency: Quarterly

Lists of Federal RCRA facilities undergoing Corrective Action

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 09/13/2021	Source: EPA
Date Data Arrived at EDR: 09/15/2021	Telephone: 800-424-9346
Date Made Active in Reports: 10/12/2021	Last EDR Contact: 09/15/2021
Number of Days to Update: 27	Next Scheduled EDR Contact: 01/03/2022
	Data Release Frequency: Quarterly

Lists of Federal RCRA TSD facilities

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 09/13/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/15/2021	Telephone: (415) 495-8895
Date Made Active in Reports: 10/12/2021	Last EDR Contact: 09/15/2021
Number of Days to Update: 27	Next Scheduled EDR Contact: 01/03/2022
	Data Release Frequency: Quarterly

Lists of Federal RCRA generators

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 09/13/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/15/2021	Telephone: (415) 495-8895
Date Made Active in Reports: 10/12/2021	Last EDR Contact: 09/15/2021
Number of Days to Update: 27	Next Scheduled EDR Contact: 01/03/2022
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 09/13/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/15/2021	Telephone: (415) 495-8895
Date Made Active in Reports: 10/12/2021	Last EDR Contact: 09/15/2021
Number of Days to Update: 27	Next Scheduled EDR Contact: 01/03/2022
	Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 09/13/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/15/2021	Telephone: (415) 495-8895
Date Made Active in Reports: 10/12/2021	Last EDR Contact: 09/15/2021
Number of Days to Update: 27	Next Scheduled EDR Contact: 01/03/2022
	Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 07/12/2021	Source: Department of the Navy
Date Data Arrived at EDR: 08/06/2021	Telephone: 843-820-7326
Date Made Active in Reports: 10/22/2021	Last EDR Contact: 11/08/2021
Number of Days to Update: 77	Next Scheduled EDR Contact: 02/21/2022
	Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 08/23/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/23/2021	Telephone: 703-603-0695
Date Made Active in Reports: 11/12/2021	Last EDR Contact: 08/23/2021
Number of Days to Update: 81	Next Scheduled EDR Contact: 12/06/2021
	Data Release Frequency: Varies

US INST CONTROLS: Institutional Controls Sites List

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 08/23/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/23/2021	Telephone: 703-603-0695
Date Made Active in Reports: 11/12/2021	Last EDR Contact: 08/23/2021
Number of Days to Update: 81	Next Scheduled EDR Contact: 12/06/2021
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 06/14/2021

Source: National Response Center, United States Coast Guard

Date Data Arrived at EDR: 06/17/2021

Telephone: 202-267-2180

Date Made Active in Reports: 08/17/2021

Last EDR Contact: 09/21/2021

Number of Days to Update: 61

Next Scheduled EDR Contact: 01/03/2022

Data Release Frequency: Quarterly

Lists of state- and tribal ?Superfund? equivalent sites

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 07/22/2021

Source: Department of Toxic Substances Control

Date Data Arrived at EDR: 07/22/2021

Telephone: 916-323-3400

Date Made Active in Reports: 10/08/2021

Last EDR Contact: 10/26/2021

Number of Days to Update: 78

Next Scheduled EDR Contact: 02/07/2022

Data Release Frequency: Quarterly

Lists of state- and tribal hazardous waste facilities

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 07/22/2021

Source: Department of Toxic Substances Control

Date Data Arrived at EDR: 07/22/2021

Telephone: 916-323-3400

Date Made Active in Reports: 10/08/2021

Last EDR Contact: 10/26/2021

Number of Days to Update: 78

Next Scheduled EDR Contact: 02/07/2022

Data Release Frequency: Quarterly

Lists of state and tribal landfills and solid waste disposal facilities

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inventory of solid waste disposal facilities or landfills. These may be active or inactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 08/09/2021

Source: Department of Resources Recycling and Recovery

Date Data Arrived at EDR: 08/10/2021

Telephone: 916-341-6320

Date Made Active in Reports: 11/05/2021

Last EDR Contact: 11/09/2021

Number of Days to Update: 87

Next Scheduled EDR Contact: 02/21/2022

Data Release Frequency: Quarterly

Lists of state and tribal leaking storage tanks

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004	Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Date Data Arrived at EDR: 02/26/2004	Telephone: 760-776-8943
Date Made Active in Reports: 03/24/2004	Last EDR Contact: 08/01/2011
Number of Days to Update: 27	Next Scheduled EDR Contact: 11/14/2011
	Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008	Source: California Regional Water Quality Control Board Central Valley Region (5)
Date Data Arrived at EDR: 07/22/2008	Telephone: 916-464-4834
Date Made Active in Reports: 07/31/2008	Last EDR Contact: 07/01/2011
Number of Days to Update: 9	Next Scheduled EDR Contact: 10/17/2011
	Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing

For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003	Source: California Regional Water Quality Control Board Lahontan Region (6)
Date Data Arrived at EDR: 09/10/2003	Telephone: 530-542-5572
Date Made Active in Reports: 10/07/2003	Last EDR Contact: 09/12/2011
Number of Days to Update: 27	Next Scheduled EDR Contact: 12/26/2011
	Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003	Source: California Regional Water Quality Control Board Central Coast Region (3)
Date Data Arrived at EDR: 05/19/2003	Telephone: 805-542-4786
Date Made Active in Reports: 06/02/2003	Last EDR Contact: 07/18/2011
Number of Days to Update: 14	Next Scheduled EDR Contact: 10/31/2011
	Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004	Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Date Data Arrived at EDR: 10/20/2004	Telephone: 510-622-2433
Date Made Active in Reports: 11/19/2004	Last EDR Contact: 09/19/2011
Number of Days to Update: 30	Next Scheduled EDR Contact: 01/02/2012
	Data Release Frequency: No Update Planned

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001	Source: California Regional Water Quality Control Board North Coast (1)
Date Data Arrived at EDR: 02/28/2001	Telephone: 707-570-3769
Date Made Active in Reports: 03/29/2001	Last EDR Contact: 08/01/2011
Number of Days to Update: 29	Next Scheduled EDR Contact: 11/14/2011
	Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST: Leaking Underground Fuel Tank Report (GEOTRACKER)

Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 06/03/2021
Date Data Arrived at EDR: 06/03/2021
Date Made Active in Reports: 08/24/2021
Number of Days to Update: 82

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 09/07/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Quarterly

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 05/17/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 11/15/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 05/28/2021
Date Data Arrived at EDR: 06/22/2021
Date Made Active in Reports: 09/20/2021
Number of Days to Update: 90

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 11/15/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land

A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/28/2021	Source: EPA Region 1
Date Data Arrived at EDR: 06/11/2021	Telephone: 617-918-1313
Date Made Active in Reports: 09/07/2021	Last EDR Contact: 11/15/2021
Number of Days to Update: 88	Next Scheduled EDR Contact: 01/31/2022
	Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 06/01/2021	Source: EPA Region 7
Date Data Arrived at EDR: 06/11/2021	Telephone: 913-551-7003
Date Made Active in Reports: 09/07/2021	Last EDR Contact: 11/15/2021
Number of Days to Update: 88	Next Scheduled EDR Contact: 01/31/2022
	Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 05/27/2021	Source: EPA Region 8
Date Data Arrived at EDR: 06/11/2021	Telephone: 303-312-6271
Date Made Active in Reports: 09/07/2021	Last EDR Contact: 11/15/2021
Number of Days to Update: 88	Next Scheduled EDR Contact: 01/31/2022
	Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 05/27/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 06/11/2021	Telephone: 415-972-3372
Date Made Active in Reports: 09/07/2021	Last EDR Contact: 11/15/2021
Number of Days to Update: 88	Next Scheduled EDR Contact: 01/31/2022
	Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 04/27/2021	Source: EPA Region 10
Date Data Arrived at EDR: 06/11/2021	Telephone: 206-553-2857
Date Made Active in Reports: 09/07/2021	Last EDR Contact: 11/15/2021
Number of Days to Update: 88	Next Scheduled EDR Contact: 01/31/2022
	Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land

Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/06/2021	Source: EPA, Region 5
Date Data Arrived at EDR: 06/11/2021	Telephone: 312-886-7439
Date Made Active in Reports: 09/07/2021	Last EDR Contact: 11/15/2021
Number of Days to Update: 88	Next Scheduled EDR Contact: 01/31/2022
	Data Release Frequency: Varies

CPS-SLIC: Statewide SLIC Cases (GEOTRACKER)

Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 06/03/2021	Source: State Water Resources Control Board
Date Data Arrived at EDR: 06/03/2021	Telephone: 866-480-1028
Date Made Active in Reports: 08/24/2021	Last EDR Contact: 09/07/2021
Number of Days to Update: 82	Next Scheduled EDR Contact: 12/20/2021
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SLIC REG 6L: SLIC Sites

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: No Update Planned

Lists of state and tribal registered storage tanks

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/29/2021
Date Data Arrived at EDR: 02/17/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 33

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 11/01/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Varies

UST CLOSURE: Proposed Closure of Underground Storage Tank (UST) Cases

UST cases that are being considered for closure by either the State Water Resources Control Board or the Executive Director have been posted for a 60-day public comment period. UST Case Closures being proposed for consideration by the State Water Resources Control Board. These are primarily UST cases that meet closure criteria under the decisional framework in State Water Board Resolution No. 92-49 and other Board orders. UST Case Closures proposed for consideration by the Executive Director pursuant to State Water Board Resolution No. 2012-0061. These are cases that meet the criteria of the Low-Threat UST Case Closure Policy. UST Case Closure Review Denials and Approved Orders.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 05/20/2021
Date Data Arrived at EDR: 06/04/2021
Date Made Active in Reports: 08/30/2021
Number of Days to Update: 87

Source: State Water Resources Control Board
Telephone: 916-327-7844
Last EDR Contact: 09/08/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Varies

UST: Active UST Facilities

Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 06/03/2021
Date Data Arrived at EDR: 06/03/2021
Date Made Active in Reports: 08/24/2021
Number of Days to Update: 82

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 09/07/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Semi-Annually

MILITARY UST SITES: Military UST Sites (GEOTRACKER)

Military ust sites

Date of Government Version: 06/03/2021
Date Data Arrived at EDR: 06/03/2021
Date Made Active in Reports: 08/24/2021
Number of Days to Update: 82

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/07/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Varies

AST: Aboveground Petroleum Storage Tank Facilities

A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69

Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 09/09/2021
Next Scheduled EDR Contact: 12/27/2021
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 05/28/2021
Date Data Arrived at EDR: 06/22/2021
Date Made Active in Reports: 09/20/2021
Number of Days to Update: 90

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 11/15/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 05/17/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 11/15/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 05/27/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 11/15/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 06/01/2021	Source: EPA Region 7
Date Data Arrived at EDR: 06/11/2021	Telephone: 913-551-7003
Date Made Active in Reports: 09/07/2021	Last EDR Contact: 11/15/2021
Number of Days to Update: 88	Next Scheduled EDR Contact: 01/31/2022
	Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/06/2021	Source: EPA Region 5
Date Data Arrived at EDR: 06/11/2021	Telephone: 312-886-6136
Date Made Active in Reports: 09/07/2021	Last EDR Contact: 11/15/2021
Number of Days to Update: 88	Next Scheduled EDR Contact: 01/31/2022
	Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 04/27/2021	Source: EPA Region 10
Date Data Arrived at EDR: 06/11/2021	Telephone: 206-553-2857
Date Made Active in Reports: 09/07/2021	Last EDR Contact: 11/15/2021
Number of Days to Update: 88	Next Scheduled EDR Contact: 01/31/2022
	Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 04/28/2021	Source: EPA, Region 1
Date Data Arrived at EDR: 06/11/2021	Telephone: 617-918-1313
Date Made Active in Reports: 09/07/2021	Last EDR Contact: 11/15/2021
Number of Days to Update: 88	Next Scheduled EDR Contact: 01/31/2022
	Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 05/27/2021	Source: EPA Region 9
Date Data Arrived at EDR: 06/11/2021	Telephone: 415-972-3368
Date Made Active in Reports: 09/07/2021	Last EDR Contact: 11/15/2021
Number of Days to Update: 88	Next Scheduled EDR Contact: 01/31/2022
	Data Release Frequency: Varies

Lists of state and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008	Source: EPA, Region 7
Date Data Arrived at EDR: 04/22/2008	Telephone: 913-551-7365
Date Made Active in Reports: 05/19/2008	Last EDR Contact: 07/08/2021
Number of Days to Update: 27	Next Scheduled EDR Contact: 07/20/2009
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 07/22/2021
Date Data Arrived at EDR: 07/22/2021
Date Made Active in Reports: 10/08/2021
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 10/26/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: Quarterly

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 09/15/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Varies

Lists of state and tribal brownfield sites

BROWNFIELDS: Considered Brownfields Sites Listing

A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 06/17/2021
Date Data Arrived at EDR: 06/17/2021
Date Made Active in Reports: 09/13/2021
Number of Days to Update: 88

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 09/21/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/10/2021
Date Data Arrived at EDR: 06/10/2021
Date Made Active in Reports: 08/17/2021
Number of Days to Update: 68

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 09/14/2021
Next Scheduled EDR Contact: 12/27/2021
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 10/22/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 06/04/2021
Date Data Arrived at EDR: 06/04/2021
Date Made Active in Reports: 08/27/2021
Number of Days to Update: 84

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 09/08/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

Date of Government Version: 11/23/2020
Date Data Arrived at EDR: 11/23/2020
Date Made Active in Reports: 02/08/2021
Number of Days to Update: 77

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 11/05/2021
Next Scheduled EDR Contact: 02/21/2022
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 10/22/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 10/14/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Services, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 10/28/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 05/18/2021	Source: Drug Enforcement Administration
Date Data Arrived at EDR: 05/18/2021	Telephone: 202-307-1000
Date Made Active in Reports: 08/03/2021	Last EDR Contact: 11/16/2021
Number of Days to Update: 77	Next Scheduled EDR Contact: 03/07/2022
	Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005	Source: Department of Toxic Substance Control
Date Data Arrived at EDR: 08/03/2006	Telephone: 916-323-3400
Date Made Active in Reports: 08/24/2006	Last EDR Contact: 02/23/2009
Number of Days to Update: 21	Next Scheduled EDR Contact: 05/25/2009
	Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 07/22/2021	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 07/22/2021	Telephone: 916-323-3400
Date Made Active in Reports: 10/08/2021	Last EDR Contact: 10/26/2021
Number of Days to Update: 78	Next Scheduled EDR Contact: 02/07/2022
	Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2019	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 01/20/2021	Telephone: 916-255-6504
Date Made Active in Reports: 04/08/2021	Last EDR Contact: 11/11/2021
Number of Days to Update: 78	Next Scheduled EDR Contact: 01/17/2022
	Data Release Frequency: Varies

CERS HAZ WASTE: CERS HAZ WASTE

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

Date of Government Version: 07/15/2021	Source: CalEPA
Date Data Arrived at EDR: 07/15/2021	Telephone: 916-323-2514
Date Made Active in Reports: 10/06/2021	Last EDR Contact: 10/19/2021
Number of Days to Update: 83	Next Scheduled EDR Contact: 01/31/2022
	Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 05/18/2021
Date Data Arrived at EDR: 05/18/2021
Date Made Active in Reports: 08/03/2021
Number of Days to Update: 77

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/16/2021
Next Scheduled EDR Contact: 03/07/2022
Data Release Frequency: Quarterly

PFAS: PFAS Contamination Site Location Listing

A listing of PFAS contaminated sites included in the GeoTracker database.

Date of Government Version: 06/04/2021
Date Data Arrived at EDR: 06/04/2021
Date Made Active in Reports: 08/27/2021
Number of Days to Update: 84

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/08/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Varies

AQUEOUS FOAM: Former Fire Training Facility Assessments Listing

Airports shown on this list are those believed to use Aqueous Film Forming Foam (AFFF), and certified by the Federal Aviation Administration (FAA) under Title 14, Code of Federal Regulations (CFR), Part 139 (14 CFR Part 139). This list was created by SWRCB using information available from the FAA. Location points shown are from the latitude and longitude listed on the FAA airport master record.

Date of Government Version: 12/01/2019
Date Data Arrived at EDR: 08/19/2021
Date Made Active in Reports: 10/28/2021
Number of Days to Update: 70

Source: State Water Resources Control Board
Telephone: 916-341-5455
Last EDR Contact: 08/19/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Varies

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SAN FRANCISCO AST: Aboveground Storage Tank Site Listing

Aboveground storage tank sites

Date of Government Version: 08/05/2021
Date Data Arrived at EDR: 08/05/2021
Date Made Active in Reports: 10/29/2021
Number of Days to Update: 85

Source: San Francisco County Department of Public Health
Telephone: 415-252-3896
Last EDR Contact: 10/31/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Varies

CERS TANKS: California Environmental Reporting System (CERS) Tanks

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

Date of Government Version: 07/15/2021
Date Data Arrived at EDR: 07/15/2021
Date Made Active in Reports: 10/06/2021
Number of Days to Update: 83

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 10/19/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Quarterly

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 05/27/2021
Date Data Arrived at EDR: 05/28/2021
Date Made Active in Reports: 08/20/2021
Number of Days to Update: 84

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/24/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 07/29/2021
Date Data Arrived at EDR: 08/04/2021
Date Made Active in Reports: 08/31/2021
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 11/05/2021
Next Scheduled EDR Contact: 01/10/2022
Data Release Frequency: Semi-Annually

DEED: Deed Restriction Listing

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 05/28/2021	Source: DTSC and SWRCB
Date Data Arrived at EDR: 05/28/2021	Telephone: 916-323-3400
Date Made Active in Reports: 08/20/2021	Last EDR Contact: 08/31/2021
Number of Days to Update: 84	Next Scheduled EDR Contact: 12/13/2021
	Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 09/12/2021	Source: U.S. Department of Transportation
Date Data Arrived at EDR: 09/13/2021	Telephone: 202-366-4555
Date Made Active in Reports: 09/28/2021	Last EDR Contact: 09/13/2021
Number of Days to Update: 15	Next Scheduled EDR Contact: 01/03/2022
	Data Release Frequency: Quarterly

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 06/30/2021	Source: Office of Emergency Services
Date Data Arrived at EDR: 07/15/2021	Telephone: 916-845-8400
Date Made Active in Reports: 10/06/2021	Last EDR Contact: 10/19/2021
Number of Days to Update: 83	Next Scheduled EDR Contact: 01/31/2022
	Data Release Frequency: Semi-Annually

LDS: Land Disposal Sites Listing (GEOTRACKER)

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 06/03/2021	Source: State Water Quality Control Board
Date Data Arrived at EDR: 06/03/2021	Telephone: 866-480-1028
Date Made Active in Reports: 08/24/2021	Last EDR Contact: 09/07/2021
Number of Days to Update: 82	Next Scheduled EDR Contact: 12/20/2021
	Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing (GEOTRACKER)

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 06/03/2021	Source: State Water Resources Control Board
Date Data Arrived at EDR: 06/03/2021	Telephone: 866-480-1028
Date Made Active in Reports: 08/24/2021	Last EDR Contact: 09/07/2021
Number of Days to Update: 82	Next Scheduled EDR Contact: 12/20/2021
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012	Source: FirstSearch
Date Data Arrived at EDR: 01/03/2013	Telephone: N/A
Date Made Active in Reports: 02/22/2013	Last EDR Contact: 01/03/2013
Number of Days to Update: 50	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 09/13/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/15/2021	Telephone: (415) 495-8895
Date Made Active in Reports: 10/12/2021	Last EDR Contact: 09/15/2021
Number of Days to Update: 27	Next Scheduled EDR Contact: 01/03/2022
	Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 08/10/2021	Source: U.S. Army Corps of Engineers
Date Data Arrived at EDR: 08/17/2021	Telephone: 202-528-4285
Date Made Active in Reports: 10/22/2021	Last EDR Contact: 11/16/2021
Number of Days to Update: 66	Next Scheduled EDR Contact: 02/28/2022
	Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005	Source: USGS
Date Data Arrived at EDR: 11/10/2006	Telephone: 888-275-8747
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 10/15/2021
Number of Days to Update: 62	Next Scheduled EDR Contact: 01/24/2022
	Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018	Source: U.S. Geological Survey
Date Data Arrived at EDR: 04/11/2018	Telephone: 888-275-8747
Date Made Active in Reports: 11/06/2019	Last EDR Contact: 10/05/2021
Number of Days to Update: 574	Next Scheduled EDR Contact: 01/17/2022
	Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 11/08/2021
Next Scheduled EDR Contact: 02/21/2022
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 09/13/2021
Date Data Arrived at EDR: 09/15/2021
Date Made Active in Reports: 09/28/2021
Number of Days to Update: 13

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 09/15/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 11/01/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 11/05/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/17/2020
Date Made Active in Reports: 09/10/2020
Number of Days to Update: 85

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 09/17/2021
Next Scheduled EDR Contact: 12/27/2021
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 08/14/2020
Date Made Active in Reports: 11/04/2020
Number of Days to Update: 82

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 11/16/2021
Next Scheduled EDR Contact: 02/28/2022
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 07/19/2021
Date Data Arrived at EDR: 07/19/2021
Date Made Active in Reports: 10/12/2021
Number of Days to Update: 85

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 10/20/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 07/29/2021
Date Data Arrived at EDR: 08/04/2021
Date Made Active in Reports: 08/31/2021
Number of Days to Update: 27

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 11/05/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 10/20/2021
Date Data Arrived at EDR: 11/05/2021
Date Made Active in Reports: 11/12/2021
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 10/18/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 12/30/2020	Source: EPA
Date Data Arrived at EDR: 01/14/2021	Telephone: 202-564-6023
Date Made Active in Reports: 03/05/2021	Last EDR Contact: 11/05/2021
Number of Days to Update: 50	Next Scheduled EDR Contact: 02/14/2022
	Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 11/19/2020	Source: EPA
Date Data Arrived at EDR: 01/08/2021	Telephone: 202-566-0500
Date Made Active in Reports: 03/22/2021	Last EDR Contact: 10/08/2021
Number of Days to Update: 73	Next Scheduled EDR Contact: 01/17/2022
	Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/23/2016	Telephone: 202-564-2501
Date Made Active in Reports: 02/10/2017	Last EDR Contact: 09/30/2021
Number of Days to Update: 79	Next Scheduled EDR Contact: 01/17/2022
	Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009	Source: EPA
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 03/08/2021	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 03/11/2021	Telephone: 301-415-7169
Date Made Active in Reports: 05/11/2021	Last EDR Contact: 10/18/2021
Number of Days to Update: 61	Next Scheduled EDR Contact: 01/31/2022
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2019	Source: Department of Energy
Date Data Arrived at EDR: 12/01/2020	Telephone: 202-586-8719
Date Made Active in Reports: 02/09/2021	Last EDR Contact: 09/03/2021
Number of Days to Update: 70	Next Scheduled EDR Contact: 12/13/2021
	Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/05/2019	Telephone: N/A
Date Made Active in Reports: 11/11/2019	Last EDR Contact: 08/31/2021
Number of Days to Update: 251	Next Scheduled EDR Contact: 12/13/2021
	Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/06/2019	Telephone: 202-566-0517
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 11/05/2021
Number of Days to Update: 96	Next Scheduled EDR Contact: 02/14/2022
	Data Release Frequency: Varies

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/01/2019	Telephone: 202-343-9775
Date Made Active in Reports: 09/23/2019	Last EDR Contact: 09/27/2021
Number of Days to Update: 84	Next Scheduled EDR Contact: 01/10/2022
	Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 12/17/2007
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/17/2008
	Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/02/2020
Date Data Arrived at EDR: 01/28/2020
Date Made Active in Reports: 04/17/2020
Number of Days to Update: 80

Source: Department of Transportation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 10/26/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 06/30/2021
Date Data Arrived at EDR: 07/14/2021
Date Made Active in Reports: 07/16/2021
Number of Days to Update: 2

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 09/30/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 06/22/2020
Date Made Active in Reports: 11/20/2020
Number of Days to Update: 151

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 09/15/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 10/05/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 07/26/2021
Date Data Arrived at EDR: 07/27/2021
Date Made Active in Reports: 10/22/2021
Number of Days to Update: 87

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 11/01/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 08/30/2019
Date Data Arrived at EDR: 11/15/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 74

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 11/12/2021
Next Scheduled EDR Contact: 02/28/2022
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 07/29/2021
Date Data Arrived at EDR: 08/04/2021
Date Made Active in Reports: 08/31/2021
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 11/05/2021
Next Scheduled EDR Contact: 01/10/2022
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 06/30/2021
Date Data Arrived at EDR: 07/01/2021
Date Made Active in Reports: 09/28/2021
Number of Days to Update: 89

Source: DOL, Mine Safety & Health Administration
Telephone: 202-693-9424
Last EDR Contact: 09/09/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: Quarterly

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 05/03/2021
Date Data Arrived at EDR: 05/25/2021
Date Made Active in Reports: 08/11/2021
Number of Days to Update: 78

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 08/24/2021
Next Scheduled EDR Contact: 12/06/2021
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 05/06/2020
Date Data Arrived at EDR: 05/27/2020
Date Made Active in Reports: 08/13/2020
Number of Days to Update: 78

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 08/26/2021
Next Scheduled EDR Contact: 12/06/2021
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 08/26/2021
Next Scheduled EDR Contact: 12/06/2021
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 06/15/2021
Date Data Arrived at EDR: 06/16/2021
Date Made Active in Reports: 08/17/2021
Number of Days to Update: 62

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 09/14/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 05/05/2021
Date Data Arrived at EDR: 05/18/2021
Date Made Active in Reports: 08/17/2021
Number of Days to Update: 91

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 08/31/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/06/2021
Date Data Arrived at EDR: 05/21/2021
Date Made Active in Reports: 08/11/2021
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 08/26/2021
Next Scheduled EDR Contact: 12/06/2021
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 06/26/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/01/2021	Telephone: 202-564-2280
Date Made Active in Reports: 09/28/2021	Last EDR Contact: 10/05/2021
Number of Days to Update: 89	Next Scheduled EDR Contact: 01/17/2022
	Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2018	Source: Department of Defense
Date Data Arrived at EDR: 07/02/2020	Telephone: 703-704-1564
Date Made Active in Reports: 09/17/2020	Last EDR Contact: 10/07/2021
Number of Days to Update: 77	Next Scheduled EDR Contact: 01/24/2022
	Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 08/13/2021	Source: EPA
Date Data Arrived at EDR: 08/13/2021	Telephone: 800-385-6164
Date Made Active in Reports: 10/22/2021	Last EDR Contact: 11/15/2021
Number of Days to Update: 70	Next Scheduled EDR Contact: 02/28/2022
	Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989	Source: Department of Health Services
Date Data Arrived at EDR: 07/27/1994	Telephone: 916-255-2118
Date Made Active in Reports: 08/02/1994	Last EDR Contact: 05/31/1994
Number of Days to Update: 6	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 06/17/2021	Source: CAL EPA/Office of Emergency Information
Date Data Arrived at EDR: 06/17/2021	Telephone: 916-323-3400
Date Made Active in Reports: 09/14/2021	Last EDR Contact: 09/21/2021
Number of Days to Update: 89	Next Scheduled EDR Contact: 01/03/2022
	Data Release Frequency: Quarterly

CUPA LIVERMORE-PLEASANTON: CUPA Facility Listing

list of facilities associated with the various CUPA programs in Livermore-Pleasanton

Date of Government Version: 05/01/2019	Source: Livermore-Pleasanton Fire Department
Date Data Arrived at EDR: 05/14/2019	Telephone: 925-454-2361
Date Made Active in Reports: 07/17/2019	Last EDR Contact: 11/16/2021
Number of Days to Update: 64	Next Scheduled EDR Contact: 02/21/2022
	Data Release Frequency: Varies

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 05/25/2021
Date Data Arrived at EDR: 05/28/2021
Date Made Active in Reports: 08/20/2021
Number of Days to Update: 84

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 08/24/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: Annually

DRYCLEAN SOUTH COAST: South Coast Air Quality Management District Drycleaner Listing
A listing of dry cleaners in the South Coast Air Quality Management District

Date of Government Version: 08/18/2021
Date Data Arrived at EDR: 08/23/2021
Date Made Active in Reports: 11/12/2021
Number of Days to Update: 81

Source: South Coast Air Quality Management District
Telephone: 909-396-3211
Last EDR Contact: 11/16/2021
Next Scheduled EDR Contact: 03/07/2022
Data Release Frequency: Varies

DRYCLEAN AVAQMD: Antelope Valley Air Quality Management District Drycleaner Listing
A listing of dry cleaners in the Antelope Valley Air Quality Management District.

Date of Government Version: 08/24/2021
Date Data Arrived at EDR: 08/25/2021
Date Made Active in Reports: 11/17/2021
Number of Days to Update: 84

Source: Antelope Valley Air Quality Management District
Telephone: 661-723-8070
Last EDR Contact: 08/24/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: Varies

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 06/10/2021
Date Made Active in Reports: 08/27/2021
Number of Days to Update: 78

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 09/17/2021
Next Scheduled EDR Contact: 12/27/2021
Data Release Frequency: Varies

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 04/16/2021
Date Data Arrived at EDR: 04/20/2021
Date Made Active in Reports: 07/07/2021
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 11/04/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing
Financial Assurance information

Date of Government Version: 04/14/2021
Date Data Arrived at EDR: 04/15/2021
Date Made Active in Reports: 07/06/2021
Number of Days to Update: 82

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 10/05/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 08/13/2021
Date Data Arrived at EDR: 08/13/2021
Date Made Active in Reports: 11/05/2021
Number of Days to Update: 84

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 11/16/2021
Next Scheduled EDR Contact: 02/21/2022
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2019	Source: California Environmental Protection Agency
Date Data Arrived at EDR: 04/15/2020	Telephone: 916-255-1136
Date Made Active in Reports: 07/02/2020	Last EDR Contact: 10/08/2021
Number of Days to Update: 78	Next Scheduled EDR Contact: 01/17/2022
	Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 08/13/2021	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 08/13/2021	Telephone: 877-786-9427
Date Made Active in Reports: 11/08/2021	Last EDR Contact: 11/15/2021
Number of Days to Update: 87	Next Scheduled EDR Contact: 02/28/2022
	Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSTITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 01/22/2009	Telephone: 916-323-3400
Date Made Active in Reports: 04/08/2009	Last EDR Contact: 01/22/2009
Number of Days to Update: 76	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 08/13/2021	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 08/13/2021	Telephone: 916-323-3400
Date Made Active in Reports: 11/08/2021	Last EDR Contact: 11/15/2021
Number of Days to Update: 87	Next Scheduled EDR Contact: 02/28/2022
	Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 07/01/2021	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 07/01/2021	Telephone: 916-440-7145
Date Made Active in Reports: 09/24/2021	Last EDR Contact: 10/05/2021
Number of Days to Update: 85	Next Scheduled EDR Contact: 01/17/2022
	Data Release Frequency: Quarterly

MINES: Mines Site Location Listing

A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 06/03/2021	Source: Department of Conservation
Date Data Arrived at EDR: 06/03/2021	Telephone: 916-322-1080
Date Made Active in Reports: 08/24/2021	Last EDR Contact: 09/07/2021
Number of Days to Update: 82	Next Scheduled EDR Contact: 12/20/2021
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

MWMP: Medical Waste Management Program Listing

The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 05/06/2021	Source: Department of Public Health
Date Data Arrived at EDR: 05/28/2021	Telephone: 916-558-1784
Date Made Active in Reports: 08/20/2021	Last EDR Contact: 08/31/2021
Number of Days to Update: 84	Next Scheduled EDR Contact: 12/13/2021
	Data Release Frequency: Varies

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 05/10/2021	Source: State Water Resources Control Board
Date Data Arrived at EDR: 05/11/2021	Telephone: 916-445-9379
Date Made Active in Reports: 07/27/2021	Last EDR Contact: 11/09/2021
Number of Days to Update: 77	Next Scheduled EDR Contact: 02/21/2022
	Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing

A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 05/28/2021	Source: Department of Pesticide Regulation
Date Data Arrived at EDR: 05/28/2021	Telephone: 916-445-4038
Date Made Active in Reports: 08/20/2021	Last EDR Contact: 08/31/2021
Number of Days to Update: 84	Next Scheduled EDR Contact: 12/13/2021
	Data Release Frequency: Quarterly

PROC: Certified Processors Database

A listing of certified processors.

Date of Government Version: 06/04/2021	Source: Department of Conservation
Date Data Arrived at EDR: 06/04/2021	Telephone: 916-323-3836
Date Made Active in Reports: 08/27/2021	Last EDR Contact: 09/08/2021
Number of Days to Update: 84	Next Scheduled EDR Contact: 12/20/2021
	Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records

Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 03/12/2021	Source: State Water Resources Control Board
Date Data Arrived at EDR: 03/16/2021	Telephone: 916-445-3846
Date Made Active in Reports: 06/01/2021	Last EDR Contact: 08/26/2021
Number of Days to Update: 77	Next Scheduled EDR Contact: 12/27/2021
	Data Release Frequency: No Update Planned

UIC: UIC Listing

A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 06/03/2021	Source: Department of Conservation
Date Data Arrived at EDR: 06/03/2021	Telephone: 916-445-2408
Date Made Active in Reports: 08/25/2021	Last EDR Contact: 09/07/2021
Number of Days to Update: 83	Next Scheduled EDR Contact: 12/20/2021
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UIC GEO: Underground Injection Control Sites (GEOTRACKER)

Underground control injection sites

Date of Government Version: 06/03/2021
Date Data Arrived at EDR: 06/03/2021
Date Made Active in Reports: 08/24/2021
Number of Days to Update: 82

Source: State Water Resource Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/07/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing

Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water boards review found that more than one-third of the region's active disposal pits are operating without permission.

Date of Government Version: 02/11/2021
Date Data Arrived at EDR: 07/01/2021
Date Made Active in Reports: 09/29/2021
Number of Days to Update: 90

Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 10/08/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Varies

WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 11/15/2021
Next Scheduled EDR Contact: 02/28/2022
Data Release Frequency: No Update Planned

WIP: Well Investigation Program Case List

Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 09/14/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: No Update Planned

MILITARY PRIV SITES: Military Privatized Sites (GEOTRACKER)

Military privatized sites

Date of Government Version: 06/03/2021
Date Data Arrived at EDR: 06/03/2021
Date Made Active in Reports: 08/24/2021
Number of Days to Update: 82

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/07/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Varies

PROJECT: Project Sites (GEOTRACKER)

Projects sites

Date of Government Version: 06/03/2021
Date Data Arrived at EDR: 06/03/2021
Date Made Active in Reports: 08/24/2021
Number of Days to Update: 82

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/07/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Varies

WDR: Waste Discharge Requirements Listing

In general, the Waste Discharge Requirements (WDRs) Program (sometimes also referred to as the "Non Chapter 15 (Non 15) Program") regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g., sewage, wastewater, etc.) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 06/07/2021
Date Data Arrived at EDR: 06/07/2021
Date Made Active in Reports: 08/27/2021
Number of Days to Update: 81

Source: State Water Resources Control Board
Telephone: 916-341-5810
Last EDR Contact: 09/08/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Quarterly

CIWQS: California Integrated Water Quality System

The California Integrated Water Quality System (CIWQS) is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

Date of Government Version: 05/19/2021
Date Data Arrived at EDR: 05/19/2021
Date Made Active in Reports: 08/12/2021
Number of Days to Update: 85

Source: State Water Resources Control Board
Telephone: 866-794-4977
Last EDR Contact: 08/31/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: Varies

CERS: CalEPA Regulated Site Portal Data

The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

Date of Government Version: 07/15/2021
Date Data Arrived at EDR: 07/15/2021
Date Made Active in Reports: 10/06/2021
Number of Days to Update: 83

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 10/19/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

NON-CASE INFO: Non-Case Information Sites (GEOTRACKER)

Non-Case Information sites

Date of Government Version: 06/03/2021
Date Data Arrived at EDR: 06/03/2021
Date Made Active in Reports: 08/24/2021
Number of Days to Update: 82

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/07/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Varies

OTHER OIL GAS: Other Oil & Gas Projects Sites (GEOTRACKER)

Other Oil & Gas Projects sites

Date of Government Version: 06/03/2021
Date Data Arrived at EDR: 06/03/2021
Date Made Active in Reports: 08/24/2021
Number of Days to Update: 82

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/07/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Varies

PROD WATER PONDS: Produced Water Ponds Sites (GEOTRACKER)

Produced water ponds sites

Date of Government Version: 06/03/2021
Date Data Arrived at EDR: 06/03/2021
Date Made Active in Reports: 08/24/2021
Number of Days to Update: 82

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/07/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Varies

SAMPLING POINT: Sampling Point ? Public Sites (GEOTRACKER)

Sampling point - public sites

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 06/03/2021
Date Data Arrived at EDR: 06/03/2021
Date Made Active in Reports: 08/24/2021
Number of Days to Update: 82

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/07/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Varies

WELL STIM PROJ: Well Stimulation Project (GEOTRACKER)

Includes areas of groundwater monitoring plans, a depiction of the monitoring network, and the facilities, boundaries, and subsurface characteristics of the oilfield and the features (oil and gas wells, produced water ponds, UIC wells, water supply wells, etc?) being monitored

Date of Government Version: 06/03/2021
Date Data Arrived at EDR: 06/03/2021
Date Made Active in Reports: 08/25/2021
Number of Days to Update: 83

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/07/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Varies

PCS ENF: Enforcement data

No description is available for this data

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 02/05/2015
Date Made Active in Reports: 03/06/2015
Number of Days to Update: 29

Source: EPA
Telephone: 202-564-2497
Last EDR Contact: 09/30/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Varies

PCS INACTIVE: Listing of Inactive PCS Permits

An inactive permit is a facility that has shut down or is no longer discharging.

Date of Government Version: 11/05/2014
Date Data Arrived at EDR: 01/06/2015
Date Made Active in Reports: 05/06/2015
Number of Days to Update: 120

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/30/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Semi-Annually

PCS: Permit Compliance System

PCS is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

Date of Government Version: 07/14/2011
Date Data Arrived at EDR: 08/05/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 55

Source: EPA, Office of Water
Telephone: 202-564-2496
Last EDR Contact: 09/30/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Semi-Annually

HWTS: Hazardous Waste Tracking System

DTSC maintains the Hazardous Waste Tracking System that stores ID number information since the early 1980s and manifest data since 1993. The system collects both manifest copies from the generator and destination facility.

Date of Government Version: 07/13/2021
Date Data Arrived at EDR: 07/14/2021
Date Made Active in Reports: 10/06/2021
Number of Days to Update: 84

Source: Department of Toxic Substances Control
Telephone: 916-324-2444
Last EDR Contact: 09/30/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Varies

MINES MRDS: Mineral Resources Data System

Mineral Resources Data System

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/06/2018
Date Data Arrived at EDR: 10/21/2019
Date Made Active in Reports: 10/24/2019
Number of Days to Update: 3

Source: USGS
Telephone: 703-648-6533
Last EDR Contact: 08/26/2021
Next Scheduled EDR Contact: 12/06/2021
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A	Source: Department of Resources Recycling and Recovery
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 01/13/2014	Last EDR Contact: 06/01/2012
Number of Days to Update: 196	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A	Source: State Water Resources Control Board
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 12/30/2013	Last EDR Contact: 06/01/2012
Number of Days to Update: 182	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

CS ALAMEDA: Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/09/2019	Source: Alameda County Environmental Health Services
Date Data Arrived at EDR: 01/11/2019	Telephone: 510-567-6700
Date Made Active in Reports: 03/05/2019	Last EDR Contact: 09/30/2021
Number of Days to Update: 53	Next Scheduled EDR Contact: 01/17/2022
	Data Release Frequency: Semi-Annually

UST ALAMEDA: Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 06/29/2021	Source: Alameda County Environmental Health Services
Date Data Arrived at EDR: 06/30/2021	Telephone: 510-567-6700
Date Made Active in Reports: 09/22/2021	Last EDR Contact: 09/30/2021
Number of Days to Update: 84	Next Scheduled EDR Contact: 01/17/2022
	Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA AMADOR: CUPA Facility List

Cupa Facility List

Date of Government Version: 08/05/2021	Source: Amador County Environmental Health
Date Data Arrived at EDR: 08/06/2021	Telephone: 209-223-6439
Date Made Active in Reports: 09/17/2021	Last EDR Contact: 10/29/2021
Number of Days to Update: 42	Next Scheduled EDR Contact: 02/14/2022
	Data Release Frequency: Varies

BUTTE COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA BUTTE: CUPA Facility Listing
Cupa facility list.

Date of Government Version: 04/21/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 106

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 09/30/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA CALVERAS: CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 06/15/2021
Date Data Arrived at EDR: 06/16/2021
Date Made Active in Reports: 07/02/2021
Number of Days to Update: 16

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 09/14/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA COLUSA: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/06/2020
Date Data Arrived at EDR: 04/23/2020
Date Made Active in Reports: 07/10/2020
Number of Days to Update: 78

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 10/29/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

SL CONTRA COSTA: Site List

List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 07/20/2021
Date Data Arrived at EDR: 07/20/2021
Date Made Active in Reports: 10/11/2021
Number of Days to Update: 83

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 10/22/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA DEL NORTE: CUPA Facility List
Cupa Facility list

Date of Government Version: 06/29/2021
Date Data Arrived at EDR: 07/23/2021
Date Made Active in Reports: 10/08/2021
Number of Days to Update: 77

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 10/29/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: Varies

EL DORADO COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA EL DORADO: CUPA Facility List CUPA facility list.

Date of Government Version: 07/30/2021
Date Data Arrived at EDR: 08/03/2021
Date Made Active in Reports: 10/26/2021
Number of Days to Update: 84

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 11/16/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA FRESNO: CUPA Resources List

Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 04/09/2021
Date Data Arrived at EDR: 06/23/2021
Date Made Active in Reports: 09/17/2021
Number of Days to Update: 86

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 10/01/2021
Next Scheduled EDR Contact: 01/10/2022
Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA GLENN: CUPA Facility List Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 49

Source: Glenn County Air Pollution Control District
Telephone: 830-934-6500
Last EDR Contact: 07/13/2021
Next Scheduled EDR Contact: 11/01/2021
Data Release Frequency: No Update Planned

HUMBOLDT COUNTY:

CUPA HUMBOLDT: CUPA Facility List CUPA facility list.

Date of Government Version: 08/12/2021
Date Data Arrived at EDR: 08/12/2021
Date Made Active in Reports: 11/08/2021
Number of Days to Update: 88

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 11/11/2021
Next Scheduled EDR Contact: 02/28/2022
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA IMPERIAL: CUPA Facility List Cupa facility list.

Date of Government Version: 07/13/2021
Date Data Arrived at EDR: 07/15/2021
Date Made Active in Reports: 10/06/2021
Number of Days to Update: 83

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 10/15/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

INYO COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA INYO: CUPA Facility List Cupa facility list.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/03/2018
Date Made Active in Reports: 06/14/2018
Number of Days to Update: 72

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 11/11/2021
Next Scheduled EDR Contact: 02/28/2022
Data Release Frequency: Varies

KERN COUNTY:

CUPA KERN: CUPA Facility List

A listing of sites included in the Kern County Hazardous Material Business Plan.

Date of Government Version: 07/06/2021
Date Data Arrived at EDR: 08/12/2021
Date Made Active in Reports: 10/07/2021
Number of Days to Update: 56

Source: Kern County Public Health
Telephone: 661-321-3000
Last EDR Contact: 11/11/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Varies

UST KERN: Underground Storage Tank Sites & Tank Listing Kern County Sites and Tanks Listing.

Date of Government Version: 07/06/2021
Date Data Arrived at EDR: 08/12/2021
Date Made Active in Reports: 08/18/2021
Number of Days to Update: 6

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 11/11/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA KINGS: CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 12/03/2020
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/14/2021
Number of Days to Update: 78

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 11/11/2021
Next Scheduled EDR Contact: 02/28/2022
Data Release Frequency: Varies

LAKE COUNTY:

CUPA LAKE: CUPA Facility List Cupa facility list

Date of Government Version: 07/27/2021
Date Data Arrived at EDR: 07/28/2021
Date Made Active in Reports: 10/21/2021
Number of Days to Update: 85

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 10/06/2021
Next Scheduled EDR Contact: 01/24/2022
Data Release Frequency: Varies

LASSEN COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA LASSEN: CUPA Facility List Cupa facility list

Date of Government Version: 07/31/2020
Date Data Arrived at EDR: 08/21/2020
Date Made Active in Reports: 11/09/2020
Number of Days to Update: 80

Source: Lassen County Environmental Health
Telephone: 530-251-8528
Last EDR Contact: 11/11/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

LOS ANGELES COUNTY:

AOCONCERN: Key Areas of Concerns in Los Angeles County

San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office. Date of Government Version: 3/30/2009 Exide Site area is a cleanup plan of lead-impacted soil surrounding the former Exide Facility as designated by the DTSC. Date of Government Version: 7/17/2017

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: N/A
Telephone: N/A
Last EDR Contact: 09/09/2021
Next Scheduled EDR Contact: 12/27/2021
Data Release Frequency: No Update Planned

HMS LOS ANGELES: HMS: Street Number List

Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 07/08/2021
Date Data Arrived at EDR: 07/09/2021
Date Made Active in Reports: 09/29/2021
Number of Days to Update: 82

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 10/15/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Semi-Annually

LF LOS ANGELES: List of Solid Waste Facilities

Solid Waste Facilities in Los Angeles County.

Date of Government Version: 07/09/2021
Date Data Arrived at EDR: 07/09/2021
Date Made Active in Reports: 09/29/2021
Number of Days to Update: 82

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 10/08/2021
Next Scheduled EDR Contact: 01/24/2022
Data Release Frequency: Varies

LF LOS ANGELES CITY: City of Los Angeles Landfills

Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2021
Date Data Arrived at EDR: 02/18/2021
Date Made Active in Reports: 05/10/2021
Number of Days to Update: 81

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 10/05/2021
Next Scheduled EDR Contact: 01/24/2022
Data Release Frequency: Varies

LOS ANGELES AST: Active & Inactive AST Inventory

A listing of active & inactive above ground petroleum storage tank site locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 09/24/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LOS ANGELES CO LF METHANE: Methane Producing Landfills

This data was created on April 30, 2012 to represent known disposal sites in Los Angeles County that may produce and emanate methane gas. The shapefile contains disposal sites within Los Angeles County that once accepted degradable refuse material. Information used to create this data was extracted from a landfill survey performed by County Engineers (Major Waste System Map, 1973) as well as historical records from CalRecycle, Regional Water Quality Control Board, and Los Angeles County Department of Public Health

Date of Government Version: 02/04/2021	Source: Los Angeles County Department of Public Works
Date Data Arrived at EDR: 04/16/2021	Telephone: 626-458-6973
Date Made Active in Reports: 04/21/2021	Last EDR Contact: 10/08/2021
Number of Days to Update: 5	Next Scheduled EDR Contact: 01/24/2022
	Data Release Frequency: No Update Planned

LOS ANGELES HM: Active & Inactive Hazardous Materials Inventory

A listing of active & inactive hazardous materials facility locations, located in the City of Los Angeles.

Date of Government Version: 04/19/2021	Source: Los Angeles Fire Department
Date Data Arrived at EDR: 06/17/2021	Telephone: 213-978-3800
Date Made Active in Reports: 06/28/2021	Last EDR Contact: 09/24/2021
Number of Days to Update: 11	Next Scheduled EDR Contact: 01/03/2022
	Data Release Frequency: Varies

LOS ANGELES UST: Active & Inactive UST Inventory

A listing of active & inactive underground storage tank site locations and underground storage tank historical sites, located in the City of Los Angeles.

Date of Government Version: 04/19/2021	Source: Los Angeles Fire Department
Date Data Arrived at EDR: 06/17/2021	Telephone: 213-978-3800
Date Made Active in Reports: 09/14/2021	Last EDR Contact: 09/24/2021
Number of Days to Update: 89	Next Scheduled EDR Contact: 01/03/2022
	Data Release Frequency: Varies

SITE MIT LOS ANGELES: Site Mitigation List

Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 05/26/2021	Source: Community Health Services
Date Data Arrived at EDR: 07/09/2021	Telephone: 323-890-7806
Date Made Active in Reports: 09/29/2021	Last EDR Contact: 10/15/2021
Number of Days to Update: 82	Next Scheduled EDR Contact: 01/24/2022
	Data Release Frequency: Annually

UST EL SEGUNDO: City of El Segundo Underground Storage Tank

Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/21/2017	Source: City of El Segundo Fire Department
Date Data Arrived at EDR: 04/19/2017	Telephone: 310-524-2236
Date Made Active in Reports: 05/10/2017	Last EDR Contact: 10/06/2021
Number of Days to Update: 21	Next Scheduled EDR Contact: 01/24/2022
	Data Release Frequency: No Update Planned

UST LONG BEACH: City of Long Beach Underground Storage Tank

Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 04/22/2019	Source: City of Long Beach Fire Department
Date Data Arrived at EDR: 04/23/2019	Telephone: 562-570-2563
Date Made Active in Reports: 06/27/2019	Last EDR Contact: 10/14/2021
Number of Days to Update: 65	Next Scheduled EDR Contact: 01/31/2022
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST TORRANCE: City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 02/02/2021	Source: City of Torrance Fire Department
Date Data Arrived at EDR: 04/28/2021	Telephone: 310-618-2973
Date Made Active in Reports: 07/13/2021	Last EDR Contact: 10/15/2021
Number of Days to Update: 76	Next Scheduled EDR Contact: 01/31/2022
	Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA MADERA: CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 08/10/2020	Source: Madera County Environmental Health
Date Data Arrived at EDR: 08/12/2020	Telephone: 559-675-7823
Date Made Active in Reports: 10/23/2020	Last EDR Contact: 11/11/2021
Number of Days to Update: 72	Next Scheduled EDR Contact: 02/28/2022
	Data Release Frequency: Varies

MARIN COUNTY:

UST MARIN: Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 09/26/2018	Source: Public Works Department Waste Management
Date Data Arrived at EDR: 10/04/2018	Telephone: 415-473-6647
Date Made Active in Reports: 11/02/2018	Last EDR Contact: 09/23/2021
Number of Days to Update: 29	Next Scheduled EDR Contact: 01/10/2022
	Data Release Frequency: Semi-Annually

MENDOCINO COUNTY:

UST MENDOCINO: Mendocino County UST Database
A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 03/24/2021	Source: Department of Public Health
Date Data Arrived at EDR: 04/07/2021	Telephone: 707-463-4466
Date Made Active in Reports: 06/24/2021	Last EDR Contact: 11/16/2021
Number of Days to Update: 78	Next Scheduled EDR Contact: 03/07/2022
	Data Release Frequency: Annually

MERCED COUNTY:

CUPA MERCED: CUPA Facility List
CUPA facility list.

Date of Government Version: 08/11/2021	Source: Merced County Environmental Health
Date Data Arrived at EDR: 08/12/2021	Telephone: 209-381-1094
Date Made Active in Reports: 11/08/2021	Last EDR Contact: 11/11/2021
Number of Days to Update: 88	Next Scheduled EDR Contact: 02/28/2022
	Data Release Frequency: Varies

MONO COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA MONO: CUPA Facility List CUPA Facility List

Date of Government Version: 02/22/2021
Date Data Arrived at EDR: 03/02/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 78

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 11/16/2021
Next Scheduled EDR Contact: 06/06/3021
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA MONTEREY: CUPA Facility Listing

CUPA Program listing from the Environmental Health Division.

Date of Government Version: 06/23/2021
Date Data Arrived at EDR: 06/23/2021
Date Made Active in Reports: 06/24/2021
Number of Days to Update: 1

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 09/23/2021
Next Scheduled EDR Contact: 01/10/2022
Data Release Frequency: Varies

NAPA COUNTY:

LUST NAPA: Sites With Reported Contamination

A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 11/16/2021
Next Scheduled EDR Contact: 03/07/2022
Data Release Frequency: No Update Planned

UST NAPA: Closed and Operating Underground Storage Tank Sites

Underground storage tank sites located in Napa county.

Date of Government Version: 09/05/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 52

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 11/16/2021
Next Scheduled EDR Contact: 03/07/2022
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA NEVADA: CUPA Facility List

CUPA facility list.

Date of Government Version: 07/28/2021
Date Data Arrived at EDR: 07/28/2021
Date Made Active in Reports: 10/21/2021
Number of Days to Update: 85

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 10/22/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: Varies

ORANGE COUNTY:

IND_SITE ORANGE: List of Industrial Site Cleanups

Petroleum and non-petroleum spills.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 07/09/2021
Date Data Arrived at EDR: 08/03/2021
Date Made Active in Reports: 10/26/2021
Number of Days to Update: 84

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 10/29/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Annually

LUST ORANGE: List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 07/09/2021
Date Data Arrived at EDR: 08/03/2021
Date Made Active in Reports: 10/26/2021
Number of Days to Update: 84

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 10/29/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Quarterly

UST ORANGE: List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 07/09/2021
Date Data Arrived at EDR: 07/29/2021
Date Made Active in Reports: 10/19/2021
Number of Days to Update: 82

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 10/29/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Quarterly

PLACER COUNTY:

MS PLACER: Master List of Facilities

List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 05/25/2021
Date Data Arrived at EDR: 05/26/2021
Date Made Active in Reports: 06/01/2021
Number of Days to Update: 6

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 08/24/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA PLUMAS: CUPA Facility List

Plumas County CUPA Program facilities.

Date of Government Version: 03/31/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/26/2019
Number of Days to Update: 64

Source: Plumas County Environmental Health
Telephone: 530-283-6355
Last EDR Contact: 10/14/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

RIVERSIDE COUNTY:

LUST RIVERSIDE: Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 06/29/2021
Date Data Arrived at EDR: 06/30/2021
Date Made Active in Reports: 07/14/2021
Number of Days to Update: 14

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 09/09/2021
Next Scheduled EDR Contact: 12/27/2021
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST RIVERSIDE: Underground Storage Tank Tank List

Underground storage tank sites located in Riverside county.

Date of Government Version: 06/29/2021
Date Data Arrived at EDR: 06/30/2021
Date Made Active in Reports: 07/14/2021
Number of Days to Update: 14

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 09/09/2021
Next Scheduled EDR Contact: 12/27/2021
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

CS SACRAMENTO: Toxic Site Clean-Up List

List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 03/30/2021
Date Data Arrived at EDR: 04/01/2021
Date Made Active in Reports: 06/23/2021
Number of Days to Update: 83

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 09/28/2021
Next Scheduled EDR Contact: 01/10/2022
Data Release Frequency: Quarterly

ML SACRAMENTO: Master Hazardous Materials Facility List

Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 08/02/2021
Date Data Arrived at EDR: 08/04/2021
Date Made Active in Reports: 11/02/2021
Number of Days to Update: 90

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 10/01/2021
Next Scheduled EDR Contact: 01/10/2022
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA SAN BENITO: CUPA Facility List

Cupa facility list

Date of Government Version: 07/27/2021
Date Data Arrived at EDR: 07/28/2021
Date Made Active in Reports: 10/21/2021
Number of Days to Update: 85

Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 10/29/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Varies

SAN BERNARDINO COUNTY:

PERMITS SAN BERNARDINO: Hazardous Material Permits

This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 08/11/2021
Date Data Arrived at EDR: 08/12/2021
Date Made Active in Reports: 11/08/2021
Number of Days to Update: 88

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 11/01/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

HMMD SAN DIEGO: Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 05/28/2021
Date Data Arrived at EDR: 05/28/2021
Date Made Active in Reports: 08/20/2021
Number of Days to Update: 84

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 08/31/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: Quarterly

LF SAN DIEGO: Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/01/2020
Date Data Arrived at EDR: 11/23/2020
Date Made Active in Reports: 02/08/2021
Number of Days to Update: 77

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 11/11/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

SAN DIEGO CO LOP: Local Oversight Program Listing

A listing of all LOP release sites that are or were under the County of San Diego's jurisdiction. Included are closed or transferred cases, open cases, and cases that did not have a case type indicated. The cases without a case type are mostly complaints; however, some of them could be LOP cases.

Date of Government Version: 07/14/2020
Date Data Arrived at EDR: 07/16/2020
Date Made Active in Reports: 09/29/2020
Number of Days to Update: 75

Source: Department of Environmental Health
Telephone: 858-505-6874
Last EDR Contact: 10/15/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

SAN DIEGO CO SAM: Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 08/24/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

CUPA SAN FRANCISCO CO: CUPA Facility Listing

Cupa facilities

Date of Government Version: 08/05/2021
Date Data Arrived at EDR: 08/05/2021
Date Made Active in Reports: 10/29/2021
Number of Days to Update: 85

Source: San Francisco County Department of Environmental Health
Telephone: 415-252-3896
Last EDR Contact: 11/11/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Varies

LUST SAN FRANCISCO: Local Oversight Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 11/01/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: No Update Planned

UST SAN FRANCISCO: Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

Date of Government Version: 08/05/2021
Date Data Arrived at EDR: 08/05/2021
Date Made Active in Reports: 10/29/2021
Number of Days to Update: 85

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 10/31/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

UST SAN JOAQUIN: San Joaquin Co. UST

A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/22/2018
Date Data Arrived at EDR: 06/26/2018
Date Made Active in Reports: 07/11/2018
Number of Days to Update: 15

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 09/09/2021
Next Scheduled EDR Contact: 12/27/2021
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA SAN LUIS OBISPO: CUPA Facility List

Cupa Facility List.

Date of Government Version: 08/10/2021
Date Data Arrived at EDR: 08/11/2021
Date Made Active in Reports: 11/08/2021
Number of Days to Update: 89

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 11/11/2021
Next Scheduled EDR Contact: 02/28/2022
Data Release Frequency: Varies

SAN MATEO COUNTY:

BI SAN MATEO: Business Inventory

List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 02/20/2020
Date Data Arrived at EDR: 02/20/2020
Date Made Active in Reports: 04/24/2020
Number of Days to Update: 64

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 09/10/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Annually

LUST SAN MATEO: Fuel Leak List

A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 03/29/2019
Date Data Arrived at EDR: 03/29/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 61

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 08/31/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA SANTA BARBARA: CUPA Facility Listing

CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 11/11/2021
Next Scheduled EDR Contact: 02/28/2022
Data Release Frequency: No Update Planned

SANTA CLARA COUNTY:

CUPA SANTA CLARA: Cupa Facility List

Cupa facility list

Date of Government Version: 08/04/2021
Date Data Arrived at EDR: 08/05/2021
Date Made Active in Reports: 10/29/2021
Number of Days to Update: 85

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 08/04/2021
Next Scheduled EDR Contact: 11/29/2021
Data Release Frequency: Varies

HIST LUST SANTA CLARA: HIST LUST - Fuel Leak Site Activity Report

A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LUST SANTA CLARA: LOP Listing

A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 11/16/2021
Next Scheduled EDR Contact: 03/07/2022
Data Release Frequency: No Update Planned

SAN JOSE HAZMAT: Hazardous Material Facilities

Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 11/03/2020
Date Data Arrived at EDR: 11/05/2020
Date Made Active in Reports: 01/26/2021
Number of Days to Update: 82

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 11/11/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA SANTA CRUZ: CUPA Facility List

CUPA facility listing.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 90

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 11/11/2021
Next Scheduled EDR Contact: 02/28/2022
Data Release Frequency: Varies

SHASTA COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA SHASTA: CUPA Facility List Cupa Facility List.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/19/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 51

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 11/11/2021
Next Scheduled EDR Contact: 02/28/2022
Data Release Frequency: Varies

SOLANO COUNTY:

LUST SOLANO: Leaking Underground Storage Tanks

A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/04/2019
Date Data Arrived at EDR: 06/06/2019
Date Made Active in Reports: 08/13/2019
Number of Days to Update: 68

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 08/24/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: Quarterly

UST SOLANO: Underground Storage Tanks

Underground storage tank sites located in Solano county.

Date of Government Version: 06/22/2021
Date Data Arrived at EDR: 06/23/2021
Date Made Active in Reports: 09/17/2021
Number of Days to Update: 86

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 09/09/2021
Next Scheduled EDR Contact: 12/12/2021
Data Release Frequency: Quarterly

SONOMA COUNTY:

CUPA SONOMA: Cupa Facility List Cupa Facility list

Date of Government Version: 07/02/2021
Date Data Arrived at EDR: 07/06/2021
Date Made Active in Reports: 07/14/2021
Number of Days to Update: 8

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 09/14/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Varies

LUST SONOMA: Leaking Underground Storage Tank Sites

A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 06/30/2021
Date Data Arrived at EDR: 06/30/2021
Date Made Active in Reports: 09/24/2021
Number of Days to Update: 86

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 09/14/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA STANISLAUS: CUPA Facility List Cupa facility list

Date of Government Version: 05/14/2021
Date Data Arrived at EDR: 05/17/2021
Date Made Active in Reports: 08/03/2021
Number of Days to Update: 78

Source: Stanislaus County Department of Environmental Protection
Telephone: 209-525-6751
Last EDR Contact: 10/06/2021
Next Scheduled EDR Contact: 01/24/2022
Data Release Frequency: Varies

SUTTER COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST SUTTER: Underground Storage Tanks

Underground storage tank sites located in Sutter county.

Date of Government Version: 08/23/2021
Date Data Arrived at EDR: 08/25/2021
Date Made Active in Reports: 11/17/2021
Number of Days to Update: 84

Source: Sutter County Environmental Health Services
Telephone: 530-822-7500
Last EDR Contact: 08/24/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA TEHAMA: CUPA Facility List

Cupa facilities

Date of Government Version: 01/13/2021
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 04/06/2021
Number of Days to Update: 82

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 11/11/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA TRINITY: CUPA Facility List

Cupa facility list

Date of Government Version: 07/14/2021
Date Data Arrived at EDR: 07/15/2021
Date Made Active in Reports: 10/06/2021
Number of Days to Update: 83

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 10/15/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

TULARE COUNTY:

CUPA TULARE: CUPA Facility List

Cupa program facilities

Date of Government Version: 04/26/2021
Date Data Arrived at EDR: 04/28/2021
Date Made Active in Reports: 07/13/2021
Number of Days to Update: 76

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 11/01/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA TUOLUMNE: CUPA Facility List

Cupa facility list

Date of Government Version: 04/23/2018
Date Data Arrived at EDR: 04/25/2018
Date Made Active in Reports: 06/25/2018
Number of Days to Update: 61

Source: Division of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 10/14/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

VENTURA COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

BWT VENTURA: Business Plan, Hazardous Waste Producers, and Operating Underground Tanks

The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 05/26/2021	Source: Ventura County Environmental Health Division
Date Data Arrived at EDR: 07/19/2021	Telephone: 805-654-2813
Date Made Active in Reports: 10/08/2021	Last EDR Contact: 10/18/2021
Number of Days to Update: 81	Next Scheduled EDR Contact: 01/31/2022
	Data Release Frequency: Quarterly

LF VENTURA: Inventory of Illegal Abandoned and Inactive Sites

Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011	Source: Environmental Health Division
Date Data Arrived at EDR: 12/01/2011	Telephone: 805-654-2813
Date Made Active in Reports: 01/19/2012	Last EDR Contact: 09/23/2021
Number of Days to Update: 49	Next Scheduled EDR Contact: 01/10/2022
	Data Release Frequency: No Update Planned

LUST VENTURA: Listing of Underground Tank Cleanup Sites

Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008	Source: Environmental Health Division
Date Data Arrived at EDR: 06/24/2008	Telephone: 805-654-2813
Date Made Active in Reports: 07/31/2008	Last EDR Contact: 11/05/2021
Number of Days to Update: 37	Next Scheduled EDR Contact: 02/21/2022
	Data Release Frequency: No Update Planned

MED WASTE VENTURA: Medical Waste Program List

To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 05/26/2021	Source: Ventura County Resource Management Agency
Date Data Arrived at EDR: 07/19/2021	Telephone: 805-654-2813
Date Made Active in Reports: 10/07/2021	Last EDR Contact: 10/18/2021
Number of Days to Update: 80	Next Scheduled EDR Contact: 01/31/2022
	Data Release Frequency: Quarterly

UST VENTURA: Underground Tank Closed Sites List

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 05/26/2021	Source: Environmental Health Division
Date Data Arrived at EDR: 06/04/2021	Telephone: 805-654-2813
Date Made Active in Reports: 08/27/2021	Last EDR Contact: 09/08/2021
Number of Days to Update: 84	Next Scheduled EDR Contact: 12/20/2021
	Data Release Frequency: Quarterly

YOLO COUNTY:

UST YOLO: Underground Storage Tank Comprehensive Facility Report

Underground storage tank sites located in Yolo county.

Date of Government Version: 06/22/2021	Source: Yolo County Department of Health
Date Data Arrived at EDR: 06/28/2021	Telephone: 530-666-8646
Date Made Active in Reports: 09/21/2021	Last EDR Contact: 09/23/2021
Number of Days to Update: 85	Next Scheduled EDR Contact: 01/10/2022
	Data Release Frequency: Annually

YUBA COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA YUBA: CUPA Facility List

CUPA facility listing for Yuba County.

Date of Government Version: 07/20/2021
Date Data Arrived at EDR: 07/20/2021
Date Made Active in Reports: 10/08/2021
Number of Days to Update: 80

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 10/22/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 07/23/2021
Date Data Arrived at EDR: 08/10/2021
Date Made Active in Reports: 11/08/2021
Number of Days to Update: 90

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 11/12/2021
Next Scheduled EDR Contact: 02/21/2022
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 04/10/2021
Date Made Active in Reports: 05/16/2019
Number of Days to Update: 36

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 10/05/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 04/29/2020
Date Made Active in Reports: 07/10/2020
Number of Days to Update: 72

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 10/29/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/19/2019
Date Made Active in Reports: 09/10/2019
Number of Days to Update: 53

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 10/07/2021
Next Scheduled EDR Contact: 01/24/2022
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 02/24/2021
Number of Days to Update: 13

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 11/12/2021
Next Scheduled EDR Contact: 02/28/2022
Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 05/31/2018

Date Data Arrived at EDR: 06/19/2019

Date Made Active in Reports: 09/03/2019

Number of Days to Update: 76

Source: Department of Natural Resources

Telephone: N/A

Last EDR Contact: 09/01/2021

Next Scheduled EDR Contact: 12/20/2021

Data Release Frequency: Annually

Oil/Gas Pipelines

Source: Endeavor Business Media

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data

Source: Endeavor Business Media

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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities

Source: Department of Social Services

Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK® - PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

AREC - VACANT LAND
9407 SOUTH H STREET
BAKERSFIELD, CA 93307

TARGET PROPERTY COORDINATES

Latitude (North):	35.271376 - 35° 16' 16.95"
Longitude (West):	119.022516 - 119° 1' 21.06"
Universal Transverse Mercator:	Zone 11
UTM X (Meters):	316036.3
UTM Y (Meters):	3904815.2
Elevation:	352 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	12013990 GOSFORD, CA
Version Date:	2018

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

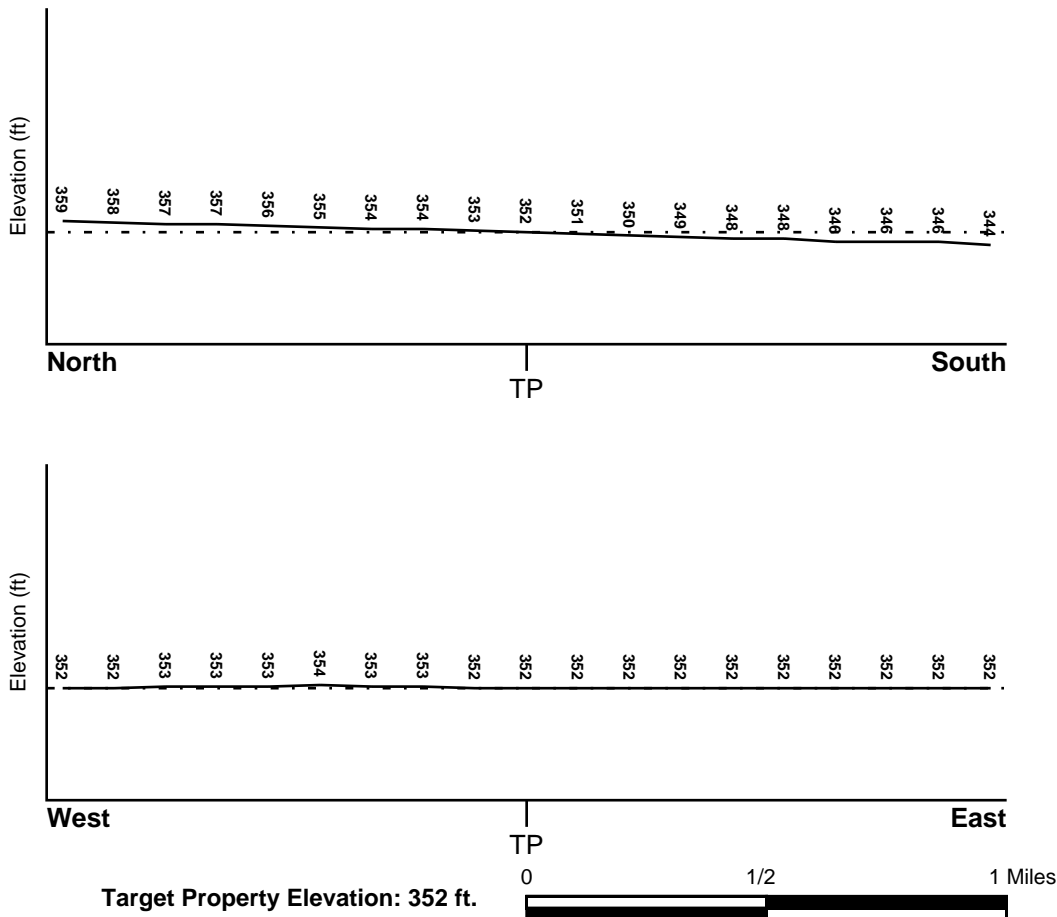
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General SSE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

<u>Flood Plain Panel at Target Property</u>	<u>FEMA Source Type</u>
06029C2300E	FEMA FIRM Flood data
<u>Additional Panels in search area:</u>	<u>FEMA Source Type</u>
Not Reported	

NATIONAL WETLAND INVENTORY

<u>NWI Quad at Target Property</u>	<u>NWI Electronic Data Coverage</u>
GOSFORD	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

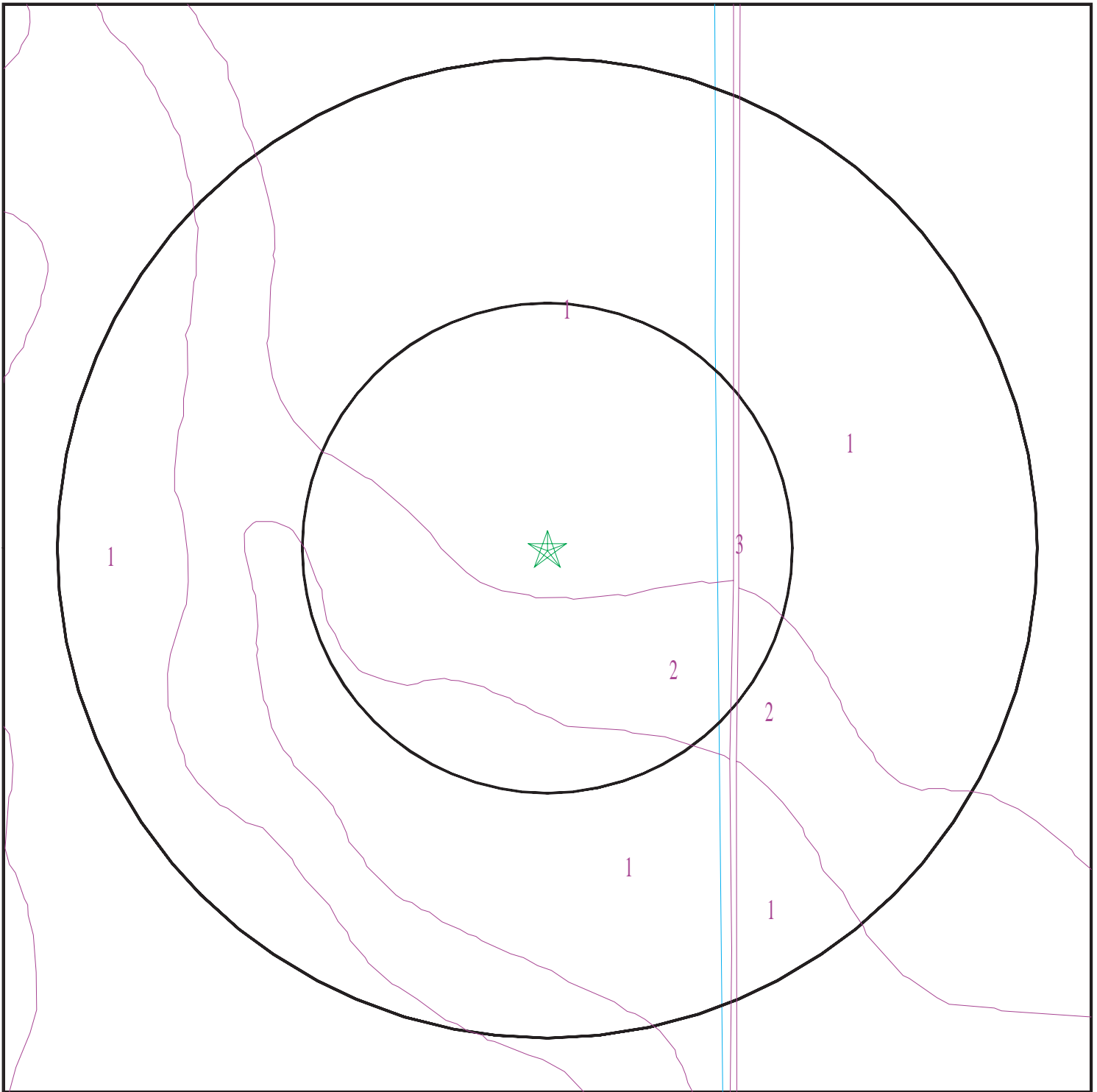
Era: Cenozoic
System: Quaternary
Series: Quaternary
Code: Q (*decoded above as Era, System & Series*)

GEOLOGIC AGE IDENTIFICATION

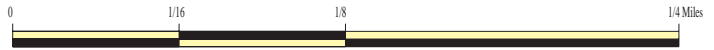
Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 6757422.2s



- ★ Target Property
- SSURGO Soil
- Water



SITE NAME: AREC - Vacant Land
ADDRESS: 9407 South H Street
Bakersfield CA 93307
LAT/LONG: 35.271376 / 119.022516

CLIENT: ATC Group Services LLC
CONTACT: Robert Petrisko
INQUIRY #: 6757422.2s
DATE: November 19, 2021 9:37 am

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: KIMBERLINA

Soil Surface Texture:
Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	9 inches		Not reported	Not reported	Max: 14 Min: 4	Max: 8.4 Min: 7.9
2	9 inches	44 inches		Not reported	Not reported	Max: 14 Min: 4	Max: 8.4 Min: 7.9
3	44 inches	70 inches		Not reported	Not reported	Max: 14 Min: 4	Max: 8.4 Min: 7.9

Soil Map ID: 2

Soil Component Name: CAJON

Soil Surface Texture:
Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Somewhat excessively drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	9 inches		Not reported	Not reported	Max: 141 Min: 42	Max: 8.4 Min: 7.4
2	9 inches	40 inches		Not reported	Not reported	Max: 141 Min: 42	Max: 8.4 Min: 7.4
3	40 inches	59 inches		Not reported	Not reported	Max: 141 Min: 42	Max: 8.4 Min: 7.4

Soil Map ID: 3

Soil Component Name: Water

Soil Surface Texture:

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class:

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
B10	USGS40000162032	1/4 - 1/2 Mile SW
C11	USGS40000162133	1/4 - 1/2 Mile WNW
17	USGS40000162091	1/2 - 1 Mile West
18	USGS40000162024	1/2 - 1 Mile ESE
20	USGS40000162144	1/2 - 1 Mile ENE
22	USGS40000162206	1/2 - 1 Mile NNW
28	USGS40000162096	1/2 - 1 Mile West

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
A1	CADDW00000020327	1/8 - 1/4 Mile NE
A2	CAUSGSN00007998	1/8 - 1/4 Mile NE
A3	CAUSGS000000986	1/8 - 1/4 Mile NE
A4	17638	1/8 - 1/4 Mile NE
5	17620	1/8 - 1/4 Mile SE
6	CADWR9000017517	1/8 - 1/4 Mile NW
B7	17623	1/4 - 1/2 Mile SSW
B8	12466	1/4 - 1/2 Mile SSW
B9	CADDW0000002579	1/4 - 1/2 Mile SW
C12	CADWR9000017522	1/4 - 1/2 Mile WNW
13	17577	1/4 - 1/2 Mile West
14	CADWR0000003662	1/2 - 1 Mile NE
15	CADDW0000001479	1/2 - 1 Mile NE
16	17576	1/2 - 1 Mile WSW
19	CADDW0000018923	1/2 - 1 Mile WSW
21	CADDW0000013084	1/2 - 1 Mile WSW
D23	CADDW0000003441	1/2 - 1 Mile WSW
24	CADWR9000017499	1/2 - 1 Mile West
D25	17578	1/2 - 1 Mile WSW

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

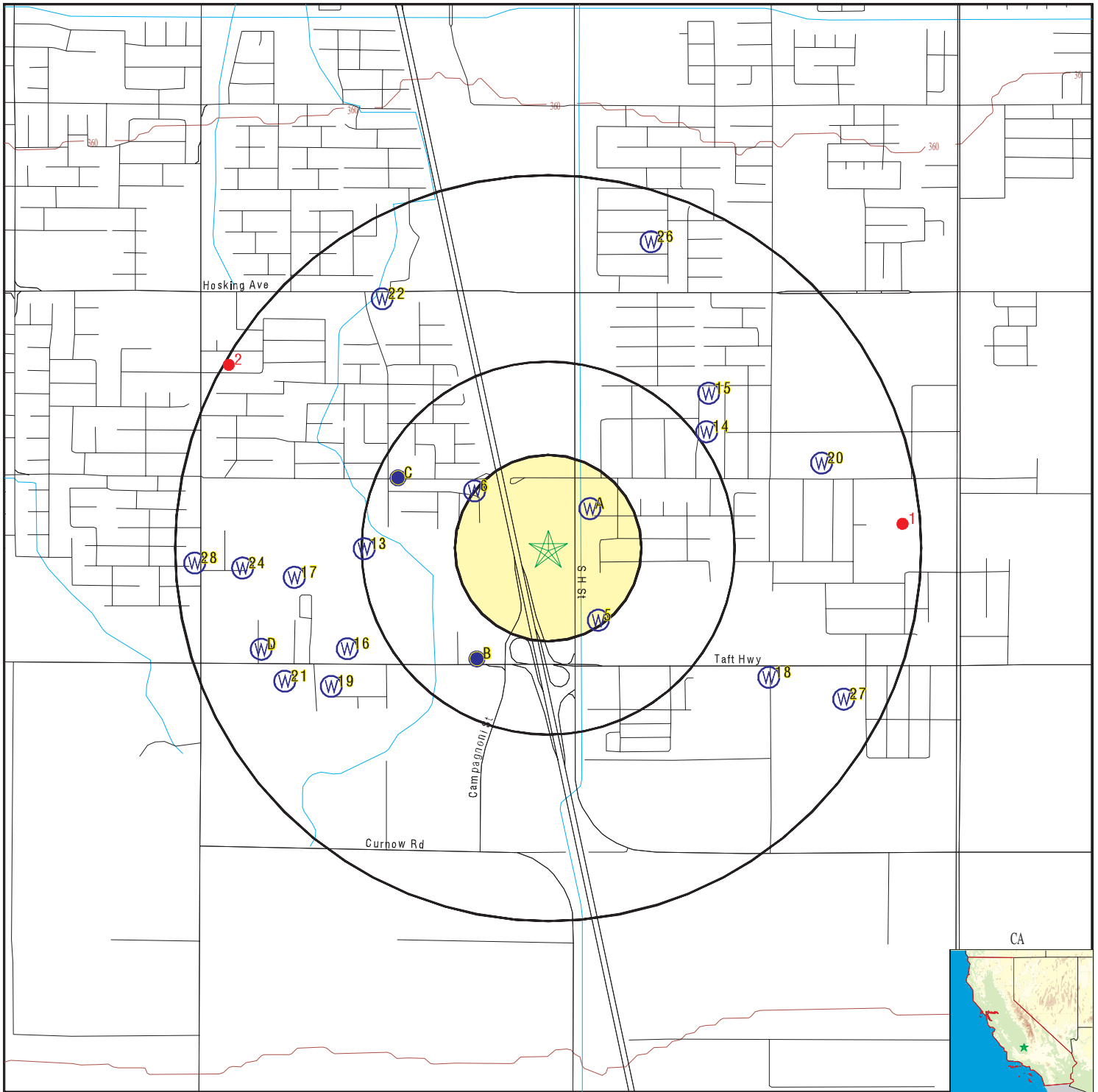
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
26	17637	1/2 - 1 Mile NNE
27	CADDW0000019966	1/2 - 1 Mile ESE

OTHER STATE DATABASE INFORMATION

STATE OIL/GAS WELL INFORMATION

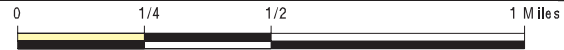
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
1	CAOG14000002930	1/2 - 1 Mile East
2	CAOG14000004169	1/2 - 1 Mile WNW

PHYSICAL SETTING SOURCE MAP - 6757422.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells



<p>SITE NAME: AREC - Vacant Land ADDRESS: 9407 South H Street Bakersfield CA 93307 LAT/LONG: 35.271376 / 119.022516</p>	<p>CLIENT: ATC Group Services LLC CONTACT: Robert Petrisko INQUIRY #: 6757422.2s DATE: November 19, 2021 9:37 am</p>
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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

A1
NE
1/8 - 1/4 Mile
Higher

CA WELLS CADDW0000020327

Well ID:	1510024-002	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	MCKEE WELL - RAW	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=1510024-002&store_num=		
GeoTracker Data:	Not Reported		

A2
NE
1/8 - 1/4 Mile
Higher

CA WELLS CAUSGSN00007998

Well ID:	USGS-351600119010001	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-351600119010001	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-351600119010001&store_num=		
GeoTracker Data:	Not Reported		

A3
NE
1/8 - 1/4 Mile
Higher

CA WELLS CAUSGS000000986

A4
NE
1/8 - 1/4 Mile
Higher

CA WELLS 17638

Seq:	17638	Prim sta c:	30S/28E-31M01 M
Frds no:	1510024002	County:	15
District:	12	User id:	CYA
System no:	1510024	Water type:	G
Source nam:	MCKEE WELL - TREATED	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	351622.0	Longitude:	1190109.0
Precision:	2	Status:	AT
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		
System no:	1510024	System nam:	Greenfield County Wd
Hqname:	Not Reported	Address:	551 TAFT HIGHWAY
City:	BAKERSFIELD	State:	CA
Zip:	93307	Zip ext:	Not Reported
Pop serv:	6000	Connection:	1061
Area serve:	SOUTH BAKERSFIELD		
Sample date:	03-JAN-18	Finding:	130.
Chemical:	ALKALINITY (TOTAL) AS CaCO3	Report units:	MG/L

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Dir:	0.		
Sample date:	03-JAN-18	Finding:	310.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dir:	0.		
Sample date:	03-JAN-18	Finding:	260.
Chemical:	IRON	Report units:	UG/L
Dir:	100.		
Sample date:	03-JAN-18	Finding:	110.
Chemical:	BARIUM	Report units:	UG/L
Dir:	100.		
Sample date:	03-JAN-18	Finding:	7.7
Chemical:	ARSENIC	Report units:	UG/L
Dir:	2.		
Sample date:	03-JAN-18	Finding:	0.2
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dir:	0.1		
Sample date:	03-JAN-18	Finding:	32.
Chemical:	SULFATE	Report units:	MG/L
Dir:	0.5		
Sample date:	03-JAN-18	Finding:	42.
Chemical:	CHLORIDE	Report units:	MG/L
Dir:	0.		
Sample date:	03-JAN-18	Finding:	2.4
Chemical:	POTASSIUM	Report units:	MG/L
Dir:	0.		
Sample date:	03-JAN-18	Finding:	37.
Chemical:	SODIUM	Report units:	MG/L
Dir:	0.		
Sample date:	03-JAN-18	Finding:	1.
Chemical:	COLOR	Report units:	UNITS
Dir:	0.		
Sample date:	03-JAN-18	Finding:	453.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dir:	0.		
Sample date:	03-JAN-18	Finding:	7.81
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dir:	0.		
Sample date:	03-JAN-18	Finding:	2.1
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dir:	0.1		
Sample date:	03-JAN-18	Finding:	160.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dir:	0.		
Sample date:	03-JAN-18	Finding:	3.2
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dir:	0.4		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample date:	03-JAN-18	Finding:	150.
Chemical:	HARDNESS (TOTAL) AS CaCO ₃	Report units:	MG/L
Dir:	0.		
Sample date:	03-JAN-18	Finding:	44.
Chemical:	CALCIUM	Report units:	MG/L
Dir:	0.		
Sample date:	03-JAN-18	Finding:	9.3
Chemical:	MAGNESIUM	Report units:	MG/L
Dir:	0.		
Sample date:	10-APR-17	Finding:	6.3
Chemical:	ARSENIC	Report units:	UG/L
Dir:	2.		
Sample date:	11-JAN-17	Finding:	3.1
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dir:	0.4		
Sample date:	10-JAN-17	Finding:	6.9
Chemical:	ARSENIC	Report units:	UG/L
Dir:	2.		
Sample date:	20-JUL-16	Finding:	8.3
Chemical:	ARSENIC	Report units:	UG/L
Dir:	2.		
Sample date:	14-APR-16	Finding:	7.
Chemical:	ARSENIC	Report units:	UG/L
Dir:	2.		
Sample date:	14-APR-16	Finding:	3.1
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dir:	0.4		
Sample date:	13-JAN-16	Finding:	6.7
Chemical:	ARSENIC	Report units:	UG/L
Dir:	2.		
Sample date:	12-OCT-15	Finding:	7.2
Chemical:	ARSENIC	Report units:	UG/L
Dir:	2.		
Sample date:	13-JUL-15	Finding:	6.8
Chemical:	ARSENIC	Report units:	UG/L
Dir:	2.		
Sample date:	07-APR-15	Finding:	6.6
Chemical:	ARSENIC	Report units:	UG/L
Dir:	2.		
Sample date:	13-JAN-15	Finding:	1.
Chemical:	COLOR	Report units:	UNITS
Dir:	0.		
Sample date:	13-JAN-15	Finding:	465.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dir:	0.		
Sample date:	13-JAN-15	Finding:	8.02
Chemical:	PH, LABORATORY	Report units:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Dir:	0.		
Sample date:	13-JAN-15	Finding:	120.
Chemical:	ALKALINITY (TOTAL) AS CaCO ₃	Report units:	MG/L
Dir:	0.		
Sample date:	13-JAN-15	Finding:	150.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dir:	0.		
Sample date:	13-JAN-15	Finding:	160.
Chemical:	HARDNESS (TOTAL) AS CaCO ₃	Report units:	MG/L
Dir:	0.		
Sample date:	13-JAN-15	Finding:	47.
Chemical:	CALCIUM	Report units:	MG/L
Dir:	0.		
Sample date:	13-JAN-15	Finding:	10.
Chemical:	MAGNESIUM	Report units:	MG/L
Dir:	0.		
Sample date:	13-JAN-15	Finding:	43.
Chemical:	SODIUM	Report units:	MG/L
Dir:	0.		
Sample date:	13-JAN-15	Finding:	2.7
Chemical:	POTASSIUM	Report units:	MG/L
Dir:	0.		
Sample date:	13-JAN-15	Finding:	45.
Chemical:	CHLORIDE	Report units:	MG/L
Dir:	0.		
Sample date:	13-JAN-15	Finding:	30.
Chemical:	SULFATE	Report units:	MG/L
Dir:	0.5		
Sample date:	13-JAN-15	Finding:	0.21
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dir:	0.1		
Sample date:	13-JAN-15	Finding:	7.5
Chemical:	ARSENIC	Report units:	UG/L
Dir:	2.		
Sample date:	13-JAN-15	Finding:	120.
Chemical:	BARIUM	Report units:	UG/L
Dir:	100.		
Sample date:	13-JAN-15	Finding:	2.6
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dir:	1.		
Sample date:	13-JAN-15	Finding:	59.
Chemical:	IRON	Report units:	UG/L
Dir:	100.		
Sample date:	13-JAN-15	Finding:	300.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dir:	0.		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample date:	13-JAN-15	Finding:	0.23
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dir:	0.1		
Sample date:	13-JAN-15	Finding:	3.86
Chemical:	GROSS ALPHA	Report units:	PCI/L
Dir:	3.		
Sample date:	13-JAN-15	Finding:	0.311
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dir:	0.		
Sample date:	13-JAN-15	Finding:	1.16
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dir:	0.		
Sample date:	09-SEP-14	Finding:	2.6
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dir:	1.		
Sample date:	17-JUL-14	Finding:	7.4
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dir:	2.		
Sample date:	12-MAY-14	Finding:	7.5
Chemical:	ARSENIC	Report units:	UG/L
Dir:	2.		
Sample date:	06-JAN-14	Finding:	7.
Chemical:	ARSENIC	Report units:	UG/L
Dir:	2.		
Sample date:	07-OCT-13	Finding:	8.5
Chemical:	ARSENIC	Report units:	UG/L
Dir:	2.		
Sample date:	09-JUL-13	Finding:	8.4
Chemical:	ARSENIC	Report units:	UG/L
Dir:	2.		
Sample date:	28-MAY-13	Finding:	23.
Chemical:	SILICA	Report units:	MG/L
Dir:	0.		
Sample date:	07-MAY-13	Finding:	7.8
Chemical:	ARSENIC	Report units:	UG/L
Dir:	2.		
Sample date:	07-AUG-12	Finding:	7.e-003
Chemical:	1,2,3-TRICHLOROPROPANE	Report units:	UG/L
Dir:	5.e-003		
Sample date:	04-JAN-12	Finding:	0.17
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dir:	0.1		
Sample date:	04-JAN-12	Finding:	7.5
Chemical:	ARSENIC	Report units:	UG/L
Dir:	2.		
Sample date:	04-JAN-12	Finding:	110.
Chemical:	BARIUM	Report units:	UG/L

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Dir:	100.		
Sample date:	04-JAN-12	Finding:	410.
Chemical:	IRON	Report units:	UG/L
Dir:	100.		
Sample date:	04-JAN-12	Finding:	270.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dir:	0.		
Sample date:	04-JAN-12	Finding:	1.4
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dir:	0.1		
Sample date:	04-JAN-12	Finding:	0.29
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dir:	0.		
Sample date:	04-JAN-12	Finding:	29.
Chemical:	SULFATE	Report units:	MG/L
Dir:	0.5		
Sample date:	04-JAN-12	Finding:	48.
Chemical:	CHLORIDE	Report units:	MG/L
Dir:	0.		
Sample date:	04-JAN-12	Finding:	2.7
Chemical:	POTASSIUM	Report units:	MG/L
Dir:	0.		
Sample date:	04-JAN-12	Finding:	41.
Chemical:	SODIUM	Report units:	MG/L
Dir:	0.		
Sample date:	04-JAN-12	Finding:	9.7
Chemical:	MAGNESIUM	Report units:	MG/L
Dir:	0.		
Sample date:	04-JAN-12	Finding:	45.
Chemical:	CALCIUM	Report units:	MG/L
Dir:	0.		
Sample date:	04-JAN-12	Finding:	150.
Chemical:	HARDNESS (TOTAL) AS CaCO ₃	Report units:	MG/L
Dir:	0.		
Sample date:	04-JAN-12	Finding:	140.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dir:	0.		
Sample date:	04-JAN-12	Finding:	120.
Chemical:	ALKALINITY (TOTAL) AS CaCO ₃	Report units:	MG/L
Dir:	0.		
Sample date:	04-JAN-12	Finding:	7.98
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dir:	0.		
Sample date:	04-JAN-12	Finding:	477.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dir:	0.		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample date:	04-JAN-12	Finding:	0.307
Chemical:	RADIUM 228 COUNTING ERROR	Report units:	PCI/L
Dir:	0.		
Sample date:	04-JAN-12	Finding:	1.
Chemical:	COLOR	Report units:	UNITS
Dir:	0.		

**5
SE
1/8 - 1/4 Mile
Lower**

CA WELLS 17620

Seq:	17620	Prim sta c:	30S/28E-18N02 M
Frds no:	1510003151	County:	15
District:	12	User id:	CYA
System no:	1510003	Water type:	G
Source nam:	WELL 185-01	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	351607.0	Longitude:	1190109.0
Precision:	2	Status:	AU
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

System no:	1510003	System nam:	California Water Service - Bakersfield
Hqname:	CALIFORNIA WTR SERV CO	Address:	P O BOX 1150
City:	SAN JOSE	State:	Not Reported
Zip:	95108	Zip ext:	Not Reported
Pop serv:	182670	Connection:	54393
Area serve:	BAKERSFIELD		

Sample date:	06-SEP-17	Finding:	2.952
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dir:	0.4		

Sample date:	20-JUN-16	Finding:	0.6
Chemical:	TOTAL TRIHALOMETHANES	Report units:	UG/L
Dir:	0.		

Sample date:	17-JUN-16	Finding:	4.3
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dir:	0.4		

Sample date:	17-JUN-16	Finding:	4.3
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dir:	0.4		

Sample date:	17-JUN-16	Finding:	11.8
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dir:	0.		

Sample date:	17-JUN-16	Finding:	0.25
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dir:	0.1		

Sample date:	17-JUN-16	Finding:	280.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dir:	0.		

Sample date:	17-JUN-16	Finding:	170.
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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Chemical: Dir:	BARIUM 100.	Report units:	UG/L
Sample date: Chemical: Dir:	17-JUN-16 ARSENIC 2.	Finding: Report units:	5.5 UG/L
Sample date: Chemical: Dir:	17-JUN-16 FLUORIDE (F) (NATURAL-SOURCE) 0.1	Finding: Report units:	5.4e-002 MG/L
Sample date: Chemical: Dir:	17-JUN-16 SULFATE 0.5	Finding: Report units:	38. MG/L
Sample date: Chemical: Dir:	17-JUN-16 CHLORIDE 0.	Finding: Report units:	30. MG/L
Sample date: Chemical: Dir:	17-JUN-16 POTASSIUM 0.	Finding: Report units:	2.8 MG/L
Sample date: Chemical: Dir:	17-JUN-16 SODIUM 0.	Finding: Report units:	35. MG/L
Sample date: Chemical: Dir:	17-JUN-16 MAGNESIUM 0.	Finding: Report units:	9.6 MG/L
Sample date: Chemical: Dir:	17-JUN-16 CALCIUM 0.	Finding: Report units:	44. MG/L
Sample date: Chemical: Dir:	17-JUN-16 HARDNESS (TOTAL) AS CaCO ₃ 0.	Finding: Report units:	150. MG/L
Sample date: Chemical: Dir:	17-JUN-16 BICARBONATE ALKALINITY 0.	Finding: Report units:	160. MG/L
Sample date: Chemical: Dir:	17-JUN-16 ALKALINITY (TOTAL) AS CaCO ₃ 0.	Finding: Report units:	130. MG/L
Sample date: Chemical: Dir:	17-JUN-16 COLOR 0.	Finding: Report units:	1. UNITS
Sample date: Chemical: Dir:	17-JUN-16 SPECIFIC CONDUCTANCE 0.	Finding: Report units:	458. US
Sample date: Chemical: Dir:	17-JUN-16 PH, LABORATORY 0.	Finding: Report units:	7.62 Not Reported
Sample date: Chemical: Dir:	22-JUN-15 SOURCE TEMPERATURE C 0.	Finding: Report units:	21.7 C

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample date:	22-JUN-15	Finding:	7.7
Chemical:	PH, FIELD	Report units:	Not Reported
Dir:	0.		
Sample date:	09-APR-15	Finding:	20.4
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dir:	0.		
Sample date:	09-APR-15	Finding:	7.93
Chemical:	PH, FIELD	Report units:	Not Reported
Dir:	0.		
Sample date:	07-APR-15	Finding:	7.8
Chemical:	PH, FIELD	Report units:	Not Reported
Dir:	0.		
Sample date:	07-APR-15	Finding:	19.6
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dir:	0.		
Sample date:	07-APR-15	Finding:	7.9
Chemical:	PH, FIELD	Report units:	Not Reported
Dir:	0.		
Sample date:	07-APR-15	Finding:	20.
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dir:	0.		
Sample date:	23-MAR-15	Finding:	8.
Chemical:	PH, FIELD	Report units:	Not Reported
Dir:	0.		
Sample date:	23-MAR-15	Finding:	18.7
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dir:	0.		
Sample date:	22-DEC-14	Finding:	8.1
Chemical:	PH, FIELD	Report units:	Not Reported
Dir:	0.		
Sample date:	22-DEC-14	Finding:	18.5
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dir:	0.		
Sample date:	18-DEC-14	Finding:	20.123
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dir:	2.		
Sample date:	29-SEP-14	Finding:	1.6
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dir:	1.		
Sample date:	22-SEP-14	Finding:	7.6
Chemical:	PH, FIELD	Report units:	Not Reported
Dir:	0.		
Sample date:	22-SEP-14	Finding:	0.59
Chemical:	TETRACHLOROETHYLENE	Report units:	UG/L
Dir:	0.5		
Sample date:	25-JUN-14	Finding:	0.61
Chemical:	TETRACHLOROETHYLENE	Report units:	UG/L

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Dir:	0.5		
Sample date:	23-JUN-14	Finding:	7.2
Chemical:	PH, FIELD	Report units:	Not Reported
Dir:	0.		
Sample date:	28-MAY-14	Finding:	21.1
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dir:	0.		
Sample date:	28-MAY-14	Finding:	7.9
Chemical:	PH, FIELD	Report units:	Not Reported
Dir:	0.		
Sample date:	24-MAR-14	Finding:	0.9
Chemical:	TOTAL TRIHALOMETHANES	Report units:	UG/L
Dir:	0.		
Sample date:	24-MAR-14	Finding:	22.395
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dir:	2.		
Sample date:	24-MAR-14	Finding:	8.3
Chemical:	PH, FIELD	Report units:	Not Reported
Dir:	0.		
Sample date:	24-MAR-14	Finding:	21.
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dir:	0.		
Sample date:	18-DEC-13	Finding:	0.7
Chemical:	TOTAL TRIHALOMETHANES	Report units:	UG/L
Dir:	0.		
Sample date:	16-DEC-13	Finding:	7.7
Chemical:	PH, FIELD	Report units:	Not Reported
Dir:	0.		
Sample date:	23-SEP-13	Finding:	7.6
Chemical:	PH, FIELD	Report units:	Not Reported
Dir:	0.		
Sample date:	20-SEP-13	Finding:	0.68
Chemical:	TETRACHLOROETHYLENE	Report units:	UG/L
Dir:	0.5		
Sample date:	16-SEP-13	Finding:	7.1
Chemical:	PH, FIELD	Report units:	Not Reported
Dir:	0.		
Sample date:	16-SEP-13	Finding:	21.
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dir:	0.		
Sample date:	24-JUN-13	Finding:	7.64
Chemical:	PH, FIELD	Report units:	Not Reported
Dir:	0.		
Sample date:	19-JUN-13	Finding:	0.85
Chemical:	TETRACHLOROETHYLENE	Report units:	UG/L
Dir:	0.5		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample date:	11-JUN-13	Finding:	120.
Chemical:	BARIUM	Report units:	UG/L
Dir:	100.		
Sample date:	11-JUN-13	Finding:	230.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dir:	0.		
Sample date:	11-JUN-13	Finding:	0.32
Chemical:	LANGELIER INDEX @ 60 C	Report units:	Not Reported
Dir:	0.		
Sample date:	11-JUN-13	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dir:	0.		
Sample date:	11-JUN-13	Finding:	5.9
Chemical:	ARSENIC	Report units:	UG/L
Dir:	2.		
Sample date:	11-JUN-13	Finding:	0.14
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dir:	0.1		
Sample date:	11-JUN-13	Finding:	30.
Chemical:	SULFATE	Report units:	MG/L
Dir:	0.5		
Sample date:	11-JUN-13	Finding:	18.
Chemical:	CHLORIDE	Report units:	MG/L
Dir:	0.		
Sample date:	11-JUN-13	Finding:	2.7
Chemical:	POTASSIUM	Report units:	MG/L
Dir:	0.		
Sample date:	11-JUN-13	Finding:	6.4
Chemical:	MAGNESIUM	Report units:	MG/L
Dir:	0.		
Sample date:	11-JUN-13	Finding:	36.
Chemical:	CALCIUM	Report units:	MG/L
Dir:	0.		
Sample date:	11-JUN-13	Finding:	110.
Chemical:	HARDNESS (TOTAL) AS CaCO3	Report units:	MG/L
Dir:	0.		
Sample date:	11-JUN-13	Finding:	120.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dir:	0.		
Sample date:	11-JUN-13	Finding:	97.
Chemical:	ALKALINITY (TOTAL) AS CaCO3	Report units:	MG/L
Dir:	0.		
Sample date:	11-JUN-13	Finding:	8.3
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dir:	0.		
Sample date:	11-JUN-13	Finding:	350.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Dir:	0.		
Sample date:	11-JUN-13	Finding:	0.85
Chemical:	RADIUM 228 MDA95	Report units:	PCI/L
Dir:	0.		
Sample date:	11-JUN-13	Finding:	3.
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dir:	0.		
Sample date:	11-JUN-13	Finding:	2.2
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dir:	0.		
Sample date:	11-JUN-13	Finding:	1.775
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dir:	1.		
Sample date:	11-JUN-13	Finding:	6.78
Chemical:	PH, FIELD	Report units:	Not Reported
Dir:	0.		
Sample date:	11-JUN-13	Finding:	22.
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dir:	0.		
Sample date:	11-JUN-13	Finding:	0.38
Chemical:	TOTAL ORGANIC CARBON (TOC)	Report units:	MG/L
Dir:	0.3		
Sample date:	11-JUN-13	Finding:	29.
Chemical:	SODIUM	Report units:	MG/L
Dir:	0.		
Sample date:	03-APR-13	Finding:	20.
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dir:	0.		
Sample date:	03-APR-13	Finding:	6.86
Chemical:	PH, FIELD	Report units:	Not Reported
Dir:	0.		
Sample date:	25-MAR-13	Finding:	6.85
Chemical:	PH, FIELD	Report units:	Not Reported
Dir:	0.		
Sample date:	27-DEC-12	Finding:	7.71
Chemical:	PH, FIELD	Report units:	Not Reported
Dir:	0.		
Sample date:	24-SEP-12	Finding:	22.3
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dir:	0.		
Sample date:	24-SEP-12	Finding:	7.73
Chemical:	PH, FIELD	Report units:	Not Reported
Dir:	0.		
Sample date:	24-SEP-12	Finding:	1.16
Chemical:	TETRACHLOROETHYLENE	Report units:	UG/L
Dir:	0.5		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample date:	25-JUN-12	Finding:	7.67
Chemical:	PH, FIELD	Report units:	Not Reported
Dir:	0.		
Sample date:	19-JUN-12	Finding:	1.28
Chemical:	TETRACHLOROETHYLENE	Report units:	UG/L
Dir:	0.5		
Sample date:	11-JUN-12	Finding:	7.76
Chemical:	PH, FIELD	Report units:	Not Reported
Dir:	0.		
Sample date:	11-JUN-12	Finding:	21.3
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dir:	0.		
Sample date:	28-MAR-12	Finding:	7.82
Chemical:	PH, FIELD	Report units:	Not Reported
Dir:	0.		

**6
NW
1/8 - 1/4 Mile
Higher**

CA WELLS CADWR9000017517

State Well #:	30S27E36J001M	Station ID:	22991
Well Name:	Not Reported	Basin Name:	Kern County
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

**B7
SSW
1/4 - 1/2 Mile
Lower**

CA WELLS 17623

Seq:	17623	Prim sta c:	30S/28E-19R01 M
Frds no:	1502001001	County:	15
District:	12	User id:	CYA
System no:	1502001	Water type:	G
Source nam:	WELL 01	Station ty:	WELL/AMBNT
Latitude:	351602.2	Longitude:	1190128.7
Precision:	2	Status:	AU
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		
System no:	1502001	System nam:	Beacon Bar And Liquors
Hqname:	Not Reported	Address:	6495 S. UNION AVE.
City:	BAKERSFIELD	State:	CA
Zip:	93307	Zip ext:	Not Reported
Pop serv:	750	Connection:	3
Area serve:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

B8
SSW
1/4 - 1/2 Mile
Lower

CA WELLS 12466

Seq:	12466	Prim sta c:	1503091-001
Frds no:	1503091001	County:	15
District:	12	User id:	CYA
System no:	1503091	Water type:	G
Source nam:	WELL 01 - TREATED	Station ty:	WELL/AMBNT
Latitude:	351602.5	Longitude:	1190129.2
Precision:	2	Status:	AT
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		
System no:	1503091	System nam:	Johnny Quik Store #143
Hqname:	Not Reported	Address:	2126 TAFT HIGHWAY @ HWY 99
City:	BAKERSFIELD	State:	CA
Zip:	93310	Zip ext:	Not Reported
Pop serv:	150	Connection:	1
Area serve:	Not Reported		

B9
SW
1/4 - 1/2 Mile
Lower

CA WELLS CADDW0000002579

Well ID:	1503091-001	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 01 - DESTROYED	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=1503091-001&store_num=		
GeoTracker Data:	Not Reported		

B10
SW
1/4 - 1/2 Mile
Lower

FED USGS USGS40000162032

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	031S027E01A001M	Type:	Well
Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:	1	Level reading date:	1961-02-21
Feet below surface:	67.00	Feet to sea level:	Not Reported
Note:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

C11
WNW
1/4 - 1/2 Mile
Higher

FED USGS USGS40000162133

Organization ID:	USGS-CA	Type:	Well
Organization Name:	USGS California Water Science Center	HUC:	18030012
Monitor Location:	030S027E36K002M	Drainage Area Units:	Not Reported
Description:	Not Reported	Contrib Drainage Area Units:	Not Reported
Drainage Area:	Not Reported	Aquifer Type:	Not Reported
Contrib Drainage Area:	Not Reported	Well Depth:	Not Reported
Aquifer:	Central Valley aquifer system	Well Hole Depth:	Not Reported
Formation Type:	Not Reported		
Construction Date:	Not Reported		
Well Depth Units:	Not Reported		
Well Hole Depth Units:	Not Reported		

Ground water levels, Number of Measurements:	1	Level reading date:	1961-02-03
Feet below surface:	66.00	Feet to sea level:	Not Reported
Note:	Not Reported		

C12
WNW
1/4 - 1/2 Mile
Higher

CA WELLS CADWR9000017522

State Well #:	30S27E36K002M	Station ID:	35343
Well Name:	Not Reported	Basin Name:	Kern County
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

13
West
1/4 - 1/2 Mile
Higher

CA WELLS 17577

Seq:	17577	Prim sta c:	30S/27E-36L03 M
Frds no:	1510003163	County:	15
District:	12	User id:	CYA
System no:	1510003	Water type:	G
Source nam:	WELL 199-01	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	351617.0	Longitude:	1190149.0
Precision:	3	Status:	AU
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

System no:	1510003	System nam:	California Water Service - Bakersfield
Hqname:	CALIFORNIA WTR SERV CO	Address:	P O BOX 1150
City:	SAN JOSE	State:	Not Reported
Zip:	95108	Zip ext:	Not Reported
Pop serv:	182670	Connection:	54393
Area serve:	BAKERSFIELD		

Sample date:	09-DEC-15	Finding:	2.1
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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Chemical: Dir:	NITRATE (AS N) 0.4	Report units:	MG/L
Sample date: Chemical: Dir:	09-DEC-15 GROSS ALPHA COUNTING ERROR 0.	Finding: Report units:	3. PCI/L
Sample date: Chemical: Dir:	09-DEC-15 PH, FIELD 0.	Finding: Report units:	7.4 Not Reported
Sample date: Chemical: Dir:	09-DEC-15 SOURCE TEMPERATURE C 0.	Finding: Report units:	20. C
Sample date: Chemical: Dir:	09-DEC-15 AGGRSSIVE INDEX (CORROSIVITY) 0.	Finding: Report units:	12.1 Not Reported
Sample date: Chemical: Dir:	09-DEC-15 TURBIDITY, LABORATORY 0.1	Finding: Report units:	1.5 NTU
Sample date: Chemical: Dir:	09-DEC-15 LANGELIER INDEX @ 60 C 0.	Finding: Report units:	0.19 Not Reported
Sample date: Chemical: Dir:	09-DEC-15 TOTAL DISSOLVED SOLIDS 0.	Finding: Report units:	240. MG/L
Sample date: Chemical: Dir:	09-DEC-15 IRON 100.	Finding: Report units:	370. UG/L
Sample date: Chemical: Dir:	09-DEC-15 CHROMIUM, HEXAVALENT 1.	Finding: Report units:	2.4 UG/L
Sample date: Chemical: Dir:	09-DEC-15 BARIUM 100.	Finding: Report units:	48. UG/L
Sample date: Chemical: Dir:	09-DEC-15 SOURCE TEMPERATURE C 0.	Finding: Report units:	18. C
Sample date: Chemical: Dir:	09-DEC-15 PH, FIELD 0.	Finding: Report units:	7.4 Not Reported
Sample date: Chemical: Dir:	09-DEC-15 COLOR 0.	Finding: Report units:	1. UNITS
Sample date: Chemical: Dir:	09-DEC-15 SPECIFIC CONDUCTANCE 0.	Finding: Report units:	339. US
Sample date: Chemical: Dir:	09-DEC-15 PH, LABORATORY 0.	Finding: Report units:	8.05 Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample date:	09-DEC-15	Finding:	140.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dir:	0.		
Sample date:	09-DEC-15	Finding:	3.
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dir:	0.		
Sample date:	09-DEC-15	Finding:	37.
Chemical:	CALCIUM	Report units:	MG/L
Dir:	0.		
Sample date:	09-DEC-15	Finding:	5.7
Chemical:	MAGNESIUM	Report units:	MG/L
Dir:	0.		
Sample date:	09-DEC-15	Finding:	28.
Chemical:	SODIUM	Report units:	MG/L
Dir:	0.		
Sample date:	09-DEC-15	Finding:	2.5
Chemical:	POTASSIUM	Report units:	MG/L
Dir:	0.		
Sample date:	09-DEC-15	Finding:	11.
Chemical:	CHLORIDE	Report units:	MG/L
Dir:	0.		
Sample date:	09-DEC-15	Finding:	23.
Chemical:	SULFATE	Report units:	MG/L
Dir:	0.5		
Sample date:	09-DEC-15	Finding:	0.17
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dir:	0.1		
Sample date:	09-DEC-15	Finding:	7.
Chemical:	ARSENIC	Report units:	UG/L
Dir:	2.		
Sample date:	17-DEC-14	Finding:	7.9
Chemical:	PH, FIELD	Report units:	Not Reported
Dir:	0.		
Sample date:	17-DEC-14	Finding:	20.1
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dir:	0.		
Sample date:	12-DEC-14	Finding:	2.2
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dir:	1.		
Sample date:	08-DEC-14	Finding:	7.665
Chemical:	ARSENIC	Report units:	UG/L
Dir:	2.		
Sample date:	08-DEC-14	Finding:	4.231
Chemical:	MANGANESE	Report units:	UG/L
Dir:	20.		
Sample date:	08-DEC-14	Finding:	2.e-003
Chemical:	BERYLLIUM	Report units:	UG/L

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Dir:	1.		
Sample date:	08-DEC-14	Finding:	37.572
Chemical:	BARIUM	Report units:	UG/L
Dir:	100.		
Sample date:	08-DEC-14	Finding:	5.661
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dir:	1.		
Sample date:	18-JUN-14	Finding:	22.5
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dir:	0.		
Sample date:	18-JUN-14	Finding:	8.2
Chemical:	PH, FIELD	Report units:	Not Reported
Dir:	0.		
Sample date:	18-JUN-14	Finding:	7.1
Chemical:	ARSENIC	Report units:	UG/L
Dir:	2.		
Sample date:	18-JUN-14	Finding:	33.251
Chemical:	BARIUM	Report units:	UG/L
Dir:	100.		
Sample date:	18-JUN-14	Finding:	2.671
Chemical:	CHROMIUM (TOTAL)	Report units:	UG/L
Dir:	10.		
Sample date:	18-JUN-14	Finding:	6.3e-002
Chemical:	LEAD	Report units:	UG/L
Dir:	5.		
Sample date:	18-JUN-14	Finding:	3.e-003
Chemical:	THALLIUM	Report units:	UG/L
Dir:	1.		
Sample date:	18-JUN-14	Finding:	4.922
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dir:	1.		
Sample date:	18-JUN-14	Finding:	8.69
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dir:	2.		
Sample date:	10-JUN-14	Finding:	7.1
Chemical:	PH, FIELD	Report units:	Not Reported
Dir:	0.		
Sample date:	24-MAR-14	Finding:	7.4
Chemical:	PH, FIELD	Report units:	Not Reported
Dir:	0.		
Sample date:	24-MAR-14	Finding:	21.
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dir:	0.		
Sample date:	24-MAR-14	Finding:	7.4
Chemical:	PH, FIELD	Report units:	Not Reported
Dir:	0.		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample date:	24-MAR-14	Finding:	7.944
Chemical:	ARSENIC	Report units:	UG/L
Dir:	2.		
Sample date:	16-DEC-13	Finding:	8.1
Chemical:	PH, FIELD	Report units:	Not Reported
Dir:	0.		
Sample date:	13-NOV-13	Finding:	9.525
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dir:	2.		
Sample date:	13-NOV-13	Finding:	7.785
Chemical:	ARSENIC	Report units:	UG/L
Dir:	2.		
Sample date:	15-OCT-13	Finding:	7.92
Chemical:	PH, FIELD	Report units:	Not Reported
Dir:	0.		
Sample date:	17-DEC-12	Finding:	7.81
Chemical:	PH, FIELD	Report units:	Not Reported
Dir:	0.		
Sample date:	29-NOV-12	Finding:	6.84
Chemical:	PH, FIELD	Report units:	Not Reported
Dir:	0.		
Sample date:	29-NOV-12	Finding:	6.77
Chemical:	ARSENIC	Report units:	UG/L
Dir:	2.		
Sample date:	27-SEP-12	Finding:	7.21
Chemical:	PH, FIELD	Report units:	Not Reported
Dir:	0.		
Sample date:	24-JUL-12	Finding:	200.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dir:	0.		
Sample date:	24-JUL-12	Finding:	8.4
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dir:	2.		
Sample date:	24-JUL-12	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dir:	0.		
Sample date:	24-JUL-12	Finding:	7.
Chemical:	ARSENIC	Report units:	UG/L
Dir:	2.		
Sample date:	24-JUL-12	Finding:	6.9
Chemical:	ARSENIC	Report units:	UG/L
Dir:	2.		
Sample date:	24-JUL-12	Finding:	0.23
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dir:	0.1		
Sample date:	24-JUL-12	Finding:	26.
Chemical:	SULFATE	Report units:	MG/L

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Dir:	0.5		
Sample date:	24-JUL-12	Finding:	12.
Chemical:	CHLORIDE	Report units:	MG/L
Dir:	0.		
Sample date:	24-JUL-12	Finding:	2.2
Chemical:	POTASSIUM	Report units:	MG/L
Dir:	0.		
Sample date:	24-JUL-12	Finding:	25.
Chemical:	SODIUM	Report units:	MG/L
Dir:	0.		
Sample date:	24-JUL-12	Finding:	4.9
Chemical:	MAGNESIUM	Report units:	MG/L
Dir:	0.		
Sample date:	24-JUL-12	Finding:	34.
Chemical:	CALCIUM	Report units:	MG/L
Dir:	0.		
Sample date:	24-JUL-12	Finding:	100.
Chemical:	HARDNESS (TOTAL) AS CaCO3	Report units:	MG/L
Dir:	0.		
Sample date:	24-JUL-12	Finding:	140.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dir:	0.		
Sample date:	24-JUL-12	Finding:	120.
Chemical:	ALKALINITY (TOTAL) AS CaCO3	Report units:	MG/L
Dir:	0.		
Sample date:	24-JUL-12	Finding:	8.3
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dir:	0.		
Sample date:	24-JUL-12	Finding:	320.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dir:	0.		
Sample date:	24-JUL-12	Finding:	0.39
Chemical:	LANGELIER INDEX @ 60 C	Report units:	Not Reported
Dir:	0.		
Sample date:	29-JUN-12	Finding:	7.6
Chemical:	PH, FIELD	Report units:	Not Reported
Dir:	0.		
Sample date:	22-MAR-12	Finding:	7.72
Chemical:	PH, FIELD	Report units:	Not Reported
Dir:	0.		

**14
NE
1/2 - 1 Mile
Higher**

CA WELLS CADWR0000003662

Well ID: 30S28E31F001M
Source: Department of Water Resources

Well Type: UNK

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Other Name:	30S28E31F001M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=30S28E31F001M&store_num=		
GeoTracker Data:	Not Reported		

**15
NE
1/2 - 1 Mile
Higher**

CA WELLS CADDW0000001479

Well ID:	1510024-001	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	DUBLIN WELL - RAW		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=1510024-001&store_num=		
GeoTracker Data:	Not Reported		

**16
WSW
1/2 - 1 Mile
Higher**

CA WELLS 17576

Seq:	17576	Prim sta c:	30S/27E-36F01 M
Frds no:	1500456001	County:	15
District:	45	User id:	15C
System no:	1500456	Water type:	G
Source nam:	SOUTH WELL 01	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	351603.0	Longitude:	1190152.0
Precision:	4	Status:	AR
Comment 1:	THIS WELL IS LOCATED .3 M EAST OF WIBLE ROAD AND .15 M NORTH OF TAFT-		
Comment 2:	Not Reported	Comment 3:	Not Reported
Comment 4:	Not Reported	Comment 5:	Not Reported
Comment 6:	Not Reported	Comment 7:	Not Reported
System no:	1500456	System nam:	Palm Vista Mobilehome Park
Hqname:	Not Reported	Address:	Not Reported
City:	Not Reported	State:	Not Reported
Zip:	Not Reported	Zip ext:	Not Reported
Pop serv:	0	Connection:	0
Area serve:	Not Reported		

**17
West
1/2 - 1 Mile
Higher**

FED USGS USGS40000162091

Organization ID:	USGS-CA	Type:	Well
Organization Name:	USGS California Water Science Center		
Monitor Location:	030S027E36P001M	HUC:	18030012
Description:	Not Reported	Drainage Area Units:	Not Reported
Drainage Area:	Not Reported	Contrib Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported		
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	1951	Well Depth:	150
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

18
ESE
1/2 - 1 Mile
Lower

FED USGS USGS40000162024

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	031S028E06B001M	Type:	Well
Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	1951	Well Depth:	310
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

19
WSW
1/2 - 1 Mile
Lower

CA WELLS CADDW0000018923

Well ID:	1510003-164	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 200-01 - RAW INAC-2018		
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=1510003-164&store_num=		
GeoTracker Data:	Not Reported		

20
ENE
1/2 - 1 Mile
Higher

FED USGS USGS40000162144

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	030S028E31G001M	Type:	Well
Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	1952	Well Depth:	118
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:	1	Level reading date:	1961-02-10
Feet below surface:	62.00	Feet to sea level:	Not Reported
Note:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

21
WSW
1/2 - 1 Mile
Lower

CA WELLS CADDW0000013084

Well ID:	1510003-163	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 199-01 - RAW INAC-2018		
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=1510003-163&store_num=		
GeoTracker Data:	Not Reported		

22
NNW
1/2 - 1 Mile
Higher

FED USGS USGS40000162206

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	030S027E36B001M	Type:	Well
Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	198
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:	1	Level reading date:	1960-10-19
Feet below surface:	76.00	Feet to sea level:	Not Reported
Note:	Not Reported		

D23
WSW
1/2 - 1 Mile
Lower

CA WELLS CADDW0000003441

Well ID:	1510003-162	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 198-01 - INAC_2017	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=1510003-162&store_num=		
GeoTracker Data:	Not Reported		

24
West
1/2 - 1 Mile
Higher

CA WELLS CADWR9000017499

State Well #:	30S27E36M001M	Station ID:	39388
Well Name:	Not Reported	Basin Name:	Kern County
Well Use:	Unknown	Well Type:	Unknown

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Well Depth: 0 Well Completion Rpt #: Not Reported

**D25
WSW
1/2 - 1 Mile
Lower**

CA WELLS 17578

Seq:	17578	Prim sta c:	30S/27E-36N02 M
Frds no:	1510003162	County:	15
District:	12	User id:	CYA
System no:	1510003	Water type:	G
Source nam:	WELL 198-01 (DGM)	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	351602.0	Longitude:	1190207.0
Precision:	4	Status:	AU
Comment 1:	THIS WELL IS LOCATED .01 M EAST OF CERRO DRIVE AND .01 M NORTH OF TAFT		
Comment 2:	Not Reported	Comment 3:	Not Reported
Comment 4:	FORMERLY CCW - 15-0505 DGM WATER CO. WELL 01		
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

System no:	1510003	System nam:	California Water Service - Bakersfield
Hqname:	CALIFORNIA WTR SERV CO	Address:	P O BOX 1150
City:	SAN JOSE	State:	Not Reported
Zip:	95108	Zip ext:	Not Reported
Pop serv:	182670	Connection:	54393
Area serve:	BAKERSFIELD		

Sample date:	04-JUN-14	Finding:	7.
Chemical:	PH, FIELD	Report units:	Not Reported
Dir:	0.		

Sample date:	04-JUN-14	Finding:	26.
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dir:	0.		

Sample date:	04-JUN-14	Finding:	7.
Chemical:	PH, FIELD	Report units:	Not Reported
Dir:	0.		

Sample date:	12-MAR-14	Finding:	7.2
Chemical:	PH, FIELD	Report units:	Not Reported
Dir:	0.		

Sample date:	12-MAR-14	Finding:	24.2
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dir:	0.		

Sample date:	12-MAR-14	Finding:	7.2
Chemical:	PH, FIELD	Report units:	Not Reported
Dir:	0.		

Sample date:	04-DEC-13	Finding:	7.5
Chemical:	PH, FIELD	Report units:	Not Reported
Dir:	0.		

Sample date:	09-SEP-13	Finding:	22.
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dir:	0.		

Sample date:	12-JUN-13	Finding:	21.
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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Chemical: Dir:	SOURCE TEMPERATURE C 0.	Report units:	C
Sample date: Chemical: Dir:	12-DEC-12 SOURCE TEMPERATURE C 0.	Finding: Report units:	21. C
Sample date: Chemical: Dir:	03-DEC-12 PH, FIELD 0.	Finding: Report units:	7.64 Not Reported
Sample date: Chemical: Dir:	24-SEP-12 SOURCE TEMPERATURE C 0.	Finding: Report units:	25.3 C
Sample date: Chemical: Dir:	24-SEP-12 PH, FIELD 0.	Finding: Report units:	7.18 Not Reported
Sample date: Chemical: Dir:	05-SEP-12 PH, FIELD 0.	Finding: Report units:	7.37 Not Reported
Sample date: Chemical: Dir:	13-JUN-12 AGGRSSIVE INDEX (CORROSIVITY) 0.	Finding: Report units:	12. Not Reported
Sample date: Chemical: Dir:	13-JUN-12 TOTAL DISSOLVED SOLIDS 0.	Finding: Report units:	250. MG/L
Sample date: Chemical: Dir:	13-JUN-12 ARSENIC 2.	Finding: Report units:	2.1 UG/L
Sample date: Chemical: Dir:	13-JUN-12 FLUORIDE (F) (NATURAL-SOURCE) 0.1	Finding: Report units:	0.18 MG/L
Sample date: Chemical: Dir:	13-JUN-12 SULFATE 0.5	Finding: Report units:	33. MG/L
Sample date: Chemical: Dir:	13-JUN-12 CHLORIDE 0.	Finding: Report units:	14. MG/L
Sample date: Chemical: Dir:	13-JUN-12 SODIUM 0.	Finding: Report units:	26. MG/L
Sample date: Chemical: Dir:	13-JUN-12 MAGNESIUM 0.	Finding: Report units:	6.5 MG/L
Sample date: Chemical: Dir:	13-JUN-12 CALCIUM 0.	Finding: Report units:	44. MG/L
Sample date: Chemical: Dir:	13-JUN-12 HARDNESS (TOTAL) AS CaCO3 0.	Finding: Report units:	140. MG/L

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample date:	13-JUN-12	Finding:	160.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dir:	0.		
Sample date:	13-JUN-12	Finding:	130.
Chemical:	ALKALINITY (TOTAL) AS CaCO3	Report units:	MG/L
Dir:	0.		
Sample date:	13-JUN-12	Finding:	8.2
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dir:	0.		
Sample date:	13-JUN-12	Finding:	390.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dir:	0.		
Sample date:	13-JUN-12	Finding:	0.54
Chemical:	RADIUM 228 MDA95	Report units:	PCI/L
Dir:	0.		
Sample date:	13-JUN-12	Finding:	3.
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dir:	0.		
Sample date:	13-JUN-12	Finding:	0.25
Chemical:	RADIUM 228 COUNTING ERROR	Report units:	PCI/L
Dir:	0.		
Sample date:	13-JUN-12	Finding:	3.2
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dir:	0.		
Sample date:	13-JUN-12	Finding:	0.82
Chemical:	TOTAL ORGANIC CARBON (TOC)	Report units:	MG/L
Dir:	0.3		
Sample date:	13-JUN-12	Finding:	9.
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dir:	1.		
Sample date:	13-JUN-12	Finding:	0.43
Chemical:	LANGELIER INDEX @ 60 C	Report units:	Not Reported
Dir:	0.		
Sample date:	11-JUN-12	Finding:	7.53
Chemical:	PH, FIELD	Report units:	Not Reported
Dir:	0.		
Sample date:	07-MAR-12	Finding:	7.59
Chemical:	PH, FIELD	Report units:	Not Reported
Dir:	0.		

**26
NNE
1/2 - 1 Mile
Higher**

CA WELLS 17637

Seq:	17637	Prim sta c:	30S/28E-31F01 M
Frds no:	1510024001	County:	15
District:	12	User id:	CYA
System no:	1510024	Water type:	G

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Source nam:	DUBLIN WELL - TREATED	Station ty:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Latitude:	351700.0	Longitude:	1190100.0
Precision:	8	Status:	AT
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		
System no:	1510024	System nam:	Greenfield County Wd
Hqname:	Not Reported	Address:	551 TAFT HIGHWAY
City:	BAKERSFIELD	State:	CA
Zip:	93307	Zip ext:	Not Reported
Pop serv:	6000	Connection:	1061
Area serve:	SOUTH BAKERSFIELD		
Sample date:	03-JAN-18	Finding:	360.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dir:	0.		
Sample date:	03-JAN-18	Finding:	4.2
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dir:	0.1		
Sample date:	03-JAN-18	Finding:	2.
Chemical:	COLOR	Report units:	UNITS
Dir:	0.		
Sample date:	03-JAN-18	Finding:	515.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dir:	0.		
Sample date:	03-JAN-18	Finding:	7.96
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dir:	0.		
Sample date:	03-JAN-18	Finding:	150.
Chemical:	ALKALINITY (TOTAL) AS CaCO3	Report units:	MG/L
Dir:	0.		
Sample date:	03-JAN-18	Finding:	190.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dir:	0.		
Sample date:	03-JAN-18	Finding:	5.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dir:	0.4		
Sample date:	03-JAN-18	Finding:	180.
Chemical:	HARDNESS (TOTAL) AS CaCO3	Report units:	MG/L
Dir:	0.		
Sample date:	03-JAN-18	Finding:	52.
Chemical:	CALCIUM	Report units:	MG/L
Dir:	0.		
Sample date:	03-JAN-18	Finding:	12.
Chemical:	MAGNESIUM	Report units:	MG/L
Dir:	0.		
Sample date:	03-JAN-18	Finding:	41.
Chemical:	SODIUM	Report units:	MG/L
Dir:	0.		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample date:	03-JAN-18	Finding:	3.
Chemical:	POTASSIUM	Report units:	MG/L
Dir:	0.		
Sample date:	03-JAN-18	Finding:	38.
Chemical:	CHLORIDE	Report units:	MG/L
Dir:	0.		
Sample date:	03-JAN-18	Finding:	45.
Chemical:	SULFATE	Report units:	MG/L
Dir:	0.5		
Sample date:	03-JAN-18	Finding:	0.19
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dir:	0.1		
Sample date:	03-JAN-18	Finding:	5.7
Chemical:	ARSENIC	Report units:	UG/L
Dir:	2.		
Sample date:	03-JAN-18	Finding:	120.
Chemical:	BARIUM	Report units:	UG/L
Dir:	100.		
Sample date:	12-APR-17	Finding:	6.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dir:	0.4		
Sample date:	10-APR-17	Finding:	4.8
Chemical:	ARSENIC	Report units:	UG/L
Dir:	2.		
Sample date:	10-JAN-17	Finding:	5.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dir:	0.4		
Sample date:	10-JAN-17	Finding:	6.
Chemical:	ARSENIC	Report units:	UG/L
Dir:	2.		
Sample date:	20-JUL-16	Finding:	5.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dir:	0.4		
Sample date:	20-JUL-16	Finding:	6.
Chemical:	ARSENIC	Report units:	UG/L
Dir:	2.		
Sample date:	14-APR-16	Finding:	5.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dir:	0.4		
Sample date:	14-APR-16	Finding:	5.4
Chemical:	ARSENIC	Report units:	UG/L
Dir:	2.		
Sample date:	13-JAN-16	Finding:	6.2
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dir:	0.4		
Sample date:	13-JAN-16	Finding:	6.3
Chemical:	ARSENIC	Report units:	UG/L

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Dir:	2.		
Sample date:	12-OCT-15	Finding:	5.7
Chemical:	ARSENIC	Report units:	UG/L
Dir:	2.		
Sample date:	12-OCT-15	Finding:	27.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dir:	2.		
Sample date:	13-JUL-15	Finding:	26.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dir:	2.		
Sample date:	13-JUL-15	Finding:	5.9
Chemical:	ARSENIC	Report units:	UG/L
Dir:	2.		
Sample date:	07-APR-15	Finding:	27.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dir:	2.		
Sample date:	07-APR-15	Finding:	5.7
Chemical:	ARSENIC	Report units:	UG/L
Dir:	2.		
Sample date:	13-JAN-15	Finding:	12.
Chemical:	MAGNESIUM	Report units:	MG/L
Dir:	0.		
Sample date:	13-JAN-15	Finding:	43.
Chemical:	SODIUM	Report units:	MG/L
Dir:	0.		
Sample date:	13-JAN-15	Finding:	3.1
Chemical:	POTASSIUM	Report units:	MG/L
Dir:	0.		
Sample date:	13-JAN-15	Finding:	40.
Chemical:	CHLORIDE	Report units:	MG/L
Dir:	0.		
Sample date:	13-JAN-15	Finding:	44.
Chemical:	SULFATE	Report units:	MG/L
Dir:	0.5		
Sample date:	13-JAN-15	Finding:	0.2
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dir:	0.1		
Sample date:	13-JAN-15	Finding:	5.7
Chemical:	ARSENIC	Report units:	UG/L
Dir:	2.		
Sample date:	13-JAN-15	Finding:	130.
Chemical:	BARIUM	Report units:	UG/L
Dir:	100.		
Sample date:	13-JAN-15	Finding:	4.7
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dir:	1.		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample date:	13-JAN-15	Finding:	63.
Chemical:	IRON	Report units:	UG/L
Dir:	100.		
Sample date:	13-JAN-15	Finding:	360.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dir:	0.		
Sample date:	13-JAN-15	Finding:	26.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dir:	2.		
Sample date:	13-JAN-15	Finding:	0.42
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dir:	0.1		
Sample date:	13-JAN-15	Finding:	0.246
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dir:	0.		
Sample date:	13-JAN-15	Finding:	1.16
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dir:	0.		
Sample date:	13-JAN-15	Finding:	50.
Chemical:	CALCIUM	Report units:	MG/L
Dir:	0.		
Sample date:	13-JAN-15	Finding:	170.
Chemical:	HARDNESS (TOTAL) AS CaCO3	Report units:	MG/L
Dir:	0.		
Sample date:	13-JAN-15	Finding:	180.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dir:	0.		
Sample date:	13-JAN-15	Finding:	140.
Chemical:	ALKALINITY (TOTAL) AS CaCO3	Report units:	MG/L
Dir:	0.		
Sample date:	13-JAN-15	Finding:	8.03
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dir:	0.		
Sample date:	13-JAN-15	Finding:	1.
Chemical:	COLOR	Report units:	UNITS
Dir:	0.		
Sample date:	13-JAN-15	Finding:	536.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dir:	0.		
Sample date:	09-SEP-14	Finding:	4.4
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dir:	1.		
Sample date:	06-JAN-14	Finding:	5.6
Chemical:	ARSENIC	Report units:	UG/L
Dir:	2.		
Sample date:	06-JAN-14	Finding:	27.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Dir:	2.		
Sample date:	07-OCT-13	Finding:	6.
Chemical:	ARSENIC	Report units:	UG/L
Dir:	2.		
Sample date:	07-OCT-13	Finding:	25.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dir:	2.		
Sample date:	09-JUL-13	Finding:	25.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dir:	2.		
Sample date:	09-JUL-13	Finding:	6.6
Chemical:	ARSENIC	Report units:	UG/L
Dir:	2.		
Sample date:	28-MAY-13	Finding:	24.
Chemical:	SILICA	Report units:	MG/L
Dir:	0.		
Sample date:	07-MAY-13	Finding:	6.4
Chemical:	ARSENIC	Report units:	UG/L
Dir:	2.		
Sample date:	09-APR-13	Finding:	28.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dir:	2.		
Sample date:	07-JAN-13	Finding:	25.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dir:	2.		
Sample date:	16-OCT-12	Finding:	5.2
Chemical:	ARSENIC	Report units:	UG/L
Dir:	2.		
Sample date:	01-OCT-12	Finding:	24.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dir:	2.		
Sample date:	05-JUL-12	Finding:	49.
Chemical:	CALCIUM	Report units:	MG/L
Dir:	0.		
Sample date:	05-JUL-12	Finding:	11.
Chemical:	MAGNESIUM	Report units:	MG/L
Dir:	0.		
Sample date:	05-JUL-12	Finding:	41.
Chemical:	SODIUM	Report units:	MG/L
Dir:	0.		
Sample date:	05-JUL-12	Finding:	5.
Chemical:	CHROMIUM (TOTAL)	Report units:	UG/L
Dir:	10.		
Sample date:	05-JUL-12	Finding:	120.
Chemical:	BARIUM	Report units:	UG/L
Dir:	100.		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample date:	03-JUL-12	Finding:	24.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dir:	2.		
Sample date:	01-MAY-12	Finding:	6.e-003
Chemical:	1,2,3-TRICHLOROPROPANE	Report units:	UG/L
Dir:	5.e-003		
Sample date:	04-JAN-12	Finding:	0.4
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dir:	0.1		
Sample date:	04-JAN-12	Finding:	28.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dir:	2.		
Sample date:	04-JAN-12	Finding:	340.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dir:	0.		
Sample date:	04-JAN-12	Finding:	130.
Chemical:	IRON	Report units:	UG/L
Dir:	100.		
Sample date:	04-JAN-12	Finding:	0.19
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dir:	0.1		
Sample date:	04-JAN-12	Finding:	43.
Chemical:	SULFATE	Report units:	MG/L
Dir:	0.5		
Sample date:	04-JAN-12	Finding:	44.
Chemical:	CHLORIDE	Report units:	MG/L
Dir:	0.		
Sample date:	04-JAN-12	Finding:	170.
Chemical:	HARDNESS (TOTAL) AS CaCO3	Report units:	MG/L
Dir:	0.		
Sample date:	04-JAN-12	Finding:	170.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dir:	0.		
Sample date:	04-JAN-12	Finding:	140.
Chemical:	ALKALINITY (TOTAL) AS CaCO3	Report units:	MG/L
Dir:	0.		
Sample date:	04-JAN-12	Finding:	7.89
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dir:	0.		
Sample date:	04-JAN-12	Finding:	1.
Chemical:	COLOR	Report units:	UNITS
Dir:	0.		
Sample date:	04-JAN-12	Finding:	573.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dir:	0.		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

27
ESE
1/2 - 1 Mile
Lower

CA WELLS CADDW0000019966

Well ID:	1510024-004	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	TAFT WELL - BEFORE_AS-TRT	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=1510024-004&store_num=		
GeoTracker Data:	Not Reported		

28
West
1/2 - 1 Mile
Higher

FED USGS USGS40000162096

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	030S027E36M002M	Type:	Well
Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	1949	Well Depth:	415
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

1

East
1/2 - 1 Mile

OIL_GAS CAOG14000002930

API #: 0402932235
Well Status: Plugged
Lease Name: Houghton
Area Name: Any Area
Confidential Well: N
Spud Date: Not Reported

Well #: 1
Well Type: Dry Hole
Field Name: Any Field
GIS Source: mip
Directionally Drilled: N

2

WNW
1/2 - 1 Mile

OIL_GAS CAOG14000004169

API #: 0402977284
Well Status: Plugged
Lease Name: M. G. Davis
Area Name: Any Area
Confidential Well: N
Spud Date: Not Reported

Well #: 36-1
Well Type: Oil & Gas
Field Name: Any Field
GIS Source: hud
Directionally Drilled: N

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
93307	68	7

Federal EPA Radon Zone for KERN County: 2

- Note: Zone 1 indoor average level > 4 pCi/L.
 : Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
 : Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 93307

Number of sites tested: 6

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	1.217 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map

Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory

Source: Department of Fish and Wildlife

Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

OTHER STATE DATABASE INFORMATION

Groundwater Ambient Monitoring & Assessment Program

State Water Resources Control Board

Telephone: 916-341-5577

The GAMA Program is California's comprehensive groundwater quality monitoring program. GAMA collects data by testing the untreated, raw water in different types of wells for naturally-occurring and man-made chemicals. The GAMA data includes Domestic, Monitoring and Municipal well types from the following sources, Department of Water Resources, Department of Health Services, EDF, Agricultural Lands, Lawrence Livermore National Laboratory, Department of Pesticide Regulation, United States Geological Survey, Groundwater Ambient Monitoring and Assessment Program and Local Groundwater Projects.

Water Well Database

Source: Department of Water Resources

Telephone: 916-651-9648

California Drinking Water Quality Database

Source: Department of Public Health

Telephone: 916-324-2319

The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

California Oil and Gas Well Locations

Source: Dept of Conservation, Geologic Energy Management Division

Telephone: 916-323-1779

Oil and Gas well locations in the state.

California Earthquake Fault Lines

Source: California Division of Mines and Geology

The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

RADON

State Database: CA Radon

Source: Department of Public Health

Telephone: 916-210-8558

Radon Database for California

PHYSICAL SETTING SOURCE RECORDS SEARCHED

Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRRA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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APPENDIX F
AERIAL PHOTOGRAPHS



AREC - Vacant Land

9407 South H Street

Bakersfield, CA 93307

Inquiry Number: 6757422.11

November 19, 2021

The EDR Aerial Photo Decade Package



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

11/19/21

Site Name:

AREC - Vacant Land
9407 South H Street
Bakersfield, CA 93307
EDR Inquiry # 6757422.11

Client Name:

ATC Group Services LLC
9185 South Farmer Avenue
Tempe, AZ 85284
Contact: Robert Petrisko



Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
2016	1"=500'	Flight Year: 2016	USDA/NAIP
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
1984	1"=500'	Flight Date: June 16, 1984	USDA
1973	1"=500'	Flight Date: May 01, 1973	USDA
1968	1"=500'	Flight Date: April 21, 1968	USGS
1956	1"=500'	Flight Date: August 03, 1956	USDA
1952	1"=500'	Flight Date: August 15, 1952	USGS
1942	1"=500'	Flight Date: May 31, 1942	USDA
1937	1"=500'	Flight Date: August 01, 1937	USDA

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INQUIRY #: 6757422.11

YEAR: 2016

— = 500'





INQUIRY #: 6757422.11

YEAR: 2012

 = 500'





INQUIRY #: 6757422.11

YEAR: 2009

 = 500'





INQUIRY #: 6757422.11

YEAR: 2006

— = 500'





INQUIRY #: 6757422.11

YEAR: 1984

— = 500'





INQUIRY #: 6757422.11

YEAR: 1973

 = 500'





INQUIRY #: 6757422.11

YEAR: 1968

— = 500'





INQUIRY #: 6757422.11

YEAR: 1956

 = 500'





INQUIRY #: 6757422.11

YEAR: 1952

— = 500'





INQUIRY #: 6757422.11

YEAR: 1942

 = 500'





INQUIRY #: 6757422.11

YEAR: 1937


 = 500'




1994

Write a description for your map.

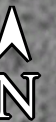
Legend

 9203 S H St

 9203 S H St

Google Earth

Image U.S. Geological Survey





700 ft

2003

Write a description for your map.

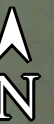
Legend

 9203 S H St

 9203 S H St

Google Earth

Image © 2021 Maxar Technologies



800 ft

2011

Write a description for your map.

Legend

9203 S H St

9203 S H St

Google Earth

800 ft



2013

Write a description for your map.

Legend

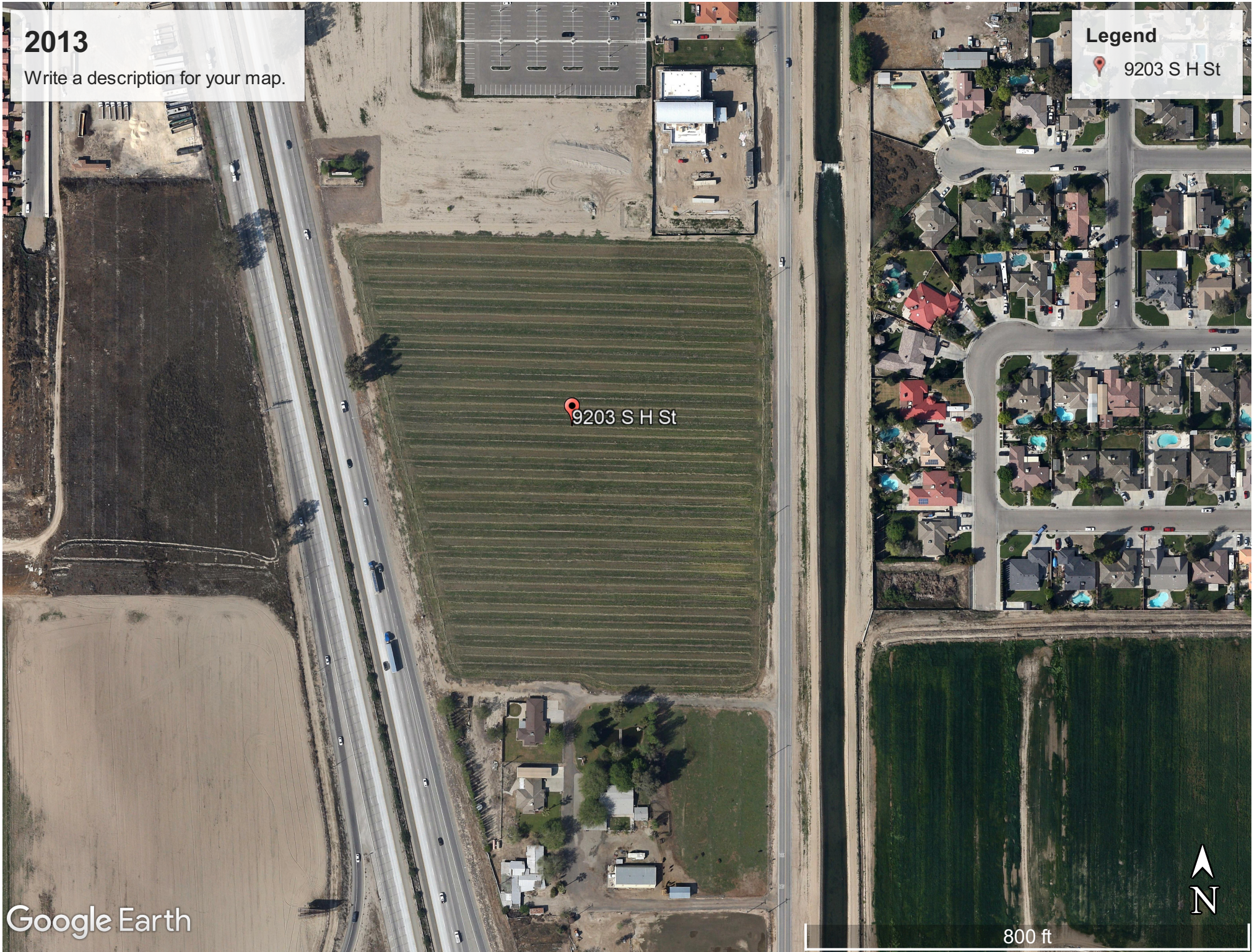
📍 9203 S H St

📍 9203 S H St

Google Earth



800 ft



APPENDIX G
HISTORICAL RESEARCH DOCUMENTATION

AREC - Vacant Land

9407 South H Street

Bakersfield, CA 93307

Inquiry Number: 6757422.3

November 19, 2021

Certified Sanborn® Map Report



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

11/19/21

Site Name:

AREC - Vacant Land
9407 South H Street
Bakersfield, CA 93307
EDR Inquiry # 6757422.3

Client Name:

ATC Group Services LLC
9185 South Farmer Avenue
Tempe, AZ 85284
Contact: Robert Petrisko



The Sanborn Library has been searched by EDR and maps covering the target property location as provided by ATC Group Services LLC were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # 7484-4732-A6DC
PO # NA
Project AREC - Bakersfield CA

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.



Sanborn® Library search results

Certification #: 7484-4732-A6DC

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- Library of Congress
- University Publications of America
- EDR Private Collection

The Sanborn Library LLC Since 1866™

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AREC - Vacant Land

9407 South H Street

Bakersfield, CA 93307

Inquiry Number: 6757422.4

November 19, 2021

EDR Historical Topo Map Report

with QuadMatch™



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

11/19/21

Site Name:

AREC - Vacant Land
9407 South H Street
Bakersfield, CA 93307
EDR Inquiry # 6757422.4

Client Name:

ATC Group Services LLC
9185 South Farmer Avenue
Tempe, AZ 85284
Contact: Robert Petrisko



EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by ATC Group Services LLC were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDR's Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:**Coordinates:**

P.O.#	NA	Latitude:	35.271376 35° 16' 17" North
Project:	AREC - Bakersfield CA	Longitude:	-119.022516 -119° 1' 21" West
		UTM Zone:	Zone 11 North
		UTM X Meters:	316040.63
		UTM Y Meters:	3905013.65
		Elevation:	352.00' above sea level

Maps Provided:

2018	1947
2015	1942
2012	1938, 1941
1978	1932, 1933
1973	1912, 1914
1968	1910
1954, 1955	
1950	

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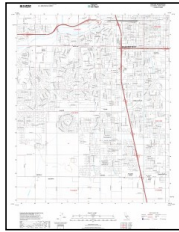
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Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

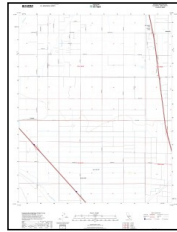
2018 Source Sheets



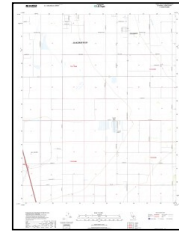
Gosford
2018
7.5-minute, 24000



Lamont
2018
7.5-minute, 24000

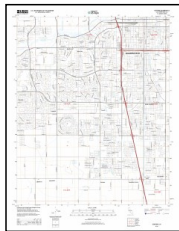


Conner
2018
7.5-minute, 24000



Weed Patch
2018
7.5-minute, 24000

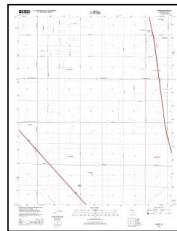
2015 Source Sheets



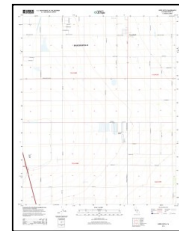
Gosford
2015
7.5-minute, 24000



Lamont
2015
7.5-minute, 24000

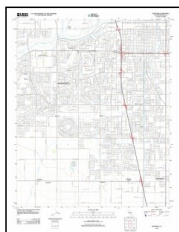


Conner
2015
7.5-minute, 24000



Weed Patch
2015
7.5-minute, 24000

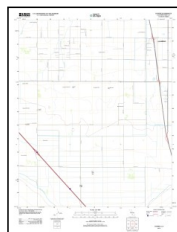
2012 Source Sheets



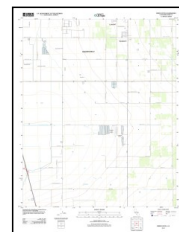
Gosford
2012
7.5-minute, 24000



Lamont
2012
7.5-minute, 24000



Conner
2012
7.5-minute, 24000

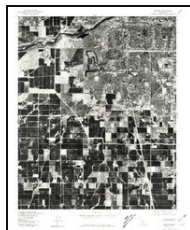


Weed Patch
2012
7.5-minute, 24000

1978 Source Sheets



Lamont
1978
7.5-minute, 24000
Aerial Photo Revised 1978

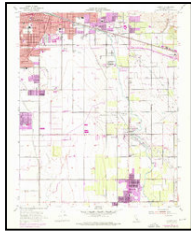


Gosford
1978
7.5-minute, 24000
Aerial Photo Revised 1978

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1973 Source Sheets



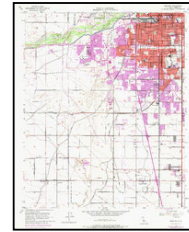
Lamont
1973
7.5-minute, 24000
Aerial Photo Revised 1973



Conner
1973
7.5-minute, 24000
Aerial Photo Revised 1973



Weed Patch
1973
7.5-minute, 24000
Aerial Photo Revised 1973

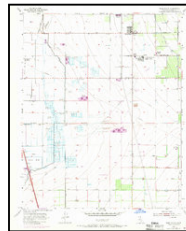


Gosford
1973
7.5-minute, 24000
Aerial Photo Revised 1973

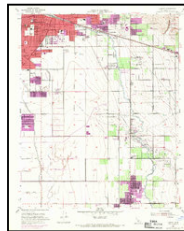
1968 Source Sheets



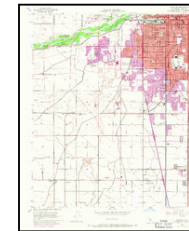
Conner
1968
7.5-minute, 24000
Aerial Photo Revised 1968



Weed Patch
1968
7.5-minute, 24000
Aerial Photo Revised 1968

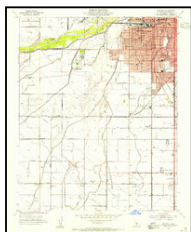


Lamont
1968
7.5-minute, 24000
Aerial Photo Revised 1968

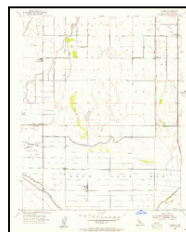


Gosford
1968
7.5-minute, 24000
Aerial Photo Revised 1968

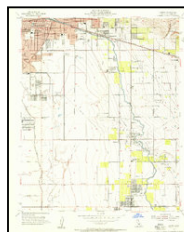
1954, 1955 Source Sheets



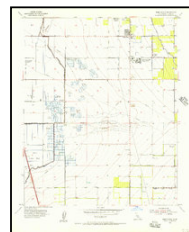
Gosford
1954
7.5-minute, 24000



Conner
1954
7.5-minute, 24000
Aerial Photo Revised 1952



Lamont
1954
7.5-minute, 24000
Aerial Photo Revised 1952

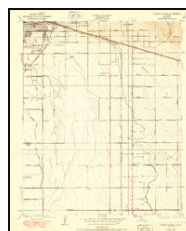


Weed Patch
1955
7.5-minute, 24000
Aerial Photo Revised 1952

1950 Source Sheets



Gosford
1950
7.5-minute, 24000



Fairfax School
1950
7.5-minute, 24000

Topo Sheet Key

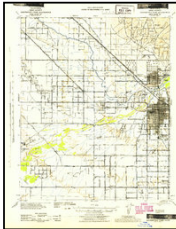
This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1947 Source Sheets



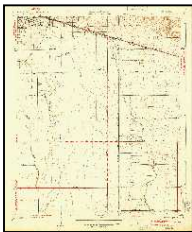
BAKERSFIELD WEST
1947
15-minute, 50000

1942 Source Sheets



Bakersfield West
1942
15-minute, 62500
Aerial Photo Revised 1942

1938, 1941 Source Sheets

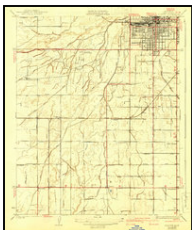


FAIRFAX SCHOOL
1938
7.5-minute, 31680



GOSFORD
1941
7.5-minute, 31680

1932, 1933 Source Sheets



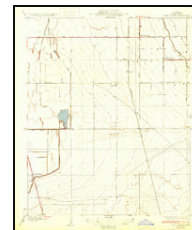
Gosford
1932
7.5-minute, 31680



Fairfax School
1932
7.5-minute, 31680



Conner
1933
7.5-minute, 31680



Weed Patch
1933
7.5-minute, 31680

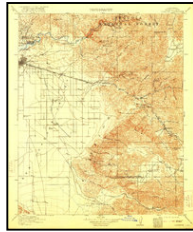
Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1912, 1914 Source Sheets

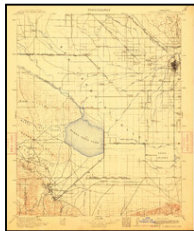


Buena Vista Lake
1912
30-minute, 125000

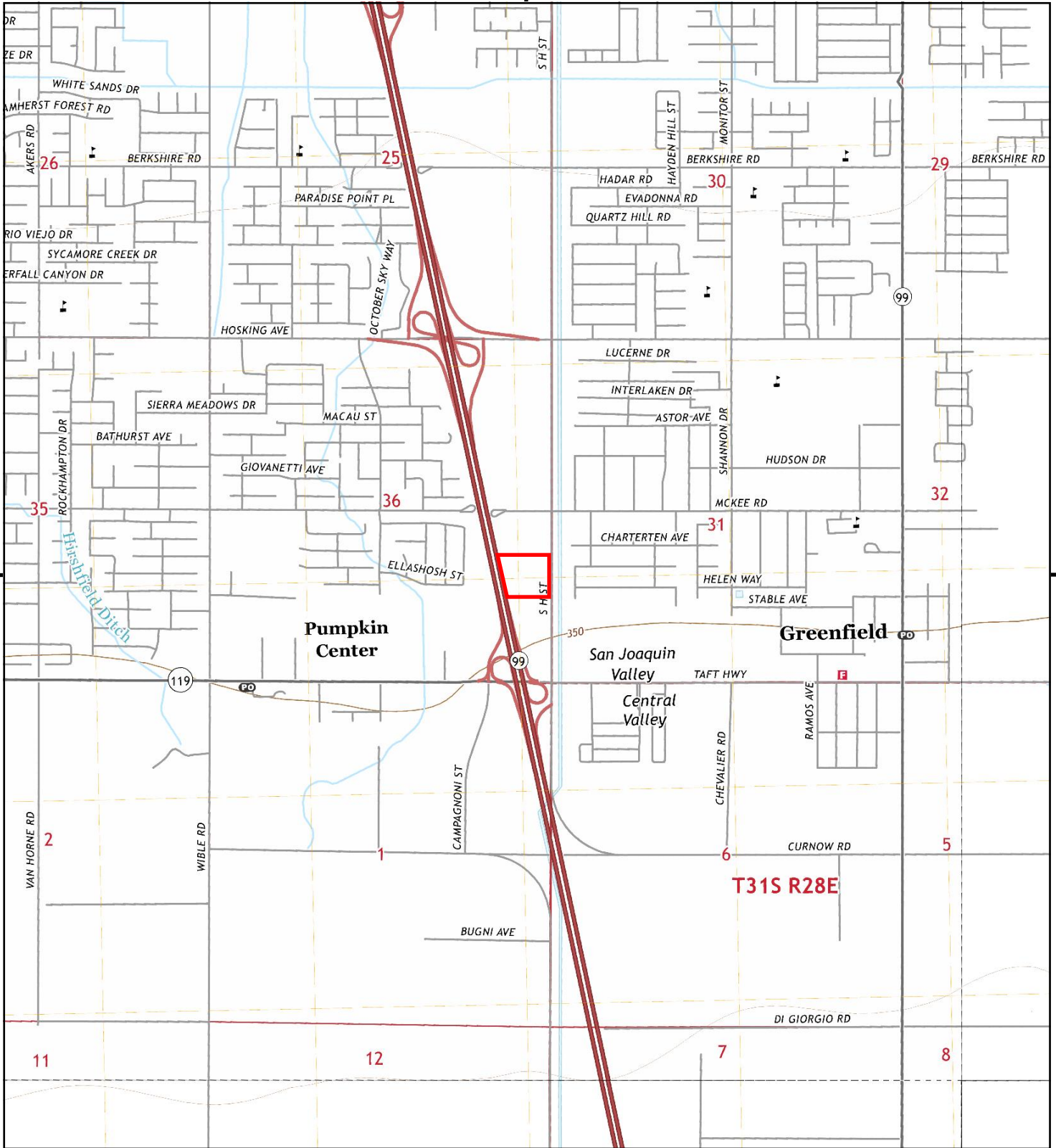


Caliente
1914
30-minute, 125000

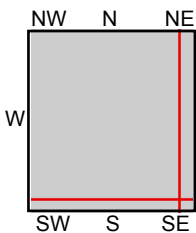
1910 Source Sheets



Buena Vista Lake
1910
30-minute, 125000



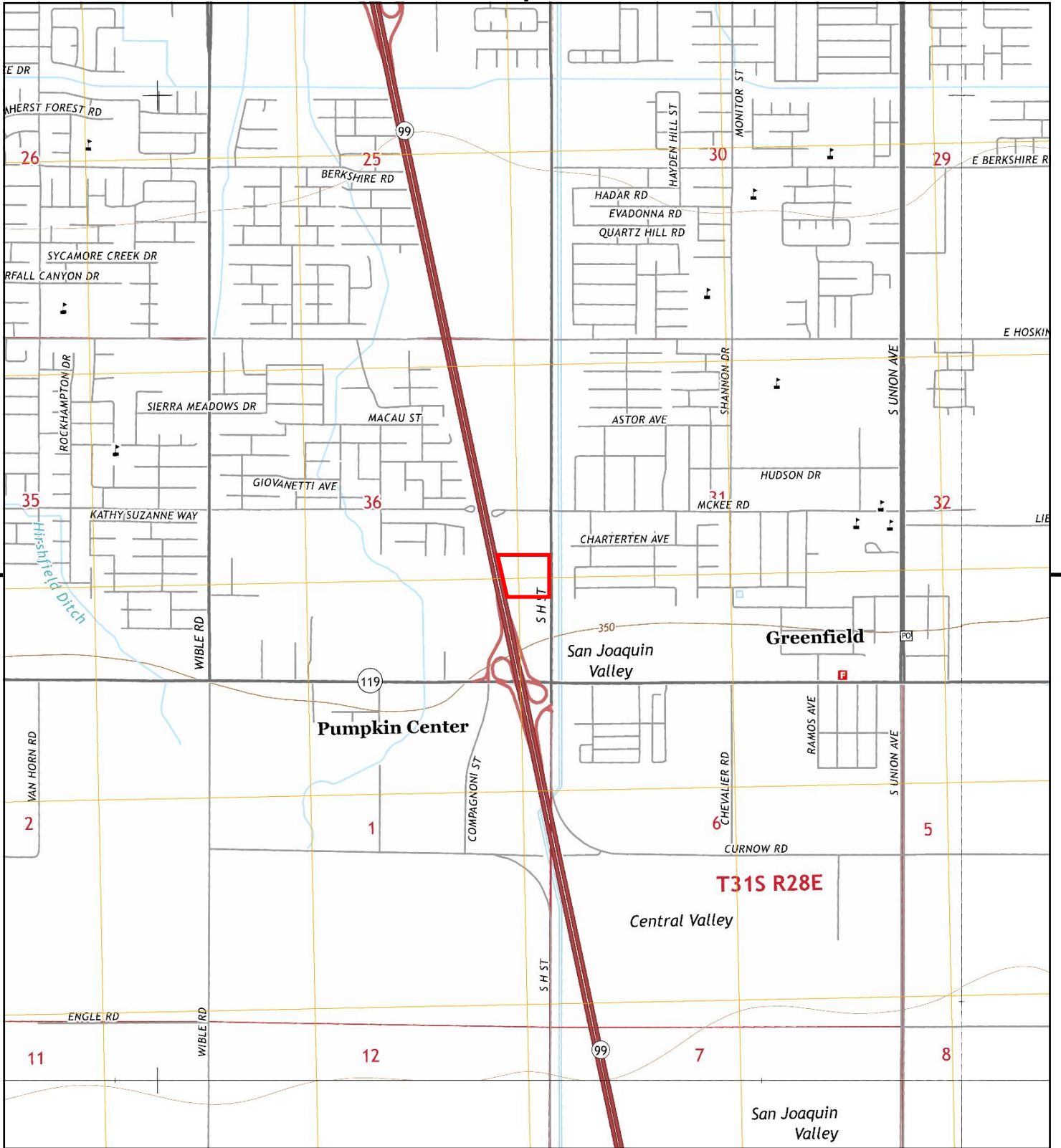
This report includes information from the following map sheet(s).



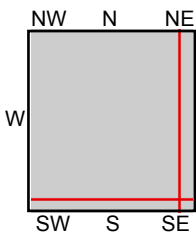
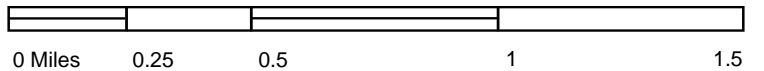
TP, Gosford, 2018, 7.5-minute
 NE, Lamont, 2018, 7.5-minute
 SE, Weed Patch, 2018, 7.5-minute
 S, Conner, 2018, 7.5-minute

SITE NAME: AREC - Vacant Land
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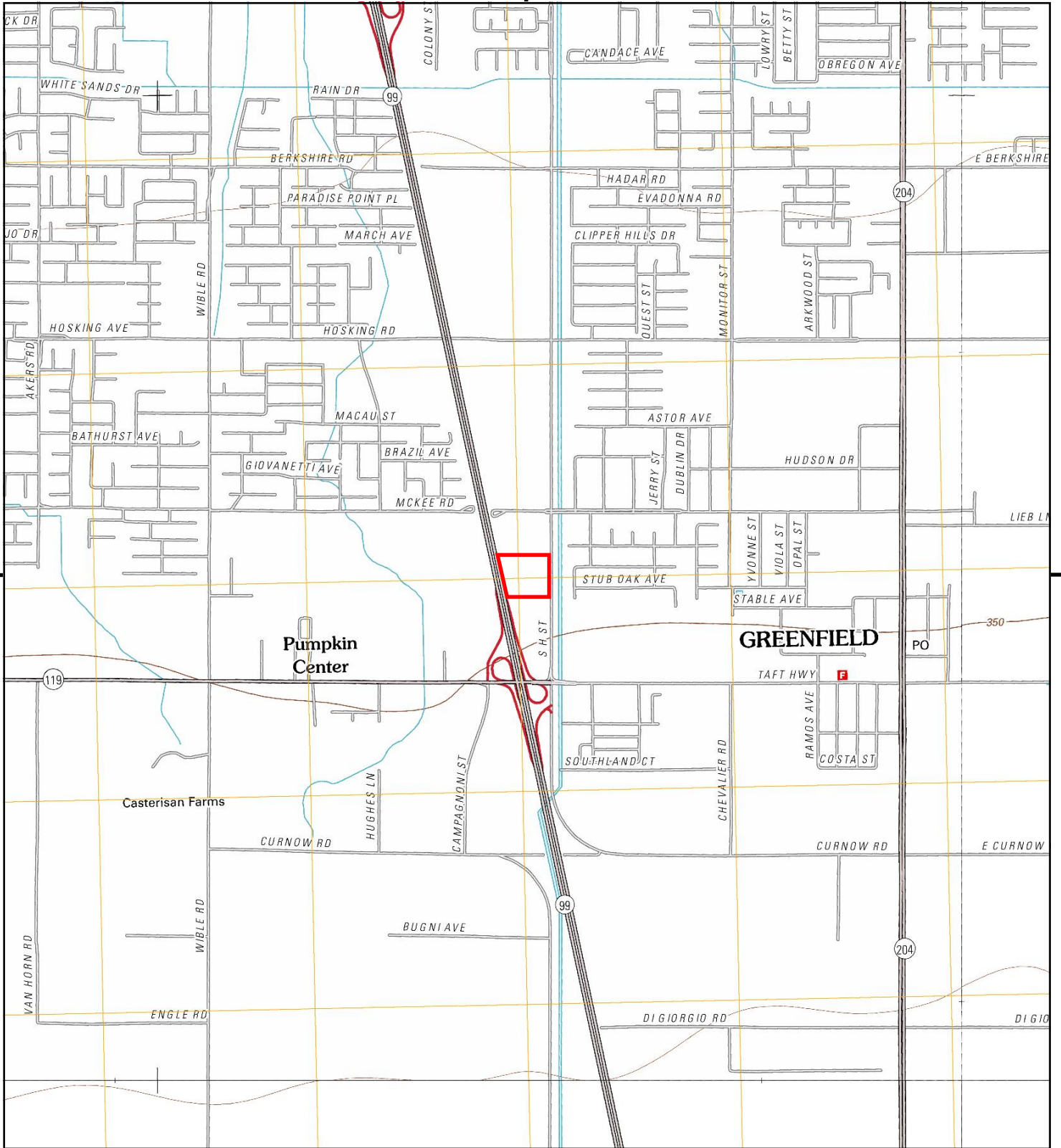
This report includes information from the following map sheet(s).



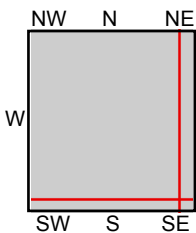
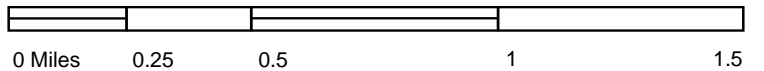
TP, Gosford, 2015, 7.5-minute
 NE, Lamont, 2015, 7.5-minute
 SE, Weed Patch, 2015, 7.5-minute
 S, Conner, 2015, 7.5-minute

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This report includes information from the following map sheet(s).



TP, Gosford, 2012, 7.5-minute
 NE, Lamont, 2012, 7.5-minute
 SE, Weed Patch, 2012, 7.5-minute
 S, Conner, 2012, 7.5-minute

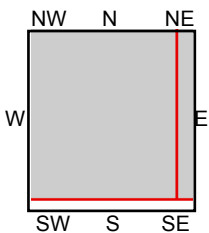
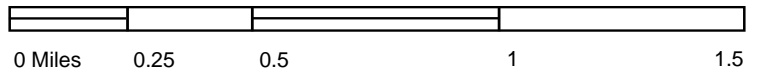
SITE NAME: AREC - Vacant Land
ADDRESS: 9407 South H Street
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UNMAPPED UNMAPPED UNMAPPED UNMAPPED UNMAPPED UNMAPPED

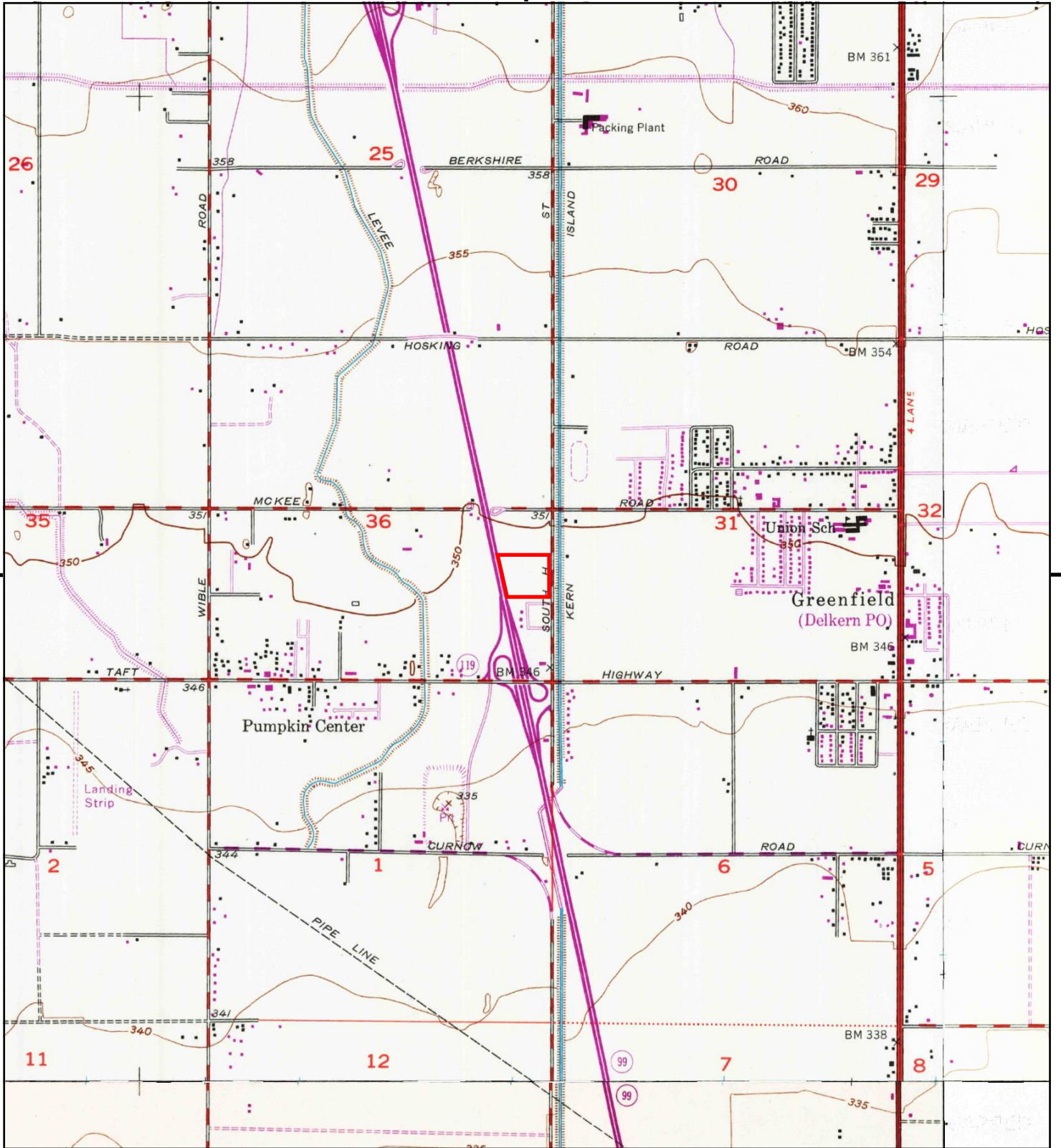
This report includes information from the following map sheet(s).



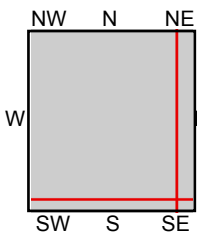
TP, Gosford, 1978, 7.5-minute
NE, Lamont, 1978, 7.5-minute

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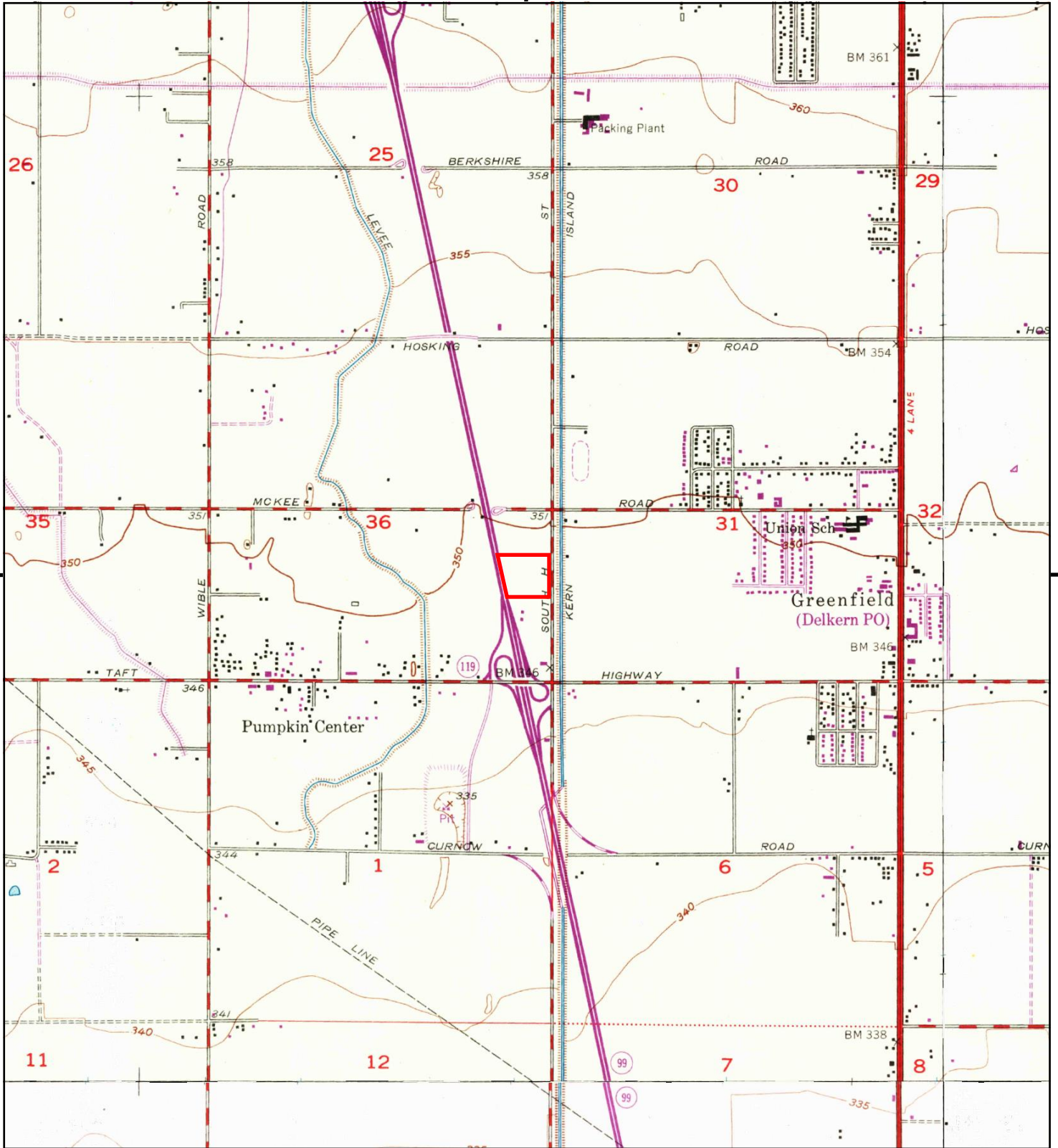
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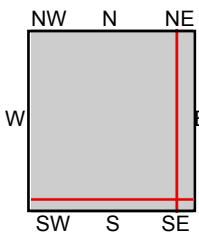
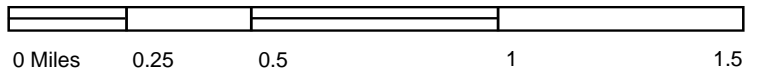
TP, Gosford, 1973, 7.5-minute
 NE, Lamont, 1973, 7.5-minute
 SE, Weed Patch, 1973, 7.5-minute
 S, Conner, 1973, 7.5-minute

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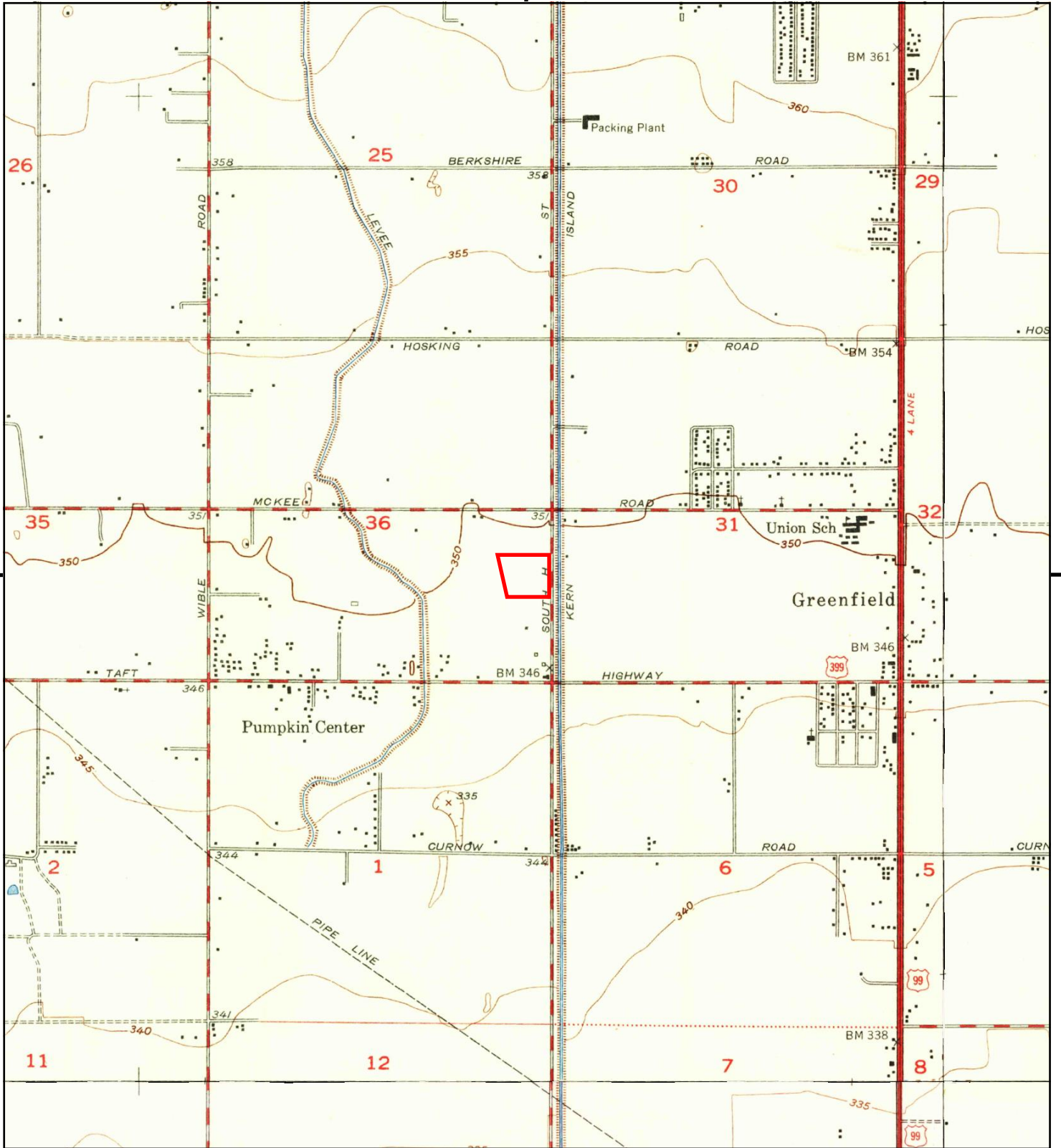
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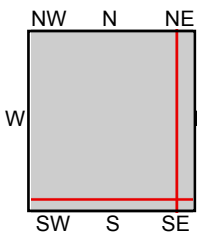
TP, Gosford, 1968, 7.5-minute
 NE, Lamont, 1968, 7.5-minute
 SE, Weed Patch, 1968, 7.5-minute
 S, Conner, 1968, 7.5-minute

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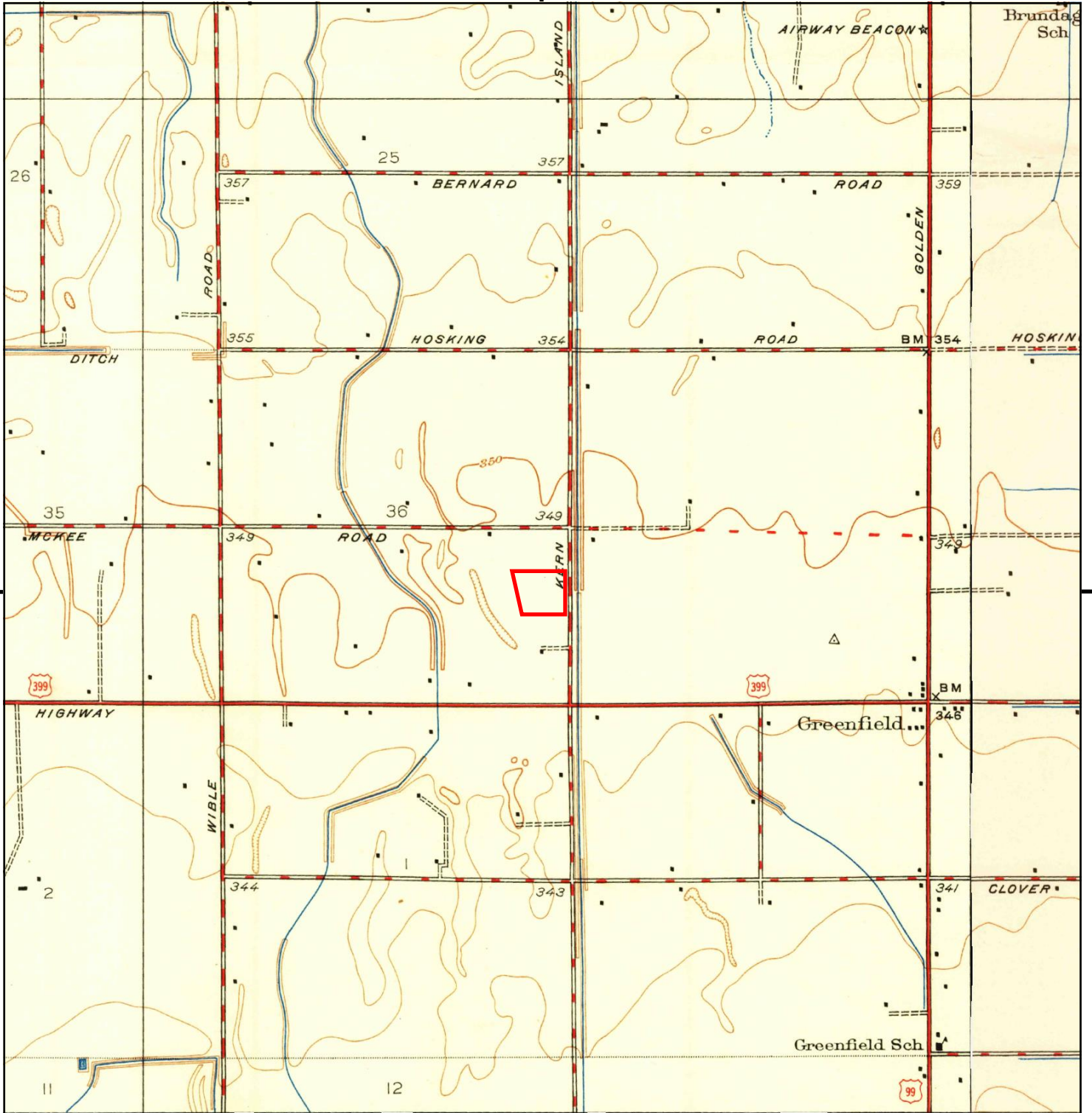
This report includes information from the following map sheet(s).



TP, Gosford, 1954, 7.5-minute
 NE, Lamont, 1954, 7.5-minute
 SE, Weed Patch, 1955, 7.5-minute
 S, Conner, 1954, 7.5-minute

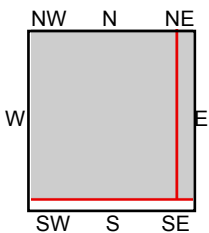
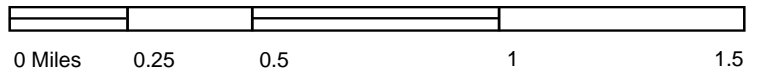
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ADDRESS: 9407 South H Street
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UNMAPPED UNMAPPED UNMAPPED UNMAPPED UNMAPPED UNMAPPED

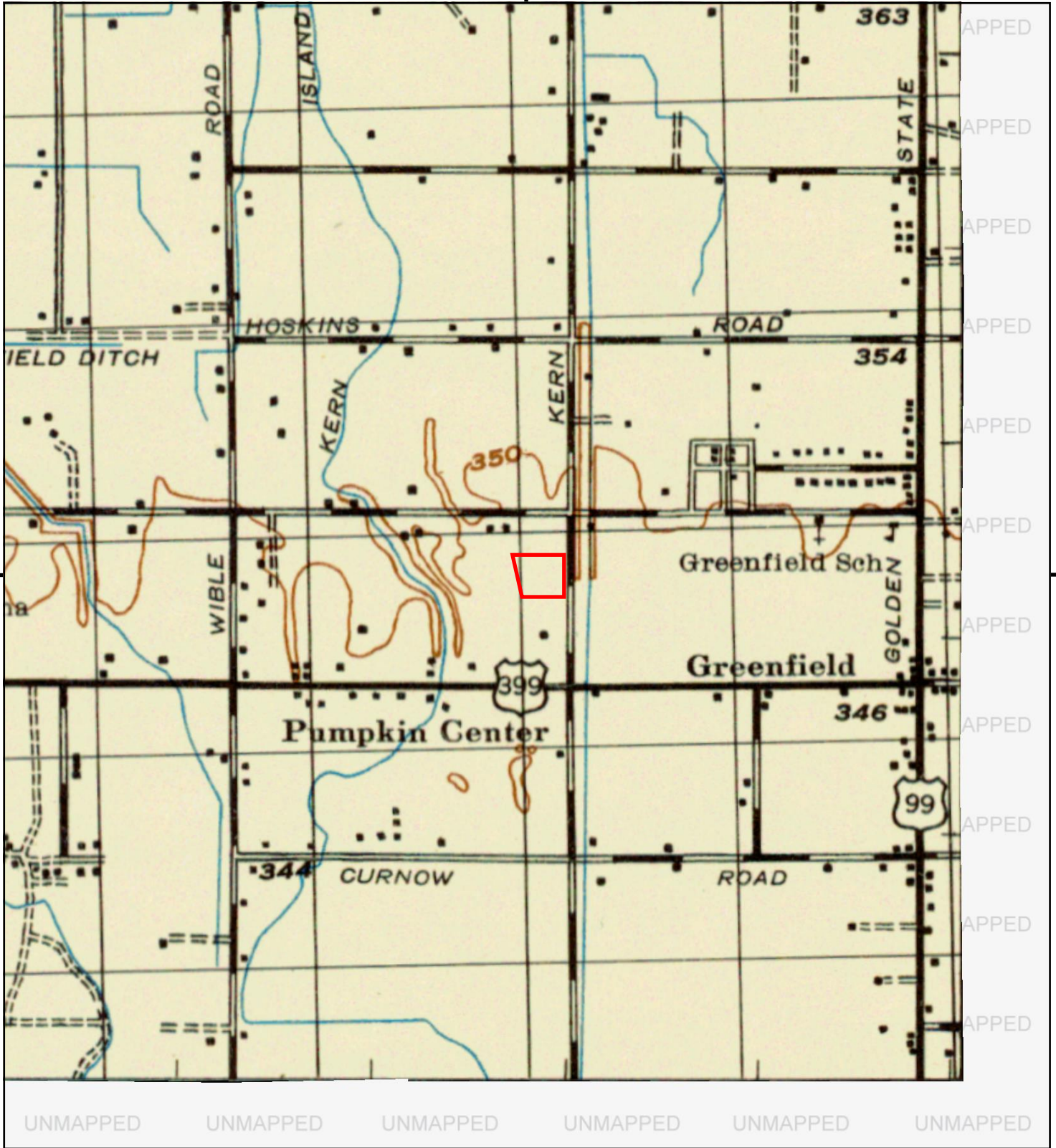
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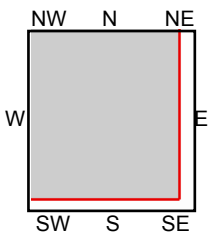
TP, Gosford, 1950, 7.5-minute
NE, Fairfax School, 1950, 7.5-minute

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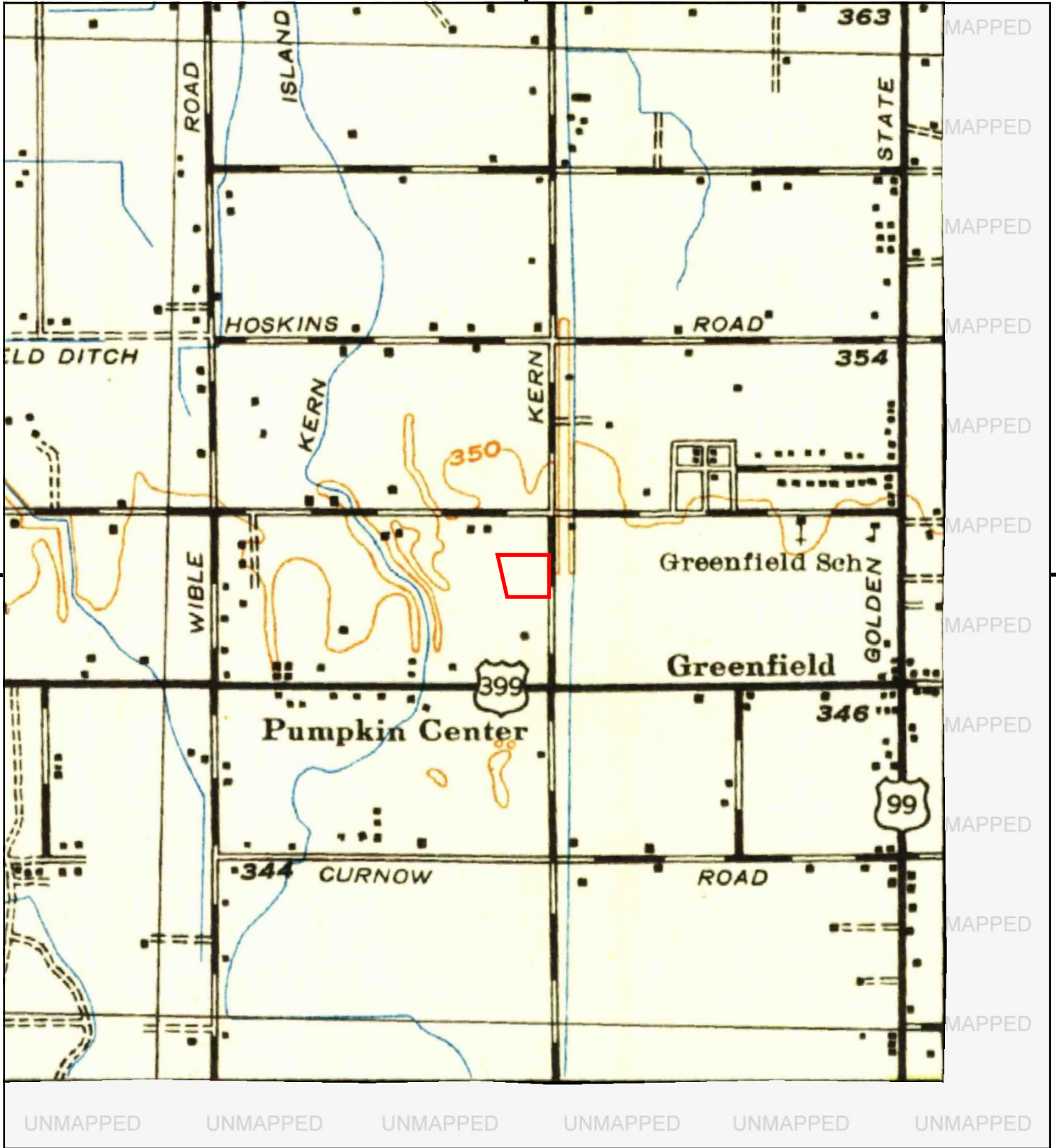
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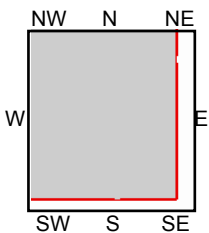
TP, BAKERSFIELD WEST, 1947, 15-minute

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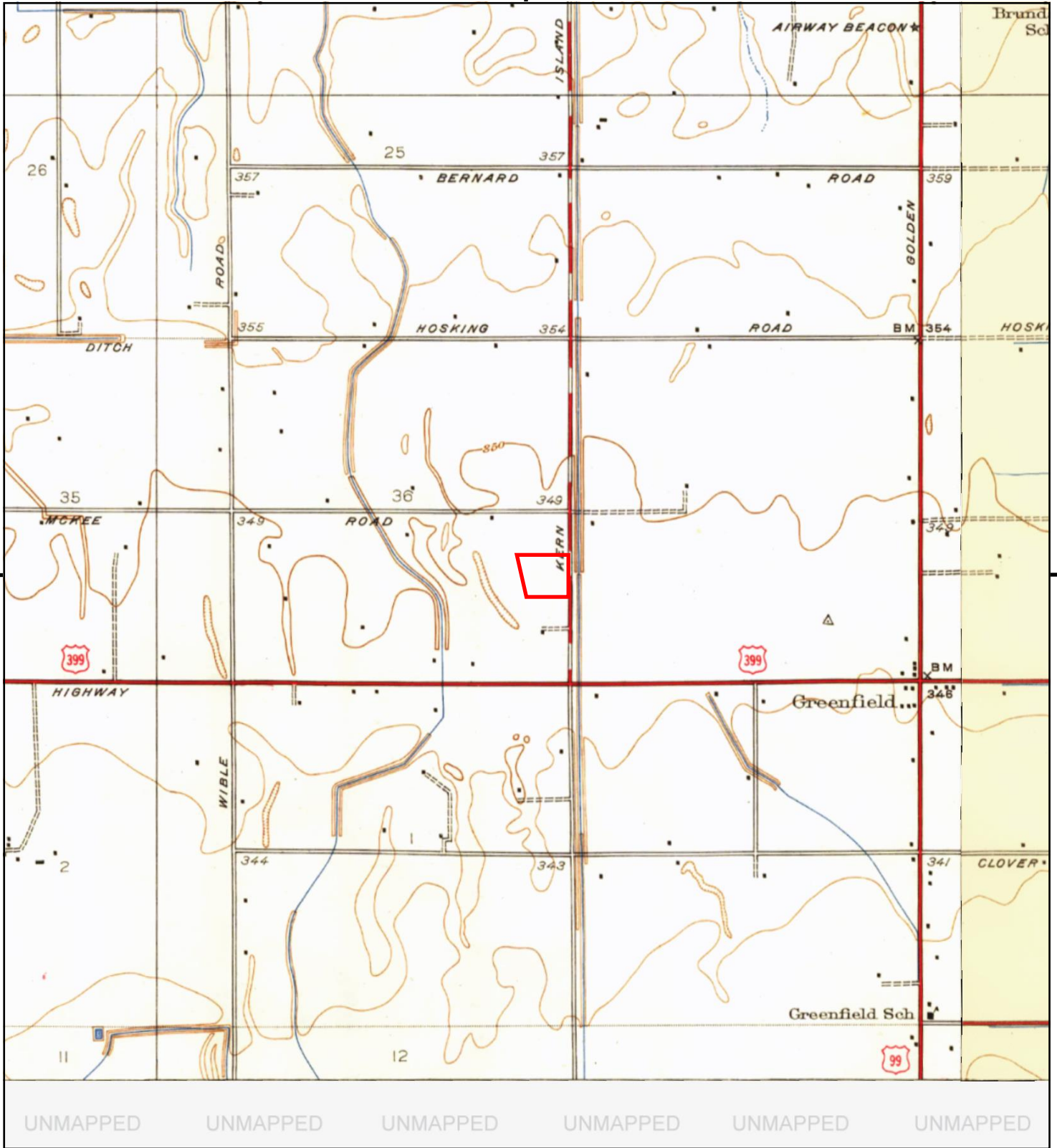
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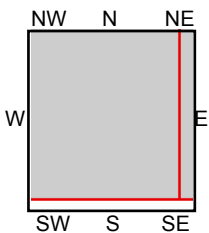
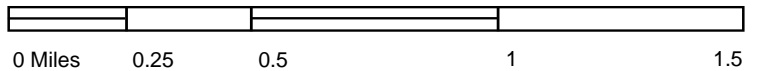
TP, Bakersfield West, 1942, 15-minute

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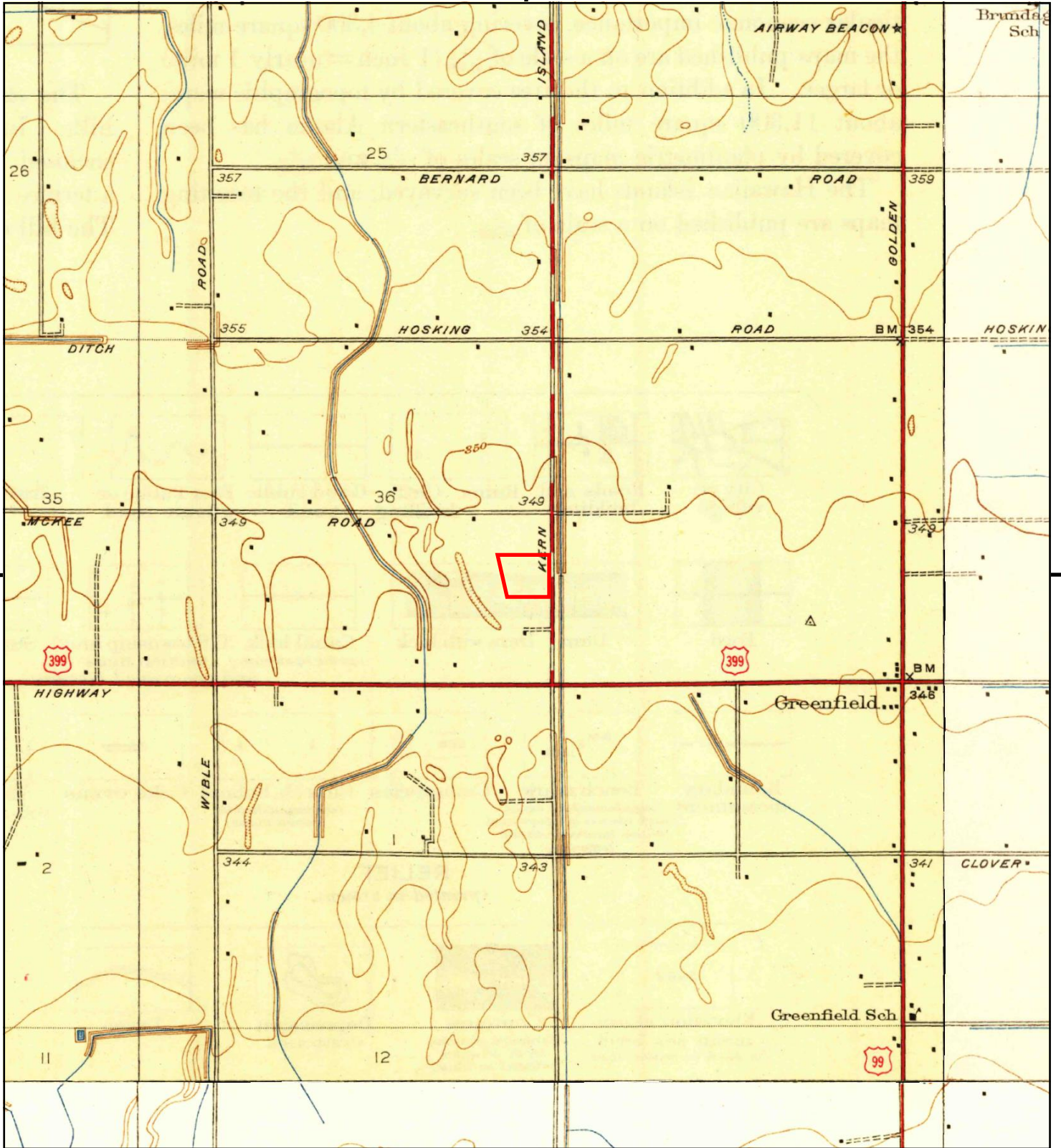
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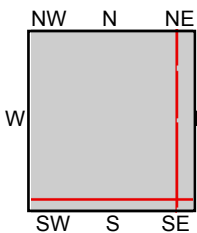
TP, GOSFORD, 1941, 7.5-minute
NE, FAIRFAX SCHOOL, 1938, 7.5-minute

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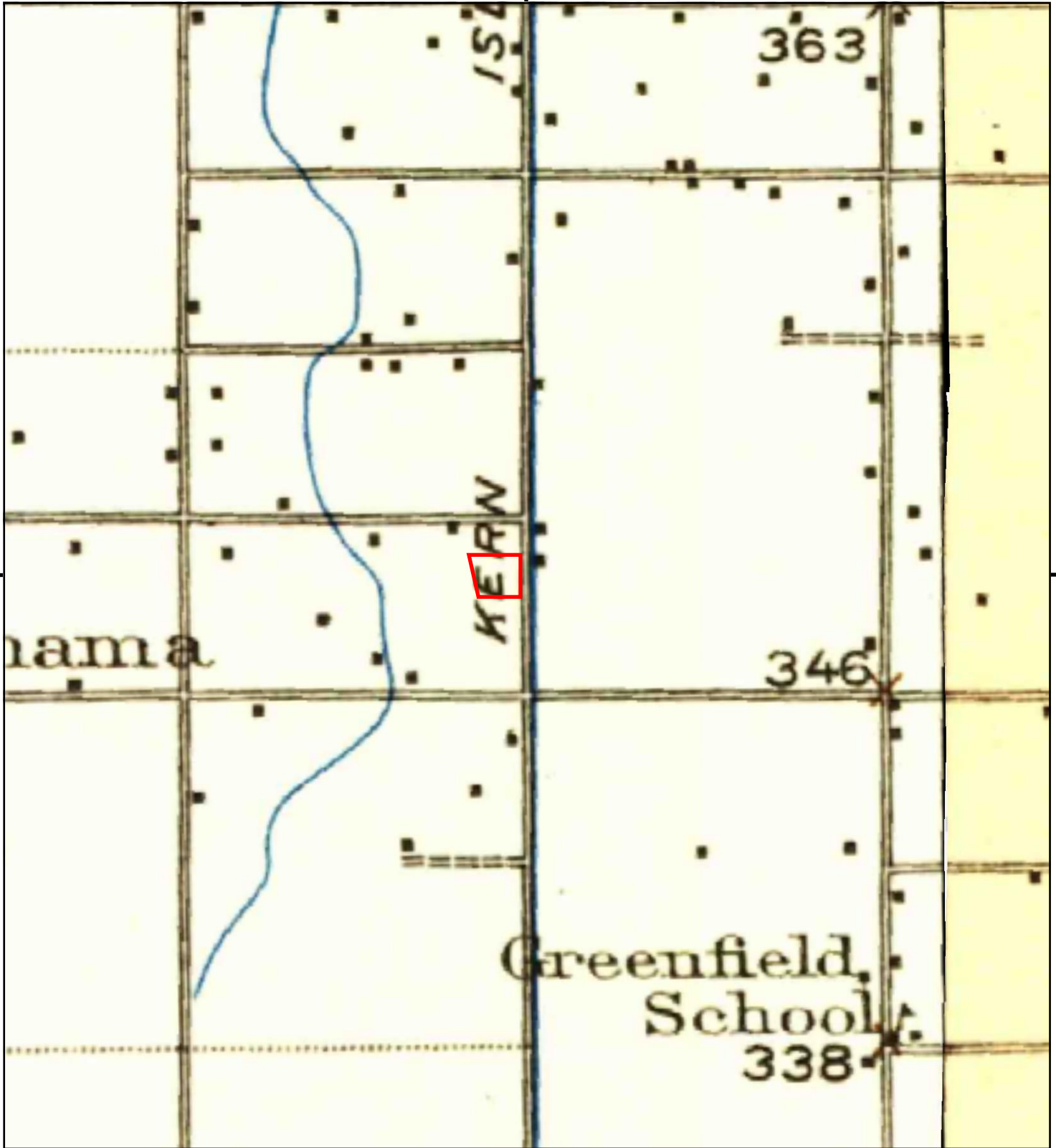
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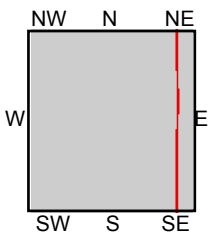
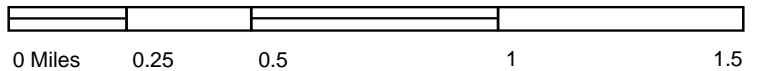
TP, Gosford, 1932, 7.5-minute
 NE, Fairfax School, 1932, 7.5-minute
 SE, Weed Patch, 1933, 7.5-minute
 S, Conner, 1933, 7.5-minute

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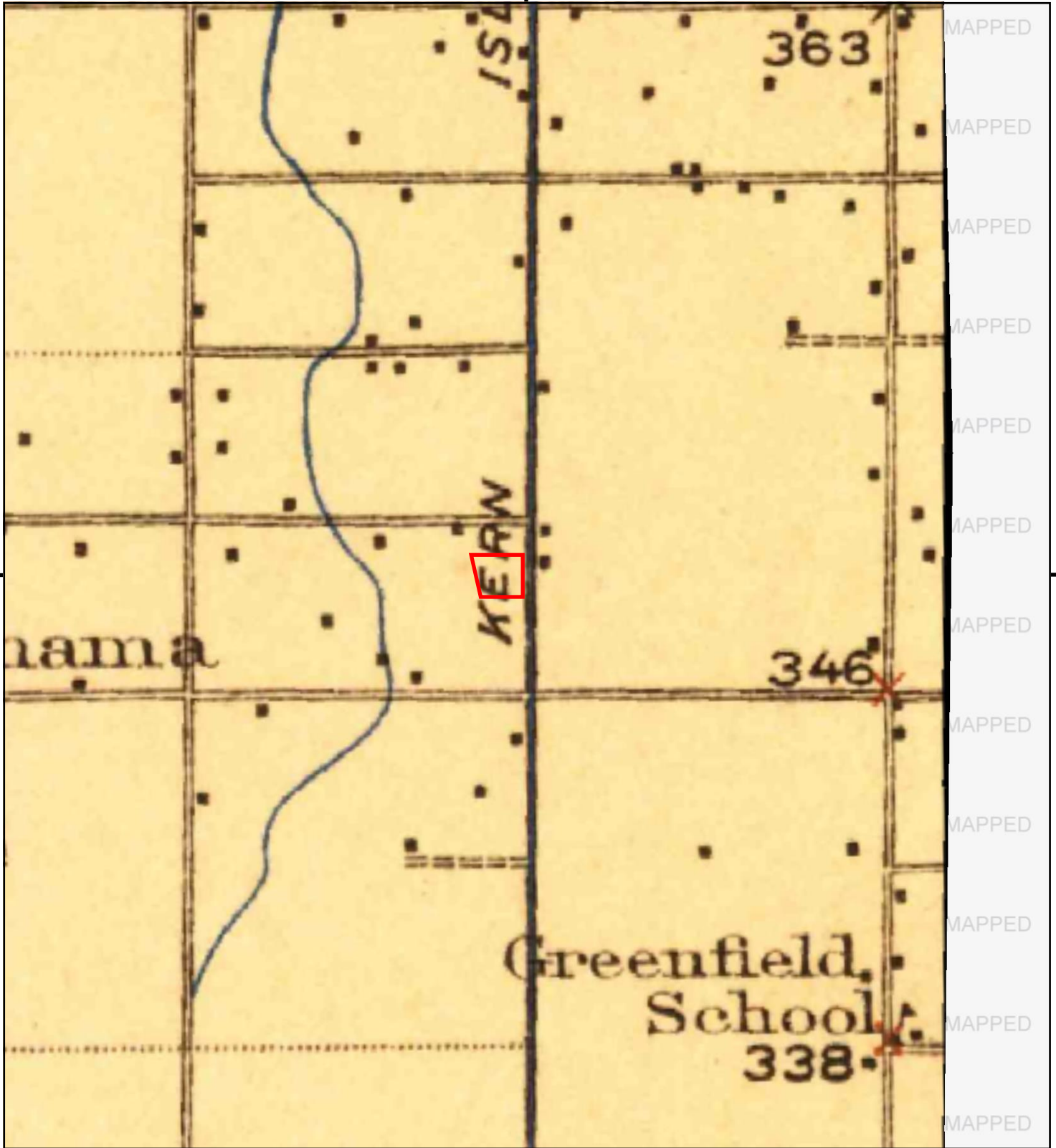
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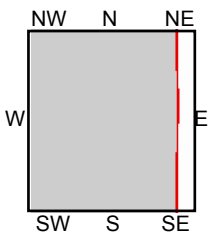
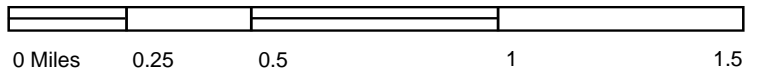
TP, Buena Vista Lake, 1912, 30-minute
E, Caliente, 1914, 30-minute

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This report includes information from the following map sheet(s).



TP, Buena Vista Lake, 1910, 30-minute

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AREC - Vacant Land

9407 South H Street
Bakersfield, CA 93307

Inquiry Number: 6757422.5
November 19, 2021

The EDR-City Directory Abstract

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SECTION

Executive Summary

Findings

City Directory Images

Thank you for your business.

Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1922 through 2017. This report compiles information gathered in this review by geocoding the latitude and longitude of properties identified and gathering information about properties within 660 feet of the target property.

A summary of the information obtained is provided in the text of this report.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

<u>Year</u>	<u>Source</u>	<u>TP</u>	<u>Adjoining</u>	<u>Text Abstract</u>	<u>Source Image</u>
2017	Cole Information Services	X	X	X	-
2014	Cole Information Services	X	X	X	-
2009	Cole Information Services	X	X	X	-
2004	Cole Information Services	X	X	X	-
2002	R.L. Polk Co Publishers	-	X	X	X
	R.L. Polk Co Publishers	X	X	X	X
1999	Cole Information Services	X	X	X	-
1995	R.L. Polk Co Publishers	-	-	-	-
1994	Cole Information Services	X	X	X	-
1990	Pacific Bell Telephone Co	-	X	X	-

EXECUTIVE SUMMARY

<u>Year</u>	<u>Source</u>	<u>TP</u>	<u>Adjoining</u>	<u>Text Abstract</u>	<u>Source Image</u>
1990	Pacific Bell Telephone Co	X	X	X	-
1986	Pacific Telephone	-	X	X	-
	Pacific Telephone	X	X	X	-
1980	R.L. Polk Co Publishers	-	-	-	-
1976	B&G Publications	-	-	-	-
1975	R.L. Polk Co Publishers	-	-	-	-
1971	B&G Publications	-	-	-	-
1970	R.L. Polk Co Publishers	-	-	-	-
1965	R.L. Polk Co Publishers	-	-	-	-
1960	R.L. Polk Co Publishers	-	-	-	-
1955	R. L. Polk Co.	-	-	-	-
1951	R. L. Polk Co.	-	-	-	-
1945	R. L. Polk Co.	-	-	-	-
1940	R. L. Polk Co.	-	-	-	-
1935	R.L. Polk Co Publishers	-	-	-	-
1930	R. L. Polk Co.	-	-	-	-
1928	R.L. Polk Co Publishers	-	-	-	-
1922	Polk-Husted Directory Co.	-	-	-	-

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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EXECUTIVE SUMMARY

SELECTED ADDRESSES

The following addresses were selected by the client, for EDR to research. An "X" indicates where information was identified.

<u>Address</u>	<u>Type</u>	<u>Findings</u>
1751 McKee Road	Client Entered	X
9435 South H Street	Client Entered	X
2055 McKee Road	Client Entered	X

FINDINGS

TARGET PROPERTY INFORMATION

ADDRESS

9407 South H Street
Bakersfield, CA 93307

FINDINGS DETAIL

Target Property research detail.

S H ST

9407 S H ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>	
2017	FRANCES NELSON	Cole Information Services	
2014	FRANCES NELSON	Cole Information Services	
2009	WENDWELL NELSON	Cole Information Services	
2004	WENDWELL NELSON	Cole Information Services	
2002	Nelson Retha J	R.L. Polk Co Publishers	Image pg. A1
	Nelson Wendw ell R	R.L. Polk Co Publishers	Image pg. A1
1999	OCCUPANT UNKNOWN	Cole Information Services	
	WENDWELL NELSON	Cole Information Services	
1994	NELSON, W	Cole Information Services	
1990	Nelson Wendw ell	Pacific Bell Telephone Co	
1986	Nelson Wendw ell	Pacific Telephone	

FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

FLINDERS ST

9119 FLINDERS ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>	
2014	KENT JAYNE	Cole Information Services	
	KENT JAYNE	Cole Information Services	
2009	KENT JAYNE	Cole Information Services	
	JAYCO CONSTRUCTION	Cole Information Services	
	KENT JAYNE	Cole Information Services	
	JAYCO CONSTRUCTION	Cole Information Services	
2004	WINDOW PLUS BY JAYCO CNSTRCTN	Cole Information Services	
	WINDOW PLUS	Cole Information Services	
	JAMES ROBERTS	Cole Information Services	
	WINDOW PLUS BY JAYCO CNSTRCTN	Cole Information Services	
	WINDOW PLUS	Cole Information Services	
	JAMES ROBERTS	Cole Information Services	
2002	Cornett John T Jr 0 A	R.L. Polk Co Publishers	Image pg. A2
	Cornett Kathy T	R.L. Polk Co Publishers	Image pg. A2
	Cornett John T Jr 0 A	R.L. Polk Co Publishers	Image pg. A2
	Cornett Kathy T	R.L. Polk Co Publishers	Image pg. A2
1999	KENT JAYNE	Cole Information Services	
	KENT JAYNE	Cole Information Services	

9201 FLINDERS ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>	
2017	KAMI PAPION	Cole Information Services	
	KAMI PAPION	Cole Information Services	
2004	ROBERT HATFIELD	Cole Information Services	
	ROBERT HATFIELD	Cole Information Services	
2002	Hatfield Robert D & Patricia G E A	R.L. Polk Co Publishers	Image pg. A2

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>	
2002	+ STUB ROAKAVEENDS	R.L. Polk Co Publishers	Image pg. A2
	Hatfield Robert D & Patricia G E A	R.L. Polk Co Publishers	Image pg. A2
	+ STUB ROAKAVEENDS	R.L. Polk Co Publishers	Image pg. A2

9207 FLINDERS ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>	
2014	MICHAEL SERAPIGLIA	Cole Information Services	
	MICHAEL SERAPIGLIA	Cole Information Services	
2009	MICHAEL SERAPIGLIA	Cole Information Services	
	MICHAEL SERAPIGLIA	Cole Information Services	
2004	MIKE SERAFIGLIA	Cole Information Services	
	MIKE SERAFIGLIA	Cole Information Services	
2002	Serapiglia Maria	R.L. Polk Co Publishers	Image pg. A2
	Serapiglia Michael A A	R.L. Polk Co Publishers	Image pg. A2
	Serapiglia Maria	R.L. Polk Co Publishers	Image pg. A2
	Serapiglia Michael A A	R.L. Polk Co Publishers	Image pg. A2
1999	OCCUPANT UNKNOWN	Cole Information Services	
	MICHAEL SERAPIGLIA	Cole Information Services	
	OCCUPANT UNKNOWN	Cole Information Services	
	MICHAEL SERAPIGLIA	Cole Information Services	

9213 FLINDERS ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>	
2017	EZEKIEL CACERES	Cole Information Services	
	EZEKIEL CACERES	Cole Information Services	
2014	JOSE CACERES	Cole Information Services	
	JOSE CACERES	Cole Information Services	
2009	JOSE CACERES	Cole Information Services	
	JOSE CACERES	Cole Information Services	
2004	JOSE CACERES	Cole Information Services	
	JOSE CACERES	Cole Information Services	
2002	Caceres Jose A & Ana J i A	R.L. Polk Co Publishers	Image pg. A2
	Caceres Jose A & Ana J i A	R.L. Polk Co Publishers	Image pg. A2

FINDINGS

9219 FLINDERS ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>	
2017	SARAH CROOKSTON	Cole Information Services	
	SARAH CROOKSTON	Cole Information Services	
2014	SARAH CROOKSTON	Cole Information Services	
	SARAH CROOKSTON	Cole Information Services	
2009	JAMES EUBANKS	Cole Information Services	
	JAMES EUBANKS	Cole Information Services	
2004	ROBERT CHANNELL	Cole Information Services	
	ROBERT CHANNELL	Cole Information Services	
2002	307 Not Verified	R.L. Polk Co Publishers	Image pg. A2
	307 Not Verified	R.L. Polk Co Publishers	Image pg. A2
1999	JAMES EUBANKS	Cole Information Services	
	JAMES EUBANKS	Cole Information Services	

MCKEE RD

1751 MCKEE RD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	GREENFIELD SENIOR CENTER	Cole Information Services
	GREENFIELD SENIOR CENTER	Cole Information Services
2014	GREENFIELD SENIOR CENTER	Cole Information Services
	GREENFIELD SENIOR CENTER	Cole Information Services
2009	COUNTY OF KERN	Cole Information Services
	BEN AUSTIN GREENFIELD SENIOR CENTER	Cole Information Services
	COUNTY OF KERN	Cole Information Services
	BEN AUSTIN GREENFIELD SENIOR CENTER	Cole Information Services
2004	AUSTIN BEN	Cole Information Services
	AUSTIN BEN	Cole Information Services
1999	GREENFIELD SENIOR CENTER	Cole Information Services
	GREENFIELD SENIOR CENTER	Cole Information Services

2055 MCKEE RD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	GABRIEL CRUZ	Cole Information Services

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	GIC TRANSPORT	Cole Information Services
	GABRIEL CRUZ	Cole Information Services
	GIC TRANSPORT	Cole Information Services
2014	GIC TRANSPORT	Cole Information Services
	OCCUPANT UNKNOWN	Cole Information Services
	GIC TRANSPORT	Cole Information Services
2009	GABRIEL I CRUZ TRANSPORT	Cole Information Services
	GIC TRANSPORT	Cole Information Services
	GABRIEL CRUZ	Cole Information Services
	GABRIEL I CRUZ TRANSPORT	Cole Information Services
	GIC TRANSPORT	Cole Information Services
	GABRIEL CRUZ	Cole Information Services
2004	U MONICA	Cole Information Services
	U MONICA	Cole Information Services
1999	GABRIEL CRUZ	Cole Information Services
	OCCUPANT UNKNOWN	Cole Information Services
	GABRIEL CRUZ	Cole Information Services
	OCCUPANT UNKNOWN	Cole Information Services

McKee Road

1751 McKee Road

<u>Year</u>	<u>Uses</u>	<u>Source</u>	
2002	GREENFIELD SENIOR CTR social serv & welfare org	R.L. Polk Co Publishers	Image pg. A3
	GREENFIELD SENIOR CTR social serv & welfare org	R.L. Polk Co Publishers	Image pg. A3

2055 McKee Road

<u>Year</u>	<u>Uses</u>	<u>Source</u>	
2002	Cruz Angelica M	R.L. Polk Co Publishers	Image pg. A3
	Cruz Angelica M	R.L. Polk Co Publishers	Image pg. A3
	Cruz Gabriel I A	R.L. Polk Co Publishers	Image pg. A3
	Cruz Gabriel I A	R.L. Polk Co Publishers	Image pg. A3

FINDINGS

S H ST

9335 S H ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>	
2014	ELVERA NELSON	Cole Information Services	
	ELVERA NELSON	Cole Information Services	
2009	CHRIS CLARK	Cole Information Services	
	CHRIS CLARK	Cole Information Services	
2002	Yoder Ryan K	R.L. Polk Co Publishers	Image pg. A1
	Yoder George H Sr	R.L. Polk Co Publishers	Image pg. A1
	RIDERS music entertainment	R.L. Polk Co Publishers	Image pg. A1
	CALIFORNIA UNION BULL	R.L. Polk Co Publishers	Image pg. A1
	Yoder Ryan K	R.L. Polk Co Publishers	Image pg. A1
	Yoder George H Sr	R.L. Polk Co Publishers	Image pg. A1
	RIDERS music entertainment	R.L. Polk Co Publishers	Image pg. A1
	CALIFORNIA UNION BULL	R.L. Polk Co Publishers	Image pg. A1
1999	CHRIS CLARK	Cole Information Services	
	CHRIS CLARK	Cole Information Services	
1990	Devin S	Pacific Bell Telephone Co	
	Devin S	Pacific Bell Telephone Co	
1986	Devin S	Pacific Telephone	
	Devin S	Pacific Telephone	

9401 S H ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>	
2017	DANNY DEVIN	Cole Information Services	
	DANNY DEVIN	Cole Information Services	
2014	DANNY DEVIN	Cole Information Services	
	DANNY DEVIN	Cole Information Services	
2009	DANNY DEVIN	Cole Information Services	
	DANNY DEVIN	Cole Information Services	
2004	DANNY DEVIN	Cole Information Services	
	DANNY DEVIN	Cole Information Services	
2002	Devin Danny R O A	R.L. Polk Co Publishers	Image pg. A1

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>	
2002	Devin Danny R O A	R.L. Polk Co Publishers	Image pg. A1
1999	DANNY DEVIN	Cole Information Services	
	DANNY DEVIN	Cole Information Services	

9435 S H ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>	
2014	OCCUPANT UNKNOWN	Cole Information Services	
	OCCUPANT UNKNOWN	Cole Information Services	
	OCCUPANT UNKNOWN	Cole Information Services	
	OCCUPANT UNKNOWN	Cole Information Services	
2009	OCCUPANT UNKNOWN	Cole Information Services	
	OCCUPANT UNKNOWN	Cole Information Services	
	OCCUPANT UNKNOWN	Cole Information Services	
	OCCUPANT UNKNOWN	Cole Information Services	
2004	OCCUPANT UNKNOWN	Cole Information Services	
	OCCUPANT UNKNOWN	Cole Information Services	
	OCCUPANT UNKNOWN	Cole Information Services	
	OCCUPANT UNKNOWN	Cole Information Services	
2002	Not Verified	R.L. Polk Co Publishers	Image pg. A1
	Not Verified	R.L. Polk Co Publishers	Image pg. A1
1999	OCCUPANT UNKNOWN	Cole Information Services	
	OCCUPANT UNKNOWN	Cole Information Services	
	OCCUPANT UNKNOWN	Cole Information Services	
	OCCUPANT UNKNOWN	Cole Information Services	
1994	NELSON, HERMAN	Cole Information Services	
	NELSON, HERMAN	Cole Information Services	
	NELSON, HERMAN	Cole Information Services	
	NELSON, HERMAN	Cole Information Services	
1990	Nelson Herman	Pacific Bell Telephone Co	
	Nelson Herman	Pacific Bell Telephone Co	
1986	Nelson Herman	Pacific Telephone	
	Nelson Herman	Pacific Telephone	

FINDINGS

9601 S H ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	TAPIA TOWING	Cole Information Services
	TAPIAS TOWING	Cole Information Services
	CLEAR SMOG	Cole Information Services
	TAPIA TOWING	Cole Information Services
	TAPIAS TOWING	Cole Information Services
	CLEAR SMOG	Cole Information Services
2014	CLEAR SMOG	Cole Information Services
	CLEAR SMOG	Cole Information Services

South H Street

9435 South H Street

<u>Year</u>	<u>Uses</u>	<u>Source</u>	
2002	Not Verified	R.L. Polk Co Publishers	Image pg. A1
	Not Verified	R.L. Polk Co Publishers	Image pg. A1
1990	Nelson Herman	Pacific Bell Telephone Co	
	Nelson Herman	Pacific Bell Telephone Co	
1986	Nelson Herman	Pacific Telephone	
	Nelson Herman	Pacific Telephone	

FINDINGS

ADJOINING PROPERTY: ADDRESSES NOT IDENTIFIED IN RESEARCH SOURCE

The following Adjoining Property addresses were researched for this report, and the addresses were not identified in research source.

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
1751 MCKEE RD	2002, 1995, 1994, 1990, 1986, 1980, 1976, 1975, 1971, 1970, 1965, 1960, 1955, 1951, 1945, 1940, 1935, 1930, 1928, 1922
1751 MCKEE RD	2002, 1995, 1994, 1990, 1986, 1980, 1976, 1975, 1971, 1970, 1965, 1960, 1955, 1951, 1945, 1940, 1935, 1930, 1928, 1922
1751 McKee Road	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1986, 1980, 1976, 1975, 1971, 1970, 1965, 1960, 1955, 1951, 1945, 1940, 1935, 1930, 1928, 1922
2055 MCKEE RD	2002, 1995, 1994, 1990, 1986, 1980, 1976, 1975, 1971, 1970, 1965, 1960, 1955, 1951, 1945, 1940, 1935, 1930, 1928, 1922
2055 MCKEE RD	2002, 1995, 1994, 1990, 1986, 1980, 1976, 1975, 1971, 1970, 1965, 1960, 1955, 1951, 1945, 1940, 1935, 1930, 1928, 1922
2055 McKee Road	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1986, 1980, 1976, 1975, 1971, 1970, 1965, 1960, 1955, 1951, 1945, 1940, 1935, 1930, 1928, 1922
9119 FLINDERS ST	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1986, 1980, 1976, 1975, 1971, 1970, 1965, 1960, 1955, 1951, 1945, 1940, 1935, 1930, 1928, 1922
9119 FLINDERS ST	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1986, 1980, 1976, 1975, 1971, 1970, 1965, 1960, 1955, 1951, 1945, 1940, 1935, 1930, 1928, 1922
9119 FLINDERS ST	2017, 2002, 1995, 1994, 1990, 1986, 1980, 1976, 1975, 1971, 1970, 1965, 1960, 1955, 1951, 1945, 1940, 1935, 1930, 1928, 1922
9119 FLINDERS ST	2017, 2002, 1995, 1994, 1990, 1986, 1980, 1976, 1975, 1971, 1970, 1965, 1960, 1955, 1951, 1945, 1940, 1935, 1930, 1928, 1922
9201 FLINDERS ST	2014, 2009, 2002, 1999, 1995, 1994, 1990, 1986, 1980, 1976, 1975, 1971, 1970, 1965, 1960, 1955, 1951, 1945, 1940, 1935, 1930, 1928, 1922
9201 FLINDERS ST	2014, 2009, 2002, 1999, 1995, 1994, 1990, 1986, 1980, 1976, 1975, 1971, 1970, 1965, 1960, 1955, 1951, 1945, 1940, 1935, 1930, 1928, 1922
9201 FLINDERS ST	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1986, 1980, 1976, 1975, 1971, 1970, 1965, 1960, 1955, 1951, 1945, 1940, 1935, 1930, 1928, 1922
9201 FLINDERS ST	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1986, 1980, 1976, 1975, 1971, 1970, 1965, 1960, 1955, 1951, 1945, 1940, 1935, 1930, 1928, 1922
9207 FLINDERS ST	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1986, 1980, 1976, 1975, 1971, 1970, 1965, 1960, 1955, 1951, 1945, 1940, 1935, 1930, 1928, 1922
9207 FLINDERS ST	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1986, 1980, 1976, 1975, 1971, 1970, 1965, 1960, 1955, 1951, 1945, 1940, 1935, 1930, 1928, 1922
9207 FLINDERS ST	2017, 2002, 1995, 1994, 1990, 1986, 1980, 1976, 1975, 1971, 1970, 1965, 1960, 1955, 1951, 1945, 1940, 1935, 1930, 1928, 1922
9207 FLINDERS ST	2017, 2002, 1995, 1994, 1990, 1986, 1980, 1976, 1975, 1971, 1970, 1965, 1960, 1955, 1951, 1945, 1940, 1935, 1930, 1928, 1922
9213 FLINDERS ST	2002, 1999, 1995, 1994, 1990, 1986, 1980, 1976, 1975, 1971, 1970, 1965, 1960, 1955, 1951, 1945, 1940, 1935, 1930, 1928, 1922

FINDINGS

Address Researched

9601 S H ST

9601 S H ST

Address Not Identified in Research Source

2009, 2004, 2002, 1999, 1995, 1994, 1990, 1986, 1980, 1976, 1975, 1971, 1970, 1965, 1960, 1955, 1951, 1945, 1940, 1935, 1930, 1928, 1922

2009, 2004, 2002, 1999, 1995, 1994, 1990, 1986, 1980, 1976, 1975, 1971, 1970, 1965, 1960, 1955, 1951, 1945, 1940, 1935, 1930, 1928, 1922

TARGET PROPERTY: ADDRESS NOT IDENTIFIED IN RESEARCH SOURCE

The following Target Property addresses were researched for this report, and the addresses were not identified in the research source.

Address Researched

9407 South H Street

Address Not Identified in Research Source

1995, 1980, 1976, 1975, 1971, 1970, 1965, 1960, 1955, 1951, 1945, 1940, 1935, 1930, 1928, 1922

Source Page Images Appendix

S H ST 2002

R.L. Polk Co Publishers

S H ST - HACIENDA DR

192

HOWEOWNER

S H ST Cont'd
 1617 BPA SHOPPE cosmetics & perfumes-retail661-835-8120
 WIG CASTLE wigs toupees & hairpieces661-833-8844
 1619 TIME KEEPER watches-rr661-834-3865
 1621 AU CLARENCE DDS dentists661-833-1556
 MING & H FAMILY DENTISTRY dentists661-833-1556
 + BRADLEY AVE INTERSECTS
 + CUSTER AVE INTERSECTS
 + WILSON RD INTERSECTS
 * ZIP CODE 93304 CAR-RT C019
 2501 SUPER 99 FOOD STORE grocers-retail661-398-1861
 2505 STEP AHEAD INVESTMENTS variety stores661-837-9898
 2509 LEGAL RECOVERY SVC collection agencies661-836-2024
 MEADOWS REALTY real estate661-833-0121
 SUNSET RENT TO OWN rental serv-stores & yards661-833-0120
 2513 ONE HOUR MARTINIZING cleaners661-397-5555
 2515 LITTLE CAESARS PIZZA pizza661-832-3300
 2519 BLACK INFANT HEALTH social serv & welfare org661-835-1900
 WIG BENTON PARK social serv & welfare org661-837-8403
 2601 HANCOCK FABRICS fabric shops661-833-6875
 2705 WESTERN UNION money transfer serv661-831-4785
 2801 Benton Shannon M []661-397-5138
 Mercado Richard Jr661-396-9947
 Montelongo Nefalli661-396-1027
 Murtillo Helicio661-832-3523
 Rogers Stacey J661-827-8242
 Smith Lisa L []661-396-7429
 Thompson Sean661-834-3662
 Tiner Caleb M661-398-2151
 Villarreal Luis661-396-7060
 Walker Rochelle T661-835-0613
 1 - 5 Not Verified (5 Apts)
 6 Nieto Corina M []661-837-1031
 7 - 8 Not Verified (2 Apts)
 9 Pinon Sophia []661-837-4486
 10 Chavez Benjamin R661-831-7446
 11 - 14 Not Verified (4 Apts)
 15 Stafford Ellis C []661-837-4101
 16 - 17 Not Verified (2 Apts)
 18 Wright Kathleen []661-397-4101
 19 - 23 Not Verified (4 Apts)
 24 McKinley Lisa M []661-398-1439
 25 - 27 Not Verified (3 Apts)
 28 Padilla Samuel J Jr []661-835-8321
 29 RIO VISTA APARTMENTS apartments661-397-5091
 30 - 31 Not Verified (2 Apts)
 32 Priddy Wesley C & Rosalynn A []661-831-1635
 33 Swanson Travis N []661-834-2118
 34 - 40 Not Verified (7 Apts)
 2815 @ France Katherine661-837-4203
 @ Harji D R661-396-7543
 Martin Tavarian []661-832-5977
 Smithson Jennifer J []661-834-8339
 1 Martin Idrisana []661-397-4257
 1 Martin Kenyatta D661-397-4257
 2 - 6 Not Verified (5 Apts)
 7 Victors Barbara B []661-834-5498
 8 - 11 Not Verified (4 Apts)
 12A @ Montano Alma D661-837-1848
 12B - 16 Not Verified (4 Apts)
 17 Dana Tracie Q661-832-3806
 18 @ Morales Nancy P661-832-3806
 19 - 20 Not Verified (2 Apts)
 118 Livingston Charlotte A []661-836-9962
 + HENDRICKS LN BEGINS
 * ZIP CODE 93304 CAR-RT C025
 2901 Not Verified
 2915 Jenkins Hoarid L & Mary L []661-397-3459
 2927 Not Verified
 2931 Barnhard Raymond L III []661-396-9797
 2935 Chavez Reynaldo G []661-833-3010
 Chavez Trinidad661-831-3959
 2939 Mayorga Miguel H Jr & Maria G []661-833-3010
 + LACEY ST INTERSECTS
 3131 Inman James T Sr & Dolly F []661-831-3959
 3135 @ Aulakh Manjit K661-397-5279
 @ Godinez Eusebio661-398-8173
 @ Kaur Jaswinder661-397-1824
 Michel Vicente []661-833-3703
 1 - 5 Not Verified (5 Apts)
 6 Singh Simran []661-835-9147
 7 - 12 Not Verified (6 Apts)
 13 All Stephen G []661-835-9147
 13 CHILDREN OF GOD MINISTRIES religious org661-835-9147
 14 - 15 Not Verified (2 Apts)
 16 Kaur Kamaljeet []661-837-4946

S H ST Cont'd
 17 - 22 Not Verified (6 Apts)
 3139 Apodaca Griselda []661-831-9771
 Bailon Christian []661-837-4614
 Constanza Bartha A []661-833-2736
 Constanza Carlos F661-833-2736
 Lal Usha []661-836-3622
 PARK PLANZ APARTMENTS apartments661-835-1769
 Singh Amarjit S []661-831-2764
 @ Singh Rajwant661-398-6036
 1 - 2 Not Verified (2 Apts)
 3 @ Blanton Tania L661-834-6750
 4 Velazquez Jorge V661-834-6750
 4 Velazquez Maria L []661-834-6750
 5 - 10 Not Verified (6 Apts)
 11 Heredia Arnoldo F []661-833-1124
 11 Heredia Norma L661-833-1124
 12 Not Verified
 13 @ Nelson Norman A661-398-5649
 14 - 15 Not Verified (2 Apts)
 16 Guillen Transito A []661-397-5604
 17 Perez Sofia & Peter []661-397-5604
 18 @ Gill Sandeep K661-836-9653
 19 - 22 Not Verified (4 Apts)
 3143 @ Hernandez Leticia661-836-9653
 @ Ibarra Tapia M661-398-1124
 @ Macias Juan C661-835-7537
 @ Nieto Rene661-832-0283
 @ Patterson Edward G661-831-4785
 Patterson Sharilyn661-831-4785
 1 - 5 Not Verified (5 Apts)
 7 Lopez Lydia661-832-0283
 7 Lopez William E []661-832-0283
 8 - 11 Not Verified (4 Apts)
 12 Wilson Steven []661-831-6552
 13 Not Verified
 14 Huelo Eda M []661-827-1669
 15 - 23 Not Verified (9 Apts)
 24 Guevara Victor M []661-834-8803
 3155 @ Marquez Deanna661-396-1635
 * ZIP CODE 93304 CAR-RT C003
 3315 WALGREENS pharmacies661-396-0631
 3535 Basron Baljinder []661-827-0430
 Basron Sakander661-827-0430
 Camarena Eduardo []661-831-4486
 @ Chauhan Charanjot661-831-7446
 Corona Ramon []661-831-8525
 @ Dhalwal Baltea661-397-4101
 @ Dhalwal Harmail661-398-1439
 @ Dhilon Khazan661-398-8125
 Dossanjh Kashmira []661-835-8321
 Fuentes Torres E []661-831-5136
 @ Gonzalez Pablo A661-397-4240
 @ Gonzalez Nanci661-833-9212
 @ Gtejada Juan P661-832-4654
 Hemesillo Lucio []661-831-1635
 @ Jacobo Maria661-831-0117
 Joli Sachu S []661-834-2118
 Khan Akhtar A []661-831-1562
 @ Lara Bernardo661-396-7989
 Miranda Duarte M []661-827-9496
 @ Montagni Ernesto661-397-5197
 @ Olivas Martin661-398-9322
 PARKVIEW APARTMENTS apartments661-832-2009
 Ruiz Christina661-837-0215
 Ruiz Edgardo []661-837-0215
 @ Sangh Ragbir661-835-3504
 Sekhon Satpal S []661-827-1848
 Singh Dinsa G []661-396-7150
 Singh Makhan []661-837-8135
 Singh Man I []661-836-2705
 Singh Ram []661-834-3453
 1 - 3 Not Verified (3 Apts)
 4 Frame Mary L661-836-9962
 4 Frame Robert L []661-836-9962
 6 - 8 Not Verified (3 Apts)
 9 Gonzalez Jose []661-397-3459
 9 Gonzalez Leticia661-397-3459
 10 - 20 Not Verified (10 Apts)
 21 Handegan Dorothea L []661-835-8349
 22 - 23 Not Verified (2 Apts)
 24 Bains Rattan []661-835-8349
 25 Dhalwal Nalinder []661-831-5082
 26 - 44 Not Verified (18 Apts)
 45 Cantu Maria E []661-833-3703
 46 Not Verified
 47 Flores Zaida []661-833-3703
 48 - 63 Not Verified (16 Apts)
 64 Mander Meeka S []661-834-5601
 65 - 81 Not Verified (15 Apts)
 82 @ Mendez Jesus661-835-5967
 83 Brar Rajwag K []661-835-8605
 84 - 89 Not Verified (6 Apts)
 90 Seth Om P661-835-8605
 90 Seth Rajinder K []661-835-8605
 91 Not Verified

S H ST Cont'd
 92 Miranda Miguel A Jr & Alma O []661-397-1062
 93 - 96 Not Verified (4 Apts)
 97 Salamarie Anibal F []661-834-6542
 98 - 101 Not Verified (4 Apts)
 102 Singh Sardar []661-397-0150
 103 - 109 Not Verified (7 Apts)
 110 Ramos Jose D []661-831-2387
 111 Not Verified
 112 Longia Dalbir S []661-831-2387
 113 - 116 Not Verified (4 Apts)
 170 Delbane Michael R []661-831-2387
 3541 Sanchez Anthony A []661-831-2387
 + RAILROAD CROSSES
 3701 WEST VALLEY CONSTRUCTION CO pipe line contractors661-832-9012
 3725 CALIFORNIA WATER SVC CO water & sewage companies661-396-2400
 3801 METAL TEK CO steel-structural661-832-6011
 3951 KURTIS KRAFT BOATS INC boat divs sales & serv661-833-8486
 B IRVIN ICE CREAM WAREHOUSE ice cream & frozen desserts661-396-1100
 C VALLEY SOFTENER SVC water softening equip serv661-831-4547
 4005 SCOTT'S DISCOUNT FOREIGN PRTS auto racing car equip661-397-4202
 4013 FASTRIP FOOD STORE convenience stores661-832-6124
 + WHITE LN INTERSECTS
 * ZIP CODE 93304 CAR-RT C033
 4221 HOMETOWN BUFFET restaurants661-397-9383
 * ZIP CODE 93304 CAR-RT C004
 5205 @ Scioteletti Daniel E & Lisa Y661-832-3722
 2 Gonzalez Gregorio661-324-3722
 2 Gonzalez Miguel A Jr []661-324-3722
 5213 @ Cronkhite Bruce661-832-3722
 1 @ Ortiz Gloria T661-832-3722
 5217 @ Robinson Wanda J661-834-8388
 5301 FAITH CHURCH OF NAZARENE churches661-834-8388
 5305 Bohannon Rodney D []661-834-8388
 * ZIP CODE 93304 CAR-RT C005
 5609 FELLOWSHIP FOR CHRIST churches661-831-7544
 6101 A @ Lemons Elden R661-831-7544
 B Hidalgo Dora661-831-7544
 C Hidalgo Leticia []661-831-7544
 C Pannal Shawn C []661-831-7544
 D - B Not Verified (3 Apts)
 6105 C Sukhpal Singh []661-837-0521
 D Sekhon Gurmil S []661-837-0521
 6109 Alvarez Corina A661-831-3296
 Alvarez Sonia M661-831-3296
 B - C Not Verified (2 Apts)
 6113 Mahal Jagveer S []661-832-0774
 A - B Not Verified (2 Apts)
 C Rodella Johnny []661-832-0774
 D @ Franco Florinda661-832-0774
 D Salazar Enrique P []661-832-0774
 6117 Singleton Angela []661-836-6854
 @ West Darra A661-827-9603
 A - B Not Verified (2 Apts)
 C Henry Charles R []661-836-6854
 D Not Verified
 6201 Walker Ruth A []661-836-6854
 A Thompson Dennis L []661-836-6854
 C Not Verified
 6205 @ Mossman Eliza661-827-0804
 @ Rodewicz Brian661-836-1412
 Salam Mohamed A []661-836-1412
661-396-7519
 B Garza Candy M661-396-7519
 B Garza Mercedes C661-396-7519
 C - C Not Verified (4 Apts)
 6207 @ Richmond Jan661-836-7519
 6209 A Not Verified
 B @ Rascon Joanna661-831-1929
 C Not Verified
 D Sianez Maria J310-204-3731
 D Sianez Raul []310-204-3731
 6215 @ Delahuerta Ruby661-835-8754
 A ADMIRALTY SQUARE APARTMENTS apartments661-833-0819
 A Holcomb Brian C & Patricia A []661-396-0152
 B - D Not Verified (3 Apts)
 * ZIP CODE 93307 CAR-RT C019
 8801 LIBERTY CHRISTIAN CRT churches661-397-4111
 9335 CALIFORNIA UNION BULL RIDERS music-entertainment661-831-1396
 Yoder George H Sr661-831-1396
 Yoder Ryan K []661-831-1396
 9401 Devin Danny R []661-831-3245
 9407 Nelson Retha J []661-831-3245
 Nelson Wendell R []661-831-3245
 9435 Not Verified

S H ST Cont'd
 9633 LEISURE TIMES RV recreational vehicles661-397-9711
 + CURNOW RD CONTINUES
 * ZIP CODE 93313 CAR-RT R010
 10604 Not Verified
 + HOUGHTON RD INTERSECTS
 * ZIP CODE 93313 CAR-RT R007
 13136 @ Wallace Brian M661-845-0280
 Wallace Lorie661-845-0280
 13500 Borba Jana661-845-2121
 @ Borba John A661-845-2121
 13700 Kindell Mark G & Debra J []661-845-2121
 13900 Delagarza Jesus []661-831-2062
661-831-2062
 14200 Forbus Erik C661-831-6467
 Forbus Robert C []661-831-6467
661-831-6467
 14424 Woodfin Matthew C []661-835-1147
661-835-1147
 14520 Jauch Forrest W []661-831-2387
 + BEAR MOUNTAIN BLVD BEGINS
 BUSINESSES 80 HOUSEHOLDS 411
 HACHECKER RD (BAKERSFIELD)-FROM 8999
 KAMI AVE SOUTH661-845-2440
 * ZIP CODE 93307 CAR-RT R024
 7317 Yanez A661-845-2440
 Yanez Bobby []661-845-2440
 + MOUNTAIN VIEW RD INTERSECTS
 * ZIP CODE 93307 CAR-RT R006
 7700 Not Verified
 + MCKEE RD ENDS
 + COLLISON ST INTERSECTS
 HOUSEHOLDS 2
 HACHECKER RD (LAMONT)-FROM 8999 FAR
 HILLS AVE SOUTH661-845-2926
 + COLLISON ST CONTINUES
 + PANAMA RD INTERSECTS
 * ZIP CODE 93241 CAR-RT C003
 9700 Morales Leticia661-845-2926
 Morales Noel []661-845-2926
 9704 Rubin Mary H []661-845-2926
 9708 @ Salinas Sergio661-845-2926
 9712 Not Verified
 9716 Martinez Ramon H & Marcella []661-845-2926
 9800 Marroquin Concepcion M []661-845-2926
 Valadez Concepcion M []661-845-2926
 Valadez Moises661-845-2926
 9804 Delgado Miguel S & Teresa G []661-845-2926
 9808 Not Verified
 9812 @ Garcia Concepcion661-845-3217
 9904 @ Jimenez Etraim G661-845-0892
 9908 Garrido Bertha661-845-0892
 Garrido Gilberto []661-845-0892
661-845-0892
 9912 @ Perez Julian661-845-0892
 9916 Not Verified
 + PARADISE RD INTERSECTS
 10000 Prieto Gloria L []661-845-0892
 Prieto Maria D661-845-0892
 10004 Cantu Ernest C []661-845-0892
 Cantu Jose S661-845-0892
 10008 @ Mantaghi Michael661-845-2421
 Tiapa Francisco C []661-845-2421
 + BONITA RD ENDS
 10100 Gonzales Manuel P & Margaret []661-845-3916
 10108 Hachecker Arturo []661-845-4408
 10112 Gomez Deanna D []661-845-4408
 10120 @ Fuentes David661-845-4296
 Murtillo Ezequiel H661-845-9508
 @ Murtillo Gloria H661-845-9508
 @ Palma Sabina661-845-3954
 1 - 7 Not Verified (7 Apts)
 10121 Rodriguez Jesus []661-845-2478
661-845-2478
 + WINTER LN BEGINS
 + ART LN ENDS
 10200 Not Verified
 10204 Reyex Maria A []661-845-7251
 10205 Gomez Josie P661-845-7251
 Gomez Julian S Jr []661-845-7251
 10208 Ford Riley & Ola J []661-845-1153
661-845-1153
 10209 Osorno Angel J []661-845-2653
661-845-2653
 Osorno Juan661-845-2653
 10212 - 10214 Not Verified (3 Hses)
 10217 Torio Agustin M []661-845-3304
661-845-3304
 10218 Dominguez Marion []661-845-5937
661-845-5937
 10300 @ Lopez Pedro A661-845-2132
 10301 452 Santiago Carlos []661-845-2132
 10304 A @ Rivera Luzdelia D661-845-2132
 C @ Espino Henry661-845-2132
 E Castruita Mercedes []661-845-2132
 E Castruita Ruben D661-845-2132
 10312 Hill Dale A []661-845-4177
 Hill Mary B661-845-4177
 10316 Alvarez Luis & Mariana M []661-845-4177
 10317 1 - Not Verified (5 Apts)
 10340 Dill Aurdine661-845-4177
 Dill Ralph W []661-845-4177
 + HOPE LN INTERSECTS
 10400 @ Duarte Neftali661-845-4177

HACHECKER RD Cont'd
 10401 Fernandez Cecilia []661-845-0448
 Garza Jesus G661-845-0448
 Fernandez Rosealia661-845-0448
 10404 Not Verified
 10409 Deramus Linda M []661-845-0448
 Deramus Rusty661-845-0448
 10412 Colon Erasto R Jr []661-845-0280
 Colon Luz M661-845-0280
 10416 Garza Etraim B []661-845-2121
661-845-2121
 Trujillo Robert []661-845-2121
 + ABRQUEZ DELIA P661-845-4187
 Abarquez Delia P661-845-4187
 Abarquez Donicio Jr []661-845-4187
 10424 @ Vargas Roberto []661-845-4187
 10425 Toro Jesus B []661-845-4187
 Toro Martin []661-845-4187
 10428 @ Perez Anita661-845-4187
 10429 Not Verified
 + HALL RD INTERSECTS
 + MARK AVE ENDS
 10606 Not Verified
 10611 Castruita Angelica661-845-2121
 Castruita Patricia M []661-845-2121
 + SECURE RD INTERSECTS
 10701 Aguilera Saul A []661-845-8927
 Castilla Benjamin []661-845-4316
 Contreras Josefa []661-845-5990
 10723 KINGDOM HALL-JEHOVAH'S WITNESS churches661-845-0500
 + JEWELL AVE ENDS
 10807 Lawhorn Alva L []661-845-1733
661-845-1733
 Lawhorn Faye661-845-1733
 10810 Waide Lori Y661-845-3057
 Waide Ruben F []661-845-3057
661-845-3057
 10821 Not Verified
 + FAR HILLS AVE ENDS
 BUSINESSES 11 HOUSEHOLDS 76
 HACHITA CT (BAKERSFIELD)-FROM 3706
 WILCOX WAY661-836-8256
 * ZIP CODE 93309 CAR-RT C033
 7400 Ochoo Dominic J []661-836-8256
 7401 Wegman Rebecca L []661-836-8256
 7404 Curran Beatrice E []661-836-8256
661-836-8256
 7405 Smith Margarita661-836-8256
 @ Smith Rodger W []661-397-4416
 7408 Martin Perry R []661-397-4416
 Martin Regina R661-397-4416
 7409 Neal Xandria R661-398-8896
 7412 Atkinson Robert L Jr []661-398-8896
 7413 Flindro Ronald L & Kimberly N []661-398-8896
661-398-8896
 7416 Not Verified
 7500 Grayson Courtney661-845-0892
 Grayson Nicola K []661-845-0892
 7501 Kirkley Ricky D & Michele E []661-845-0892
 7504 @ Alvarez Jerardo S []661-845-0892
 Alvarez Rocio661-845-0892
 7505 Malley Edward J & Diane M []661-845-0892
 7508 Watters Herbert B661-845-0892
 Watters Tracie661-845-0892
 7509 @ Castillo Francisco J661-845-0892
 Castillo Noremi661-845-0892
 7512 @ Lester William C & Valerie661-845-0892
 7513 Baeder Halner []661-845-0892
 7516 Calderon Esteban P []661-845-0892
661-845-0892
 7517 Not Verified
 HOUSEHOLDS 18
 HACIENDA DR (BAKERSFIELD)-FROM 2601
 LOTUS LN EAST661-832-3806
 * ZIP CODE 93307 CAR-RT C014
 800 Wiley Alvin []661-832-3806
 Wiley Elwin E661-832-3806
 A Collins Gerold D661-832-3806
 A Collins Marretta J []661-832-3806
 803 Quinney Cornelious I []661-832-3806
661-832-3806
 Quinney Maddie661-832-3806
 805 Killebrew Sandra A []661-832-3806
 806 Not Verified
 807 Sumlin Kimberly J []661-832-3806
 808 Acousta Alfonso A []661-832-3806
 Acousta Maria E661-832-3806
 809 Carter Ethel B & Ellis J []661-832-3806
661-832-3806
 810 Wofford Stephanie R661-832-3806
 Wofford Steven N Sr []661-397-0969
 812 Dickson Marcus E661-397-0969
 Dickson Willie J []661-397-0969
 833 Not Verified
 901 Jones Louis L []661-832-3806
 Jones Marlene661-832-3806
 903 Stewart Annette L & Michael A []661-832-3806
 902 Dodd Ora M []661-832-3806
 907 Webber Angela Y []661-832-3806
 Webber Eligh661-832-3806
 908 Miller Rene []661-832-3806
 909 Billingsly Beverley A []661-832-3806
 910 Mitchell Paul D []661-832-3806
 911 Hernandez Mardonio []661-832-3806
 Hernandez Maria I661-832-3806
 913 Garcia Epifania E661-832-3806
 Garcia Felix E []661-832-3806
 1001 Lucas Joe W []323-936-5170
 1003 Thompson John L []323-936-5170
 1005 Billingsly James E323-936-5170

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NEW NEIGHBOR

FISHERING DR Cont'd
Williams Tolbert Sr 2 661-833-2510
4821 Not Verified
4824 Melton Arnold S 1 661-831-4455

4825 Moore Gregory A 6
4829 Not Verified
FIORITO ST INTERSECTS
BUSINESSES 1 HOUSEHOLDS 63

FJORD ST (BAKERSFIELD)-FROM 1401 STINE RD WEST
ZIP CODE 93309 CAR-RT C020

4300 A 4 Baskerville Meshia C
B Jefferson William A 1 661-399-9175
C Mookie Edward M 1 661-399-9175
D Fragoaso James R 661-832-2057
D Fragoaso Samantha J 661-832-2057
E Carrera Jesus J 661-833-0993

4320 Dunn Rebecca D 661-833-0993
A Kincannon Minhthanh T 2
B Kaing Asher D 2
B Kaing Mimosa
C Hicks Teresa L 2
D Hernandez Guerrero E 661-832-7476

E Shell Leticia M
E Shell Michael C 2
4330 Wearns Tamara E 6
A Not Verified (6 Apts)
4400 B Gago David A 661-834-1459
B Gago Katie Q 661-834-1459
C Not Verified
D Gutierrez Naomi S 2 661-836-2580

4402 Davidson David W 2
4420 A Not Verified
B Lucas Lester & Judy 1 661-831-1157
C D Not Verified (2 Apts)
E Drake Jillian M 2 661-833-9487

4430 Slevens Samantha A 2 661-398-8378
A 4 Ewers Lakeisha 661-834-9269
A 4 Jacobs Crystal
B Not Verified
C Cross Heidi K 2
D Owens Richard D 2
E Bastion Roger J & Margaret L 2 661-397-0645

+ MCDONALD WAY INTERSECTS
HOUSEHOLDS 34

FLAGSTAFF WAY (BAKERSFIELD)-FROM 7899 KANDARIAN WAY SOUTH
ZIP CODE 93309 CAR-RT C029

3305 Gonzales Roger M & Lupe T 1 661-833-9812
3309 Collier Michelle 1
3313 Chavez Jose R & Veronica M 1 661-833-4032
3401 Decker Brandon C 2
3405 Hanson Evelyn R 2
Hanson Rolfe A
3408 Not Verified
3409 McCann John B & Melanie T 2 661-837-8172

3412 Grider Cynthia
Grider Grant G 2
G Reed Cynthia M
+ GALLUP DR INTERSECTS
HOUSEHOLDS 9

FLAT IRON CT (BAKERSFIELD)-FROM 4403 TEMPLETON ST
ZIP CODE 93312 CAR-RT R019

12100 4 Marquez Angel A 4
Marquez Julia A
12101 Lackey Sandra D
Lackey Steven 4
12104 Blaquette John B 2 661-587-0253
Blaquette Sandra L 661-587-0253

12105 Aguilera Denise
Aguilera Manuel J 4
12108 Barron April S
Barron Rudy A Jr
12109 4 Finestra Vista
Sarmiento Florencia
12113 4 Campbell Michael & Diane 661-587-3905

12203 Balancourt Randy
Balancourt Vincent M 4
12206 Audley Anji
Audley Jason R 4
12207 4 Williams Megan 4
12210 Harrison Kelly
Harrison Kevin D 4

HOUSEHOLDS 12

FLEETWOOD WAY (BAKERSFIELD)-FROM 2899 CARDINAL AVE NORTH
ZIP CODE 93306 CAR-RT C013

3600 Dorado Hector G 1 661-872-3590
3601 Manzer Scott M 2 661-872-3590
3606 - 3607 Not Verified (2 Hses)
3612 Valdez Paul G & Mary K 2 661-871-1682

FLEETWOOD WAY Cont'd
3613 - 3618 Not Verified (2 Hses)
3619 Wilson Hester R 1 661-872-3590
Wilson Ruth H
3700 Romero Tammy L 2
3701 - 3706 Not Verified (2 Hses)
3707 Shipp Marshelle R 2
3712 Diaz Vera M 2
3713 Gilliam Lindsey
Gilliam Mary E 2
3719 Villanueva Phillip R & Diane M 1 661-872-3590

+ CENTURY DR INTERSECTS
HOUSEHOLDS 15

FLEUR ST (BAKERSFIELD)-FROM 4399 WENDY AVE NORTH
ZIP CODE 93306 CAR-RT C018

3100 Munoz Rodolfo G Jr & Joyce C 2
3101 Toscano Francisco D Sr 2 661-336-2019
Toscano Shelly M 661-336-2019
3104 Not Verified
3105 Phillips Barry L & Linda A 2 661-871-8091
3200 Scott Ollie R 2
Scott Regina L
3201 Rodriguez Mario A & Rosalie G 2
3204 Hernandez Louisa D 2
3205 Espinoza Pete G 2
3208 Johns Ariene L 2
3209 Merritt Claudia B 2
3212 K SWANSON CO real estate
Swanson Kenneth N & Darla J 2 661-322-7447
661-872-3935

3215 Graves Leon E & Danielle L 2 661-871-4944
3216 Collins Graig D & Rebecca L 1 661-871-4944
+ BREWER AVE INTERSECTS
BUSINESSES 1 HOUSEHOLDS 13

FLICKER DR (BAKERSFIELD)-FROM 2301 ORIOLE ST WEST
ZIP CODE 93309 CAR-RT C045

4200 Estrada Maria I 661-832-8163
Estrada Miguel A 1 661-832-8163
4204 Perez Fernando M 661-832-8163
Perez Smiley M III 2
4208 4 Owens Jeffrey W 661-396-9625
4212 Harkins Thomas E & Emmey E 2 661-832-1213
Henderson D K 2 661-832-1213
Henderson Wendi E 661-832-1213

4300 Lyons Lee I & Karin F 1 661-832-1213
4303 Arriaga Mary
Arriaga Tomas 2
4304 Francis Alfred W Jr 2
4308 Grant Gordon N 1 661-833-9812
Grant Merle M 661-833-9812
4312 Inlow David J 1 661-833-4032
4400 Garza Jaype L 661-396-1681
Garza Mario D 2 661-396-1681
4404 Chavez Daniel A 2
Chavez Denise N
4408 Alexander Paul M & Peggy J 2 661-832-1399

4412 Richwood Ramona J 2
+ SANDPIPER RD BEGINS
4500 Guzman Melinda R
Guzman Minerva N 2
+ STINE RD INTERSECTS
4600 Monterroza Maria G
Monterroza Miguel A 2
4601 Not Verified
4604 Kiser Danielle O 7
+ HASTI ACRES DR INTERSECTS
4700 Williams Glenn E & Susan C 1 661-832-7294
4704 Kamehaiku Laila M 2 661-832-7294
4707 Evans Clarence E Jr 2 661-834-2686
Evans Nancy J 661-834-2686
4708 Olejnik Eugenia L 661-836-1721
Olejnik John M 1 661-836-1721
4712 Ayap Juliana V 1
4713 Howes Ardell D 2 661-832-3673
Howes Wanda L 661-832-3673
4716 Albright Roy E & Betty B 2 661-832-1521
4719 4 Payton Heidi 4
4725 Not Verified
4731 Graham Dion D 661-397-5605
Graham Roger A 2 661-397-5605
+ CANTER WAY ENDS
HOUSEHOLDS 28

FLINDERS ST (BAKERSFIELD)-FROM 1599 MORNINGTON AVE SOUTH
ZIP CODE 93307 CAR-RT C019

9119 Cornett John T Jr 4
Cornett Kathy T
9201 Hatfield Robert D & Patricia G 2 661-871-2369
+ STUB OAK AVE ENDS
9207 Serapielgia Maria
Serapielgia Michael A 2

FLINDERS ST Cont'd
9213 Caerres Jose A & Ana J 1 661-396-9140
9219 307 Not Verified
HOUSEHOLDS 5

FLINT DR (BAKERSFIELD)-FROM 3099 RINCON PL NORTH
+ KENT DR CONTINUES
ZIP CODE 93306 CAR-RT C032

2107 4 Morgan Julie 4
2110 Diehl Chris S 2
Diehl Pamela M
2113 B J CELLULAR telephone consultants 661-871-2502
Meyer Bernard J & Ruby J 2 661-871-3335
2114 Wolf Franklin R & Wanda L 2 661-872-2595
2125 Not Verified
2125 Guantes Jerry L Sr & Sheryl D 2 661-873-0559
+ RINCON PL ENDS
2206 Spellman William G & Kim L 2 661-872-0280
2210 Cramer Phyllis D 1 661-871-6347
2216 4 Montijo Josephine W 4
Montijo Manuel
+ JADE AVE INTERSECTS
2300 4 Bumgarner Michael
2304 Cristobal Johnny W 2
2305 King Billy D & Willena L 2 661-871-3706
2308 Hayes Margaret M 2 661-871-1116
Van Kirk John D
2309 Not Verified
BUSINESSES 1 HOUSEHOLDS 15

FLINT HILLS DR (BAKERSFIELD)
ZIP CODE 93313 CAR-RT R035

2917 4 Mendoza Jesus 4
Mendoza Maria
HOUSEHOLDS 1

FLINTRIDGE DR (BAKERSFIELD)-FROM 6401 NASSAU CT NORTH
ZIP CODE 93306 CAR-RT C029

2900 Behill Juanita D
Behill Patrick M 2 661-871-8497
+ COLLEGE AVE CONTINUES
2901 Buckner Fred L & Gladys 2 661-871-8859
2904 Hennig Arden A & Mary J 1 661-871-8859
2905 Robles Ricardo A 2
+ JUANIATO CT BEGINS
2908 Not Verified
3000 Kandaian Rachel L 2
3004 Not Verified
3008 Collins Robert S 1 661-871-2620
Collins Sheila M 661-871-2620
+ RIDGETOP TER ENDS
3101 4 Chmura John L Jr & Kathleen A 4 661-872-7890
Mahoney Mary K
3104 Cueto Marielma M
3105 Murfin Don L & Lois R 1 661-872-5399
3108 Tohm Alberta J 2
Tohm Gordon L
3109 Wyatt Barbara A 1 661-871-9692
Wyatt Bradley
3200 Cueto Anthony M III 1 661-871-9692
3201 Gillett Doris C 661-871-9692
Gillett John B 2 661-871-9692
3204 Cochran Des Melvin L 1 661-871-2974
3205 Hawley Alexandra R 2
Young Gary 4
3208 Harmer Kenneth R 2
Harmer Marianne
3209 Smith Mark A & Debra L 1 661-871-4268
+ COUNTRY CLUB DR INTERSECTS
3700 Black Betty J 2
3800 4 Jordan Lawrence H Jr 4
Jordan Lori L
3801 Thebeau James H & Cindy A 1 661-872-2184
3817 4 Alejo Salud C & Rogelio C 4
+ BROADMOOR CT ENDS
3900 Not Verified
3911 Alvear Juan B 1 661-872-2184
3916 Rhodes Dee E
Rhodes Jeffrey K 2
+ NASSAU CT BEGINS
4000 Not Verified
4001 Odell Michael L & Linda K 1 661-872-2184
4011 Dixon Mindy A 2
4014 Pascal Stephanie E 2
4019 Hartenberger Arthur H & Linda J 2
4024 Kundert Michael R & Michelle D 2
+ MIDWICK CT BEGINS
4100 Reed Donald L & Kathy A 2
4116 Souza Barbara C
Souza Richard L 2
4121 Not Verified
4200 Poh Sian S
Poh Sue P 2
4201 Boles William P & Edna M 1 661-871-2369
Brown Glen 661-871-2369

FLINTRIDGE DR Cont'd
4215 Sandrini Richard B 2 661-872-0120
Sandrini Stacielynn L 661-872-0120
4223 Marsh George J & Dell L 2
4241 Jenkins Jamie N 2
Jenkins Margaret M
+ TROON CT BEGINS
4255 Trino Carolyn B 661-871-1242
Trino James P 661-871-1242
4300 Johnston Dennis B 2 661-871-1053
Johnston Stacey L 661-871-1053
4301 Not Verified
4315 Mitchell Diane D 2
4331 Arnold Carolyn D
Arnold Olen W 2
4340 Nyberg Kenneth L 2 661-871-6333
Nyberg Prof K 661-871-6333
4350 Stull Boyce L & Lena M 2
4355 Myers Doris M
Myers Louis C 2
4360 Prasser Steven R & Suzanne 2 661-871-7038
HOUSEHOLDS 51

FLORAL DR (BAKERSFIELD)-FROM 1999 BINGHAM AVE
ZIP CODE 93305 CAR-RT C020

2502 Edwards Alicia 661-873-1302
Edwards Deborah O 1 661-873-1302
2504 Delatorre Jaime M & Margaret 2 661-873-1302
2505 Rodriguez Victor G & Veronica E 2
2508 Rasmussen Jillian M 661-873-1496
Rasmussen Jodi L 661-873-1496
2509 Not Verified
2512 Rios Rey 4
2513 Not Verified
2515 Marrulo Roy R 2 661-871-4149
Torres Berta 2 661-871-4149
Torres Elizandro 661-871-4149
2600 Hall Donald E 2 661-871-7144
2604 Bell Della M 2
2608 McKnight Roland J & Elizabeth S 2 661-871-8497
2612 Alvarado Albert T & Martha P 2 661-871-8859
2613 - 2617 Not Verified (3 Hses)
2700 Quiroz Felicitas P 2 661-872-9884
2706 Gonzalez Mary 2 661-872-9884
HOUSEHOLDS 18

FLORAL PARK CT (BAKERSFIELD)-FROM 5903 GLACIER SPRINGS DR
ZIP CODE 93313 CAR-RT C007

5900 KID-ING-AROUND party sup-
ply rental 661-832-7516
Sandy Christine
Sandy Milburn H 2
5905 Not Verified
5909 Jolley Matthew P & Rhonda R 2 661-836-8638
6002 Bramlette Richard D & Darla L 2
6003 Lawson Jacalyn V 2
6006 Parker George E Jr & Denise L 2 661-836-9465
6007 Cabral Frank C & Linda C 2
BUSINESSES 1 HOUSEHOLDS 7

FLORENCE LN (BAKERSFIELD)-FROM 90 TORREY PINE LN NORTH
ZIP CODE 93308 CAR-RT C019

282 David Michael P 2
283 Schultz John S 1 661-393-1604
284 - 285 Not Verified (2 Hses)
286 Fonkert Peter J & Dorothy N 2 661-399-6275
287 Not Verified
288 McClanahan Ada R
McClanahan Ruth A 1 661-325-2236
289 Not Verified
290 Denny Sara M 2
291 - 294 Not Verified (2 Hses)
295 Difley Lester L & Carol L 2
296 Calderon Juan C 661-393-0249
Calderon Kathleen L
297 Walker David S 1
298 Not Verified
299 Tinsley Barbara C
Tinsley Raymond T 2
300 Dowda Jackie E Sr & Bobbie C 2 661-393-5344
301 Cox Stella M 2
302 Lahorque Michael J 2
303 4 Trimarchi Dennis 4
+ KINGS LN INTERSECTS
HOUSEHOLDS 20

FLORENCE ST (LAMONT)-FROM 12811 RALPH AVE EAST
ZIP CODE 93241 CAR-RT C004

7700 Enriquez Christina R 2 661-845-6250
7701 1/2 Tate Henry J 2 661-845-0160
7704 Jimenez Judy 4 661-845-2278
Jimenez Recto T 661-845-2278
HOUSEHOLDS 20

FLORENCE ST Cont'd
7705 4 Rodas Oscar 661-845-4293
7706 Not Verified
7708 Melendez Leopoldo F 2
7709 Altamirano Pablo A 1 661-845-1693
7712 4 Galvan Leticia
Ochoa Orelia & Jose L 2
7713 - 7716 Not Verified (2 Hses)
7717 Hernandez Maria L 2 661-845-1693
7720 Gabriel Otilia 2 661-845-8130
7721 Ahumada Juan E & Eida 2 661-845-8130
7800 Viramontes Maria G 2
Viramontes Phillip D
7801 Not Verified
7804 English Ruth M 2 661-845-3318
7805 Campos Valentin Q 661-845-0440
Chocoteo Leticia
Chocoteo Valentin C 2
7808 Vidal Antonio 2 661-845-3195
7809 Ochoa Antonio A & Dolores B 2 661-845-2913
7812 - 7813 Not Verified (2 Hses)
7816 Saldana Janie Q 2
Saldana Monica L
7817 Alvarez Juan
Alvarez Luis 2
7820 Altamirano Esteban R 2
Altamirano Federico
7821 4 Gonzalez Susana 661-845-4726
7900 Falomir Rodolfo Q 661-845-3658
Izquierdo Gloria
7901 4 Bautista Francisco T 4
Bautista Maria A
7909 Bodoy Maria G 2
7905 Altamirano Noemi
Altamirano Steve R 2
7906 Ayala Martin S 2 661-845-1334
7908 Flores David
Flores Rosa Y
7909 Cortez Miriam Y
Cortez Pedro Y
+ PARISH AVE INTERSECTS
HOUSEHOLDS 36

FLOWER ST (BAKERSFIELD)-FROM 1699 ALTA VISTA DR EAST
+ UNION AVE CONTINUES
ZIP CODE 93305 CAR-RT C007

8 Sledge Homer A 2 661-322-0376
9 Gonzales Mario A 1 661-325-9626
Gonzales Sherry L 661-325-9626
11 Forest Amy R
Forest Derek R 2
12 Reese Victor G & Marilyn J 2 661-322-6737
15 Hagenston Matt Q 661-322-6737
17 4 Osorio Luis R 4
Osorio Yesenia
18 Moore John R 2
Moore Nicole M
20 Meagher Robert L 2 661-325-5630
27 Flores Homer O & Susan M 1 661-325-5630
Horton Helen A 2
Horton Michael J
31 Flores Catherine C 2
+ STOCKTON ST INTERSECTS
100 7 Dieter Mary E 2
101 Magana Debra L 2
105 Childers Richard E & Patricia 1 661-325-8078
106 Brower Merry C 2
110 Payne Debra
Payne Kenneth B 2
111 Not Verified
114 Cassidy Cornelia E 2 661-323-3270
115 Morris Patty A 2
118 Navarro Juan R 2
119 Duncan Gianter J 661-869-2798
121 Warren Lesa A 2 661-631-0663
122 Keolker Judith A 2
123 Montcinco Roxanne M 1 661-336-0362
125 4 Nordland Chip 4 661-631-8427
126 Roe Gladys M 2
130 4 Fenstermaker Randy L 4 661-325-2236
131 Miller Scott 2 661-631-0341
+ SACRAMENTO ST ENDS
200 Not Verified
201 Morin Audra L 2 661-325-4824
204 4 Covey Glen 4
207 McAlister Danny M 2 661-324-0757
McAlister Phyllis J 661-324-0757
208 Pearson Nidia C 661-327-2821
Pearson Timothy T 2 661-327-2821
211 Fanucchi Vincent D 2 661-325-4113
212 Not Verified
214 McMahon Bill
McMahon Lori L 2
215 McLean Larry E & Faith A 2 661-325-6212
219 1/2 Not Verified
222 Sumlin La T 2 661-864-0519
223 Kotarac John P & Edith L 2 661-633-9335
227 Not Verified
228 Covington Joseph W 2
230 Clapper A F 2 661-323-2232
231 4 Balfour Heather 4

McKee Road 2002

276

HOWEOWNER

MCGREGOR AVE - MCNUTT ST

MCGREGOR AVE Cont'd
 1001 Davis Bill F & Rosie L [2] ▲
 1004 Moore James G & Lori D [2] ▲
661-391-0720
 1005 Tips N T [2]661-392-8821
 1008 Denson Dorothy M [2] ▲
 1009 Zimmerman Douglas L & Gloria J [2] ▲
661-399-7971
 1012 Not Verified
 1013 Saunders Dan Sr [2] ▲
 1016 Roussel Earl O & Sherry L [2] ▲
661-399-6266
 HOUSEHOLDS 24

MCINNES BLVD (BAKERSFIELD)-FROM 2601 SAINT GOBAIN ST
 * ZIP CODE 93311 CAR-RT C003
 9100 Patel Bhavna B [2]661-665-1408
 Patel Bippli661-665-1408
 9101 Kuupsteen Mathilda E [2] ▲
 9105 Kinison Dana S [2] ▲
 Kinison Suzanne
 9109 Not Verified
 9113 Carosella Tom L & Lisa M [2] ▲
 Joslin Jeffrey E [2] ▲
 Joslin Kathryn
 Miller Brenda
 9117 Barker William D [2] ▲
661-664-7248

9201 Freshwater John G [2] ▲
 Freshwater Patricia J
 9205 Not Verified
 * CHINON ST INTERSECTS
 9208 Vargas David V & Paula D [2] ▲
 9209 Spaulding Edward R & Anne A [2] ▲
 9213 CREATIVE MEMORIES scrapbook albums & supl661-665-2626
 * NANTES WAY INTERSECTS
 * SCARLET OAK BLVD INTERSECTS
 BUSINESSES 1 HOUSEHOLDS 12

MCKAYE CT (BAKERSFIELD)
 * ZIP CODE 93311 CAR-RT C003
 2600 Stevens Gary E & Evelyn E [2] ▲
 * WESTWOLD DR CONTINUES
 2601 Ochipinta Brandi
 Warren Christine B [2] ▲
 Warren Robert B
 2604 Garrison Scott D [2] ▲
661-664-7878

2605 Melton Charles D & Penny A [2] ▲
 2608 Shelton Steven K & Nancy A [2] ▲
 2609 O Stewart Hosey W Jr [2] ▲
661-663-8681
 Stewart Yorena661-663-8681
 2700 Folger Jeffrey T & Marcela S [2] ▲
 2701 Alburger Timothy R & Diane A [2] ▲
 2704 Rangel David G [2] ▲
 Rangel Joey M
 2705 Kempner William C & Bonnie D [2] ▲
 2708 Not Verified
 2709 Gonzales Ralph L Jr & Ann M [2] ▲
 HOUSEHOLDS 13

MCKEE RD (BAKERSFIELD)
 * ZIP CODE 93307 CAR-RT C003
 96 Not Verified
 100 Edwards Wanda J [2] ▲
 1 - 2 Not Verified (2 Apts)
 110 HARVEST FREEWILL BAPTIST CHURCH churches661-831-3639
 140 O Leonor Oscar661-832-9485
 O Ramos Antonio
 1 - 2 Not Verified (2 Apts)
 150 Padron Maria D
 Padron Miguel [2] ▲
 160 Altamirano Frederico [2] ▲
 170 Lemons Billy J [2] ▲
 Lemons Christina M
 * HUDSON PL INTERSECTS
 201 MC KEE PRIMARY SCHOOL schools661-837-6040
 205 MC KEE INTERMEDIATE SCHOOL schools661-837-6060

212 Alvarez Alberto A Sr [2] ▲
 Alvarez Yuridia661-396-9714
 216 Davis Jean T [2] ▲
 222 McNatt Johnny B [2] ▲
 McNatt Lela J661-397-8167
 250 O Flores Francisco E
 C Ray Gary L Jr [2] ▲661-832-2314
 C Ray Nicholas G661-832-2314
 253 Carey Bernard T
 Carey Tim [2] ▲
 298 Stanley Donna V [2] ▲
 300 Davie Lewis A & Edna L [2] ▲
661-832-7051

320 Moore Christina A [2] ▲
 Moore John B
 330 Lawrence Dan J & Robin R [2] ▲
 340 - 346 Not Verified (2 Hses)
 350 Jimenez Rosa I [2]661-835-1019
 Salazar Rosa I [2]661-835-1019
 * OPAL ST INTERSECTS
 400 MC KEE ROAD BAPTIST CHURCH churches661-831-5950
 412 Mainus Jerry L & Linda A [2] ▲
661-832-8374

* VIOLA ST BEGINS
 500 Marton Micha L [2] ▲
 * YVONNE ST BEGINS

MCKEE RD Cont'd
 600 Ortega Esteban J Jr [2] ▲
661-837-4113
 Ortega Orelia T661-837-4113
 655 O Larrea Melvilledes
 690 GREENFIELD FIRST SOUTHERN BAPT churches661-833-9852
 * SHANNON DR INTERSECTS
 * ZIP CODE 93307 CAR-RT C019
 710 McMahon Butch R661-836-1021
 O McMahon Vernon R
661-836-1021
 White Wanda F [2]661-834-7551
 790 Brown Beverly [2]661-832-7863
 * GREENFIELD PARK DR ENDS
 800 Richardson Albert R
 Richardson Lindie M [2] ▲
 870 Guzman Edibel661-398-8662
 Guzman Sergio R [2] ▲
661-398-8662

890 Not Verified
 * DUBLIN DR INTERSECTS
 900 Bertrand Cathy R [2] ▲
 910 - 920 Not Verified (3 Hses)
 930 Navarro Amparo [2] ▲
 Navarro Angelica
 * TILLSON WAY BEGINS
 * JERRY ST ENDS
 * GLENDA ST ENDS
 1201 Swick George M & Maud [2] ▲
 1202 Barton Eugene W [2] ▲
 1213 ARS JET DRIVES boat equip/supl661-398-0242
 Lima Mary J & Anthony R [2] ▲
 1219 Mills Debra J [2] ▲
 Moore Rory B [2] ▲
 1225 Lee Atha D [2] ▲
 1301 Huff Randy V
 Huff Wilma R [2] ▲
 1307 Mathis Cheryl A
 Mathis James E [2] ▲
 1313 Mahon Alma D
 Mahon Thomas R [2] ▲
 1401 Mott Richard G Sr & Geneva A [2] ▲
661-833-9668

1407 Embry Walter L & Cheryl A [2] ▲
 * CLYDESDALE ST INTERSECTS
 * KERN ISLAND ST BEGINS
 1621 Not Verified
 1631 O Jauch Sherry661-396-1847
 White Tina M [2] ▲
 1751 GREENFIELD SENIOR CTR social serv & welfare org661-834-9041
 * ZIP CODE 93313 CAR-RT R022
 2055 Cruz Angelica M
 Cruz Gabriel I [2] ▲
 2329 Gill Phyllis M [2] ▲
 2438 Pinheiro David A & Debra L [2] ▲
 2504 O Duran Maria
 2923 Terrazas Victor & Lionel [2] ▲
661-836-9189

3123 Aldrich Dwight H [2] ▲
661-834-0317
 3219 Eyraud Jerold C Sr [2] ▲
661-833-9825
 Eyraud Joy D661-833-9825
 * WIBLE RD INTERSECTS
 3300 Cordero Roman A
 Cordero Tina R [2] ▲
 3304 Yeakley John C [2] ▲
 3308 Hulse Samuel D & Ardis J [2] ▲
 3400 O Bowen Donna K [2] ▲
 3404 Gill Kiranjeet K
 Gill Nirmal S [2] ▲
 3408 Kasas Abraham [2] ▲
 Kasas Ana L
 3412 Goodrich Robert A & Karen A [2] ▲
661-831-8750
 3500 Harrington Petar A & Marianne R [2] ▲
661-397-9221

3504 Not Verified
 3508 Connick Greg [2] ▲
 3600 Not Verified
 3604 Burch Thomas W [2] ▲
 Burch Yolanda
 3608 Anderson Julie A [2] ▲
 3702 Hughes Blanche Y
 Hughes Leon D [2] ▲
 3706 Pieri Joseph J [2] ▲
 Pieri Linda C
 3800 O Ruiz Michael S & Cindy A [2] ▲
661-834-7109
 3804 Maltz Martin M & Joseph E [2] ▲
 3808 Lewis Chris J
 Lewis Robert J [2] ▲
 * ROCKHAMPTON DR INTERSECTS
 * AKERS RD INTERSECTS
 * ZIP CODE 93313 CAR-RT R010
 4626 Tucker Jeremy R661-832-3129
 Tucker Robert D [2] ▲
661-832-3129

* STINE RD INTERSECTS
 BUSINESSES 7 HOUSEHOLDS 80

MCKEE RD (LAMONT)-FROM 9301 CARNATION AVE EAST
 * WEEPATCH HWY CONTINUES
 * ZIP CODE 93241 CAR-RT C001
 8206 Diaz Gilbert [2]661-845-6401
 8209 Vargas Daniel [2]661-845-1969
 8210 Monclova Adrian T Jr [2] ▲
 Monclova Tomasa
 8225 LAMONT FIRE STATION
661-845-1122

MCKEE RD Cont'd
 * RUBEN ST BEGINS
 8308 Manriquez David F Sr [2] ▲
 Manriquez Florentina C
661-845-3463
 * CHERYL ST BEGINS
 * LILLY ST BEGINS
 8409 C Cuellar Angela P [2] ▲
 * CARNATION AVE INTERSECTS
 BUSINESSES 1 HOUSEHOLDS 5

E MCKEE RD (BAKERSFIELD)
 * S UNION AVE INTERSECTS
 * ZIP CODE 93307 CAR-RT C003
 253 CAREY TRAILER MFG trailers-truck-mtr661-397-9628
 340 CO-OPP PLUMBING plumbing contractors661-831-3144
 DRAIN-X PLUMBING CO plumbing contractors661-398-0730
 BUSINESSES 3

MCKELVEY AVE (BAKERSFIELD)-FROM 4101 KNOLL DR WEST
 * ZIP CODE 93308 CAR-RT C026
 100 Sinal Jana A [2] ▲661-393-7017
 * N CHESTER AVE CONTINUES
 101 Kimbriel Roberta
 Kimbriel Wilbert H [2] ▲
 107 Rivas Isabelle661-399-4999
 Rivas Jesus A Jr [2] ▲
661-399-4999
 112 TRI-GRIP WATER SKI HANDLES water skiing equip/supl661-392-8312
 113 Meyer Craig J [2] ▲
 118 Clark Edwin G
 Clark Gladys J [2] ▲
 119 Trammell Geneva I [2] ▲
661-393-0730

125 O Breyer Karen E
 Majors Forrest R & Willaean R [2] ▲
661-399-2487
 * KEVIN DR INTERSECTS
 201 Monteliano Jose U & Danielle Y [2] ▲
 207 Davis Ted J & Teresa J [2] ▲
 213 Qualls Linda P
 Qualls Richard L [2] ▲
 219 Benson Hazel J [2] ▲
 225 Howard Flora M [2] ▲661-399-5273
 * SKYE DR INTERSECTS
 301 Alston Robbie J
 Alston William S [2] ▲
 307 Hornsby Wallace K & Jane L [2] ▲
661-399-0582

313 Blackburn Anna C
 Blackburn Donald W [2] ▲
 Blackby Deborah L [2] ▲
 325 Randies Dawn E
 Randies Steven R [2] ▲
 * KNOLL DR INTERSECTS
 400 Not Verified
 401 Price Eunice L [2] ▲
 406 Gaines Wayne A [2] ▲
661-393-5338
 407 Nelson Charles J & Beverly K [2] ▲
661-399-5218
 412 Blevins Larry W [2] ▲
 413 Not Verified
 418 Mussmann Kenneth R & Mary E [2] ▲
661-393-1519

419 Adams Debbie L & Steven K [2] ▲
 424 Bryant Constance L [2] ▲
661-399-6730
 425 Trout Bobby L & Norma L [2] ▲
 431 Kastorff Jeannette B [2] ▲
661-399-9703
 437 Whitaker Pam J
 Whitaker Peggy J [2] ▲
 * MCKELVEY CT BEGINS
 501 Cavazos Rogelio R & Shawna R [2] ▲
661-399-3543
 506 Kenny Robert E & Audrey E [2] ▲
 507 Not Verified
 512 Hanson Burton L & Henrietta F [2] ▲
661-393-6150

513 Page Charles R & Erma L [2] ▲
 518 Wabob Susan E & Michael J [2] ▲
 519 Post Jack L [2] ▲661-393-6034
 524 Not Verified
 525 Bivins Clyde E & Bivins [2] ▲
 600 Lloyd Diana M & Barton B [2] ▲
 601 - 613 Not Verified (3 Hses)
 619 Semar Donna E [2] ▲
 * GLENECANN ST BEGINS
 701 Not Verified
 707 Bowen Oran H & Roberta M [2] ▲
661-399-1579
 BOWEN'S REPAIR SVC beauty supl & equip-rpr661-399-1616
 Brs Typenhouse [2]661-399-1616
 * MCCRAY ST INTERSECTS
 BUSINESSES 2 HOUSEHOLDS 47

MCKELVEY CT (BAKERSFIELD)-FROM 499 MCKELVEY AVE NORTHWEST
 * ZIP CODE 93308 CAR-RT C026
 4101 Park James R Jr [2] ▲
 4112 Hoek Rudi N & Amy [2] ▲
 4113 Not Verified
 4118 Graham Joyce A [2] ▲
661-399-8185

MCKELVEY CT Cont'd
 4200 Rye Brian K & Polly A [2] ▲
661-393-0783
 4201 Watkins Richard W & Lois D [2] ▲
 4206 Hemdon Russell [2] ▲
661-399-4153
 4207 Goff Paul W Jr [2] ▲
 Goff Phyllis [2]661-399-1947
 4212 Not Verified
 4213 Martini Michael G & Nina A [2] ▲
 4218 Fernandez Chad U & Crisley L [2] ▲
 4224 Harrison Craig M661-399-4271
 Harrison Patrick D [2] ▲
661-399-4271
 HOUSEHOLDS 13

MCKENNA ST (BAKERSFIELD)-FROM 11299 PHILIP PL
 * ZIP CODE 93306 CAR-RT C033
 3813 O Castro Daniel P [2] ▲
 Castro Nicole
 3817 Jones Carolyn
 Jones Marvin E [2] ▲
 3821 Foster Gail L
 Foster Steve C [2] ▲
661-399-4271
 HOUSEHOLDS 3

MCKINLEY AVE (BAKERSFIELD)-FROM 801 BUCHANAN CT WEST
 * SANFORD DR CONTINUES
 * ZIP CODE 93308 CAR-RT C007
 1017 Cash James R
 Cash Sandra L
 1101 Segroves Dawn M
 Segroves Ronnie J [2] ▲
 1103 Homsby Ted II [2] ▲
 1105 O Woodard Amy L661-392-0294
 1107 Not Verified
 1109 Crouch James A Jr [2] ▲
 1111 Tidwell Terrence D [2] ▲
 * BUCHANAN CT BEGINS
 1113 Hansford Gary L & Judy C [2] ▲
 1115 Kennedy Elsie P [2] ▲
 1117 Wheat Ray L & Iris M [2] ▲
 1201 Not Verified
 1203 Nelson Angela M [2]661-399-4133
 Perkins Cathy A661-387-9366
 Perkins John A [2]661-387-9366
 1205 Clark Kevin D [2]661-399-3473
 * MONROE CT BEGINS
 1207 Slias Michael J & Janice J [2] ▲
661-399-8769
 1209 O Long Cheryl & Glenn
 1211 Jensen Jimmy E [2] ▲
 Jensen Rhonda
 * POLK ST INTERSECTS
 1213 HUB'S HOT SHOT SVC trucking661-392-0906
 Hubble Dondi A
 Hubble Raymond L [2] ▲
 1215 Not Verified
 1216 Lewis Richard T [2] ▲
 1217 Lenander Neal E & Pamela O [2] ▲
661-399-4060

1218 O Worrell Cathy
 1219 Romo Brett [2] ▲
 1220 Crawford Ivan B Jr [2] ▲
661-393-4508
 Crawford Shelley R661-393-4508
 BUSINESSES 1 HOUSEHOLDS 24

MCKINNON AVE (BAKERSFIELD)-FROM 339 ROLL WAY EAST
 * ZIP CODE 93306 CAR-RT C024
 8500 Not Verified
 8501 Williams Stephanie S 661-366-2906
 Williams Timothy D [2] ▲
661-366-2906
 8508 Michaud Virginia [2] ▲
 8509 Padilla David [2] ▲
 Padilla Juan B
 8516 Pounds Wanda J & Keith D [2] ▲
 8517 Montl Marcel J [2] ▲661-587-9822
 Montl Michael A661-587-9822
 8524 Murrah Michael [2] ▲
 8525 Villarreal Atanacio [2] ▲
 8532 Jones Paul [2] ▲
 8533 Eamshaw Robert R Sr & Donna K [2] ▲
661-366-9066
 8600 Not Verified
 8601 Kelster James A & Sandra K [2] ▲
661-366-4508
 8608 Not Verified
 8609 Callen Christopher M & Heather F [2] ▲
 GINGERWISE CO vending mach661-201-8323
 8616 Balsa Robert [2]661-366-1509
 8617 Gillen Francisco [2] ▲
 8624 Miranda Thomas D [2] ▲
 8625 Helton Cecil C [2] ▲
 Rinehart April L
 Rinehart Tina M
 8632 Ramirez Kimberly A
 Ramirez Victor M [2] ▲
 8633 Yates Rick S [2]661-366-3779
 Yates Robert F661-366-3779
 8700 David William M & Gloria J [2] ▲
 8701 Graham Bea A [2]661-366-2732
 8708 Hokit Jennifer E [2] ▲
 8709 - 8716 Not Verified (2 Hses)
 8717 Acosta Aurora D [2] ▲
 8724 Altman Michael J [2] ▲

8725 Not Verified
 8732 Verrell Dian P [2] ▲
 8733 Baca Anthony J & Eva L [2] ▲
 8800 Bigler Michael J [2] ▲
 8801 Not Verified
 8808 Marques Mark K [2] ▲
 8809 Rivas Adam G661-364-0743
 Rivas David661-364-0743
 8816 O Vazquez Maria E [2] ▲
 8817 Rivera Candelario II [2] ▲
 8824 Nunez Michael A [2] ▲
661-364-0828
 Nunez Selsa A661-364-0828
 8825 O Brown Shannon D
 * MONICA ST INTERSECTS
 BUSINESSES 1 HOUSEHOLDS 39

MCNAIN LN (BAKERSFIELD)
 * ZIP CODE 93313 CAR-RT C001
 7650 WESTBURNE SUPPLY plumbing fixtures & suppl-whol
 7800 LORENES RANCHED HOUSE restaurants661-827-9702
 SORELLA RISTORANTE ITALIANO restaurants661-396-8603
 BUSINESSES 3

MCNEW GT (BAKERSFIELD)-FROM 693 JASTRO AVE EAST
 * ZIP CODE 93307 CAR-RT C005
 801 O Grundy Michael661-831-3285
 804 Gonzalez Jose A [2]661-872-9146
 805 B Moody Rochelle D [2] ▲
661-831-4152
 810 O Collins J661-837-4951
 811 A Propps Giselle [2] ▲
 B Herrera Armando [2] ▲
 813 Martinez Alejandra [2]661-397-0894
 900 Not Verified
 901 Herrera Beatriz J [2] ▲
 A O Garcia Sharon M 661-397-5851
 B Jackson John D [2]661-588-7527
 904 Garcia Leopoldo [2]661-827-9968
 Herrera Gregorio J Sr [2] ▲
661-834-4598
 Herrera Selinda S661-834-4598
 905 Kendrick Amanda M [2] ▲
661-397-4986
 908 - 923 Not Verified (4 Hses)
 930 Hurd Edward D [2] ▲661-836-3660
 Hurd Laurett661-836-3660
 931 Torres Jose [2]661-837-1643
 * JASTRO AVE INTERSECTS
 1005 Not Verified
 1008 O Corona Horcicia661-831-2752
 A Carbalaj Tiffany [2]661-836-1632
 B - D Not Verified (3 Apts)
 1009 Perez Amador [2] ▲
 Perez Anabetha B
 1015 - 1016 Not Verified (2 Hses)
 1100 B Delacruz Marina T [2] ▲
661-836-8607

1101 O Ray L [2] ▲
 1104 O Valdez M M661-832-8568
 1105 O Saavedra Angela C 661-836-1979
 A O Lewis Lakesha
 1109 O Molina Acucena661-831-6825
 1112 - 1114 Not Verified (2 Hses)
 1117 Cruz Ernest Sr [2] ▲
 Cruz Suzy A
 1201 Reyes Leon L661-834-6610
 Reyes Rosie R [2] ▲661-834-6610
 1205 Not Verified
 1212 Caldwell Andrea M
 Caldwell Dorris [2] ▲
 1213 Not Verified
 1215 Mendez Larry [2] ▲
 1216 O Cuevas Abel R661-833-1878
 1217 Yubeta Mike C [2] ▲
 Yubeta Richard
 1220 Barajas Maricela Z
 Barajas Miguel G Jr [2] ▲
 1221 Not Verified
 1224 O Diaz Martha
 1300 Williams Howard R [2] ▲
 1303 Villanueva Jose D [2] ▲
 Villanueva Romana D
 1305 Not Verified
 1306 Hernandez Jesus A [2] ▲
 Hernandez Patricia R
 1309 O Ward Giselle661-831-3415
 * COTTONWOOD RD INTERSECTS
 HOUSEHOLDS 53

MCNUTT ST (BAKERSFIELD)-FROM 6101 AZALEA AVE NORTH
 * ZIP CODE 93306 CAR-RT C022
 2500 O Contreras Castareo [2] ▲
 Contreras Leticia
 2501 O Sanders Heath R [2] ▲
 Sanders Mishel
 2504 Lunsford John R & Diane C [2] ▲
661-871-3194
 2505 Barlanga Joseph A [2] ▲
 Barlanga Pauline
 2508 Candelaria John F III [2] ▲
661-871-5820
 2509 Not Verified
 2600 Corrigan Cheryl L & Edward J [2] ▲
661-872-1824

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AREC - Vacant Land

9407 South H Street
Bakersfield, CA 93307

Inquiry Number: 6757422.7
November 22, 2021

EDR Environmental Lien and AUL Search

EDR Environmental Lien and AUL Search

The EDR Environmental Lien and AUL Search Report provides results from a search of available current land title records for environmental cleanup liens and other activity and use limitations, such as engineering controls and institutional controls.

A network of professional, trained researchers, following established procedures, uses client supplied address information to:

- search for parcel information and/or legal description;
- search for ownership information;
- research official land title documents recorded at jurisdictional agencies such as recorders' offices, registries of deeds, county clerks' offices, etc.;
- access a copy of the deed;
- search for environmental encumbering instrument(s) associated with the deed;
- provide a copy of any environmental encumbrance(s) based upon a review of key words in the instrument(s) (title, parties involved, and description); and
- provide a copy of the deed or cite documents reviewed.

Thank you for your business.

Please contact EDR at 1-800-352-0050
with any questions or comments.

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This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OR DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

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EDR Environmental Lien and AUL Search

TARGET PROPERTY INFORMATION

ADDRESS

9407 South H Street
AREC - Vacant Land
Bakersfield, CA 93307

ENVIRONMENTAL LIEN

Environmental Lien: Found Not Found

OTHER ACTIVITY AND USE LIMITATIONS (AULs)

AULs: Found Not Found

RESEARCH SOURCE

Source 1:

Kerna Recorder
Kern, CA

PROPERTY INFORMATION

Deed 1:

Type of Deed: deed
Title is vested in: Wendwell Nelson Trustee Elvera Nelson Trustee
Title received from: Wendwell Nelson Trustee Elvera Nelson Trustee
Deed Dated: 1/10/2011
Deed Recorded: 1/10/2011
Book: NA
Page: na
Volume: na
Instrument: na
Docket: NA
Land Record Comments:
Miscellaneous Comments:

Legal Description: See Exhibit

Legal Current Owner: Wendwell Nelson Trustee Elvera Nelson Trustee

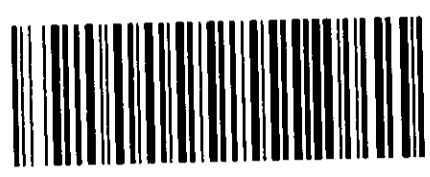
Parcel # / Property Identifier: 514-060-05

Comments: See Exhibit

Deed Exhibit 1

Recorded at the request of
Public

DOC#: 0211004079



Stat Types: 1	Pages: 4
Fees	18.00
Taxes	0.00
Others	0.00
PAID	\$18.00

RECORDING REQUESTED BY:

When Recorded Mail Document
and Tax Statement To:
Wendwell Nelson, Trustee et al
9407 South H Street
Bakersfield CA 93307

APN: 514-060-05

SPACE ABOVE THIS LINE FOR RECORDER'S USE

CORRECTION GRANT DEED

The undersigned grantor(s) declare(s)

Documentary transfer tax is \$-0- (Correction of deed recorded 3/10/2004 as Inst. #0204053359

- [] computed on full value of property conveyed, or
- [] computed on full value less value of liens or encumbrances remaining at time of sale,
- [XXXXX] Unincorporated Area [] City of

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged, (see grantor exhibit attached hereto and made a part hereof by reference)

hereby GRANT(S) to Wendwell Nelson, Successor Trustee of the Nelson Family Trust DTD 1/24/96 as to an undivided 1/2 interest; and Elvera Nelson, successor trustee of the Nelson Living Trust DTD 4/19/97 as to an undivided 1/2 interest

the following described real property in the, County of Kern, State of California: Legal Description attached hereto and made a part hereof by reference.

This deed is given to correct the date of one of the grantee trusts of that certain grant deed recorded 3/10/2004 as Instrument No. 0204053359.

DATED: January 7, 2011 ^{10, 2011. 1-10-11}

The Nelson Family Trust DTD 1/24/96

STATE OF CALIFORNIA)
COUNTY OF Kern)

By: Wendwell Nelson
Wendwell Nelson, Successor Trustee

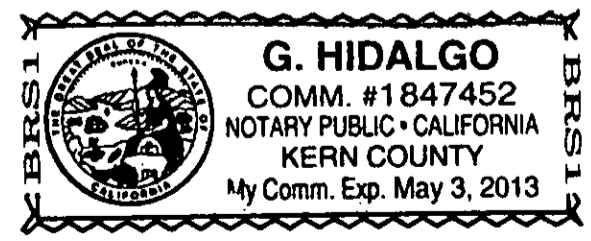
On 01-10-2011 before me,
G. Hidalgo, a Notary Public

The Nelson Living Trust DTD 4/19/97

personally appeared Wendwell Nelson
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

By: Elvera Nelson
Elvera Nelson, Successor Trustee

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.



Witness my hand and official seal.

Signature [Handwritten Signature] (Seal)

LEGAL DESCRIPTION EXHIBIT

UNINCORPORATED AREA:

THAT PORTION OF LOT 18 IN SECTION 36, TOWNSHIP 30 SOUTH, RANGE 27 EAST, MOUNT DIABLO BASE AND MERIDIAN, IN THE COUNTY OF KERN, STATE OF CALIFORNIA, ACCORDING TO KERN COUNTY SALES MAP NO. 1 OF LANDS OF J. B. HAGGIN MADE BY AND ACCORDING TO THE SURVEY OF W. R. MACMURDO, COUNTY SURVEYOR OF KERN COUNTY, CALIFORNIA, DATED MARCH 16, 1889, AND FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY ON MAY 3, 1889, LYING EAST OF THE EAST LINE OF THE STATE HIGHWAY PARTICULARLY DESCRIBED IN DEED RECORDED MARCH 3, 1960, IN BOOK 3244, PAGE 777 OF OFFICIAL RECORDS.

EXCEPTING THEREFROM AN UNDIVIDED 1/2 INTEREST IN ALL THE OIL, GAS AND OTHER MINERALS IN AND UNDER SAID LAND, OR THAT MAY BE PRODUCED THEREFROM UNTIL JANUARY 10, 1965, AS RESERVED UNTIL JANUARY 10, 1955, IN DEED FROM VENA M. RHYNER AND MARY M. FLETCHER, RECORDED MAY 2, 1945, IN BOOK 1225, PAGE 352 OF OFFICIAL RECORDS, AND AS EXTENDED TO JANUARY 10, 1965, BY DEED FROM HOUSTON ARVIS STARR AND WIFE, RECORDED JANUARY 17, 1950, IN BOOK 1712, PAGE 222 OF OFFICIAL RECORDS, AND BY DEED FROM HOUSTON ARVIS STARR AND WIFE, RECORDED JANUARY 4, 1952, IN BOOK 1882, PAGE 497 OF OFFICIAL RECORDS.

ALSO EXCEPTING THEREFROM AN UNDIVIDED 1/2 INTEREST IN ALL THE OIL, GAS AND OTHER MINERALS IN AND UNDER SAID LAND, OR WHICH MAY BE PRODUCED THEREFROM, AS RESERVED IN DEED FROM A. P. ARMAS AND MARY ARMAS, HUSBAND AND WIFE, SAID MARY ARMAS ALSO KNOWN AS MARY ANN ARMAS, RECORDED MARCH 31, 1960, IN BOOK 3254, PGE 475 OF OFFICIAL RECORDS.

APN: 514-060-05

GRANTOR EXHIBIT

WENDWELL NELSON, SUCCESSOR TRUSTEE OF THE NELSON FAMILY TRUST DTD 1/24/96, AS TO AN UNDIVIDED 1/2 INTEREST AND ELVERA NELSON, SUCCESSOR TRUSTEE OF THE NELSON LIVING TRUST DTD 4/19/97, AS TO AN UNDIVIDED 1/2 INTEREST (WHO ACQUIRED TITLE AS THE NELSON FAMILY TRUST, DATED JANUARY 24, 1996, WENDWELL NELSON AND RETHA JANETTE NELSON, TRUSTORS AND TRUSTEES, AS TO AN UNDIVIDED 1/3 INTEREST AND DENDWELL NELSON AND ELVERA NELSON TRUSTEES OF THE NELSON LIVING TRUST DATED 4/19/97, AS TO AN UNDIVIDED 2/3 INTEREST)

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California

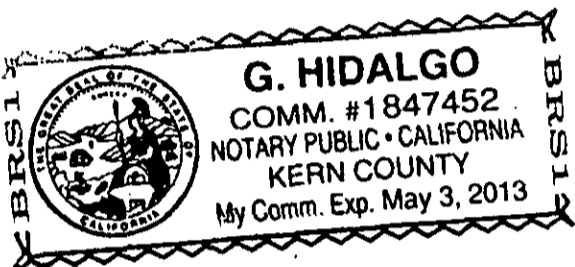
County of Kern

On 01-10-2011 before me.

G. Hidalgo, Notary Public
Here insert Name and Title of the Officer

personally appeared

Elvera Nelson
Name(s) of Signer(s)



who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature

Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document

Title or Type of Document: Correction Grant Deed

Document Date: 01-10-2011 Number of Pages: 1

Signer(s) Other Than Named Above: Wendwell Nelson

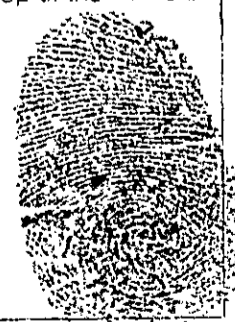
Capacity(ies) Claimed by Signer(s)

Signer's Name: Elvera Nelson

- Individual
- Corporate Officer — Title(s): _____
- Partner — Limited General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: _____

Signer Is Representing: _____

RIGHT THUMBPRINT OF SIGNER
Top of thumb here

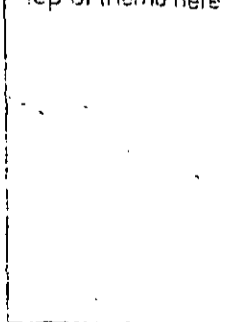


Signer's Name: _____

- Individual
- Corporate Officer — Title(s): _____
- Partner — Limited General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: _____

Signer Is Representing: _____

RIGHT THUMBPRINT OF SIGNER
Top of thumb here



AREC - Vacant Land

9407 South H Street
Bakersfield, CA 93307

Inquiry Number: 6757422.8
November 19, 2021

EDR Building Permit Report

Target Property and Adjoining Properties

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SECTION

About This Report

Executive Summary

Findings

Glossary

Thank you for your business.

Please contact EDR at 1-800-352-0050
with any questions or comments.

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This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OR DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

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EDR BUILDING PERMIT REPORT

About This Report

The EDR Building Permit Report provides a practical and efficient method to search building department records for indications of environmental conditions. Generated via a search of municipal building permit records gathered from more than 1,600 cities nationwide, this report will assist you in meeting the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

Building permit data can be used to identify current and/or former operations and structures/features of environmental concern. The data can provide information on a target property and adjoining properties such as the presence of underground storage tanks, pump islands, sumps, drywells, etc., as well as information regarding water, sewer, natural gas, electrical connection dates, and current/former septic tanks.

ASTM and EPA Requirements

ASTM E 1527-13 lists building department records as a "standard historical source," as detailed in § 8.3.4.7: "Building Department Records - The term building department records means those records of the local government in which the property is located indicating permission of the local government to construct, alter, or demolish improvements on the property." ASTM also states that "Uses in the area surrounding the property shall be identified in the report, but this task is required only to the extent that this information is revealed in the course of researching the property itself."

EPA's Standards and Practices for All Appropriate Inquiries (AAI) states: "§312.24: Reviews of historical sources of information. (a) Historical documents and records must be reviewed for the purposes of achieving the objectives and performance factors of §312.20(e) and (f). Historical documents and records may include, but are not limited to, aerial photographs, fire insurance maps, building department records, chain of title documents, and land use records."

Methodology

EDR has developed the EDR Building Permit Report through our partnership with BuildFax, the nation's largest repository of building department records. BuildFax collects, updates, and manages building department records from local municipal governments. The database now includes 30 million permits, on more than 10 million properties across 1,600 cities in the United States.

The EDR Building Permit Report comprises local municipal building permit records, gathered directly from local jurisdictions, including both target property and adjoining properties. Years of coverage vary by municipality. Data reported includes (where available): date of permit, permit type, permit number, status, valuation, contractor company, contractor name, and description.

Incoming permit data is checked at seven stages in a regimented quality control process, from initial data source interview, to data preparation, through final auditing. To ensure the building department is accurate, each of the seven quality control stages contains, on average, 15 additional quality checks, resulting in a process of approximately 105 quality control "touch points."

For more information about the EDR Building Permit Report, please contact your EDR Account Executive at (800) 352-0050.



EXECUTIVE SUMMARY: SEARCH DOCUMENTATION

A search of building department records was conducted by Environmental Data Resources, Inc (EDR) on behalf of ATC Group Services LLC on Nov 19, 2021.

TARGET PROPERTY

9407 South H Street
Bakersfield, CA 93307

SEARCH METHODS

EDR searches available lists for both the Target Property and Surrounding Properties.

RESEARCH SUMMARY

Building permits identified: **YES**

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

Kern County

<u>Year</u>	<u>Source</u>	<u>TP</u>	<u>Adjoining</u>
2021	County of Kern, Building Inspection Division		X
2020	County of Kern, Building Inspection Division		X
2019	County of Kern, Building Inspection Division		X
2018	County of Kern, Building Inspection Division		
2017	County of Kern, Building Inspection Division		X
2016	County of Kern, Building Inspection Division		
2015	County of Kern, Building Inspection Division		X
2014	County of Kern, Building Inspection Division		X
2013	County of Kern, Building Inspection Division		X
2012	County of Kern, Building Inspection Division		X
2011	County of Kern, Building Inspection Division		X
2010	County of Kern, Building Inspection Division		X
2009	County of Kern, Building Inspection Division		X
2008	County of Kern, Building Inspection Division		
2007	County of Kern, Building Inspection Division		
2006	County of Kern, Building Inspection Division		X
2005	County of Kern, Building Inspection Division		X
2004	County of Kern, Building Inspection Division		X
2003	County of Kern, Building Inspection Division		X
2002	County of Kern, Building Inspection Division		
2001	County of Kern, Building Inspection Division		
2000	County of Kern, Building Inspection Division		
1999	County of Kern, Building Inspection Division		
1998	County of Kern, Building Inspection Division		
1997	County of Kern, Building Inspection Division		
1996	County of Kern, Building Inspection Division		
1995	County of Kern, Building Inspection Division		
1994	County of Kern, Building Inspection Division		

EXECUTIVE SUMMARY: SEARCH DOCUMENTATION

<u>Year</u>	<u>Source</u>	<u>TP</u>	<u>Adjoining</u>
1993	County of Kern, Building Inspection Division		
1992	County of Kern, Building Inspection Division		
1991	County of Kern, Building Inspection Division		
1990	County of Kern, Building Inspection Division		
1989	County of Kern, Building Inspection Division		
1988	County of Kern, Building Inspection Division		
1987	County of Kern, Building Inspection Division		

Name: JurisdictionName

Years: Years

Source: Source

Phone: Phone

BUILDING DEPARTMENT RECORDS SEARCHED

Name: Kern County
Years: 1987-2021
Source: County of Kern, Building Inspection Division, BAKERSFIELD, CA
Phone: (661) 862-8650

Name: Bakersfield
Years: 1987-2021
Source: City of Bakersfield, Development Services Building Division, BAKERSFIELD, CA
Phone: (661) 326-3926

Name: Redding
Years: 1926-2021
Source: City of Redding, Development Services, Building Division, WEST SACRAMENTO, CA
Phone: 530-225-4014

TARGET PROPERTY FINDINGS

TARGET PROPERTY DETAIL

**9407 South H Street
Bakersfield, CA 93307**

No Permits Found

ADJOINING PROPERTY FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

FLINDERS ST

9119 FLINDERS ST

Date: **9/27/2005**
Permit Type: **BLDG**
Description: **SWIMMING POOL WWTRFALL AT EX RES**

Permit Description: **BUILDING**
Work Class: **POOL**
Proposed Use:
Permit Number: **K200509136**
Status: **FINALED**
Valuation: **\$0.00**
Contractor Company:
Contractor Name: **JAYCO CONST**

Date: **7/20/2004**
Permit Type: **BUILDING**
Description: **CONST 277 SQ FT ADDN TO EX SFR TO INCL ADDN TO KITCHEN, MASTER BATH AND WALK IN CLOSET, AND REROOF**

Permit Description:
Work Class: **ALTRES**
Proposed Use:
Permit Number: **K200401990**
Status: **ISSUED**
Valuation: **\$21,075.71**
Contractor Company:
Contractor Name:

ADJOINING PROPERTY FINDINGS

Date: **3/3/2003**
Permit Type: **PLUMBING**
Description: **SEEPAGE ADDITION TO EX SYSTEM @ EX RES.**

Permit Description:
Work Class: MISCRES
Proposed Use:
Permit Number: K200301234
Status: CANCELED
Valuation: \$0.00
Contractor Company:
Contractor Name: BAKERSFIELD KERN PUMP

9207 FLINDERS ST

Date: **12/1/2014**
Permit Type: **Residential**
Description: **INSTALL GAS INSERT TO EX FIREPLACE AT EX S/F RES**

Permit Description: **Residential Mechanical**
Work Class:
Proposed Use: SGL FAM RES ON R1 ZONED LAND
Permit Number: K201408342
Status: Finaled
Valuation: \$0.00
Contractor Company:
Contractor Name: ECONO-AIR INC

Date: **6/11/2012**
Permit Type: **MECH**
Description: **REPL ROOF MOUNTED HVAC ACC TO EX SFR**

Permit Description: **MECHANICAL**
Work Class: MISCRES
Proposed Use:
Permit Number: K201203057
Status: FINALED
Valuation: \$0.00
Contractor Company:
Contractor Name:

ADJOINING PROPERTY FINDINGS

Date: **5/30/2012**
Permit Type: **ELEC**
Description: **ROOF MOUNT SOLAR SYSTEM AND PANEL UPGRADE AT EXIS SFR 2.4 KW**

Permit Description: **ELECTRICAL**
Work Class: **MISCRES**
Proposed Use:
Permit Number: **K201202842**
Status: **FINALED**
Valuation: **\$0.00**
Contractor Company:
Contractor Name:

Date: **12/30/2009**
Permit Type: **BLDG**
Description: **CONST 373 SQ FT ADDN TO EX SFR TO INCL HALL & BATH**

Permit Description:
Work Class: **ALTRES**
Proposed Use:
Permit Number: **K200900137**
Status: **FINALED**
Valuation: **\$20,973.79**
Contractor Company:
Contractor Name:

9213 FLINDERS ST

Date: **2/1/2012**
Permit Type: **ELEC**
Description: **INSTALL 2.03KW ROOF MOUNTED SOLAR PV ARRAY ACC TO EX SFR**

Permit Description: **ELECTRICAL**
Work Class: **MISCRES**
Proposed Use:
Permit Number: **K201200552**
Status: **FINALED**
Valuation: **\$0.00**
Contractor Company:
Contractor Name:

ADJOINING PROPERTY FINDINGS

9219 FLINDERS ST

Date: **6/21/2010**
Permit Type: **MECH**
Description: **REPLACE A/C UNIT @ EX S/F RES**

Permit Description:
Work Class: MISCRES
Proposed Use:
Permit Number: K201002793
Status: FINALED
Valuation: \$0.00
Contractor Company:
Contractor Name: JON DOOLEY HEATING AND COOLING

Date: **12/29/2004**
Permit Type: **PLUMBING**
Description: **REPLACEMENT WATER HEATER @ EX RES.**

Permit Description:
Work Class: MISCRES
Proposed Use:
Permit Number: K200410693
Status: ISSUED
Valuation: \$0.00
Contractor Company:
Contractor Name: TRACY DON WILLIAMS

ADJOINING PROPERTY FINDINGS

MORNINGTON AVE

1518 MORNINGTON AVE

Date: **5/8/2020**
Permit Type: **Residential**
Description: **CONSTRUCT DETACHED ADDITIONAL LIVING SPACE WITH INTERIOR STORAGE CLOSET & BATHROOM- ATTACHED COVERED PATIO, OUTDOOR KITCHEN/ BAR-B-QUE AREA WITH ASSOCIATED PLUMBING & ELECTRICAL AND OUTDOOR PANTRY.**

Permit Description: **Residential Accessory**
Work Class:
Proposed Use: SGL FAM RES ON R1 ZONED LAND
Permit Number: K202003068
Status: In Review
Valuation: \$41,755.01
Contractor Company:
Contractor Name:

Date: **5/31/2019**
Permit Type: **Residential**
Description: **CONSTRUCT DETACHED 621 SQ FT GAME ROOM WITH BATHROOM AND 263 SQ FT OUTDOOR COVERED KITCHEN / PATIO ACCY TO EX SFR**

Permit Description: **Residential Accessory**
Work Class:
Proposed Use: SGL FAM RES ON R1 ZONED LAND
Permit Number: K201903822
Status: Canceled
Valuation: \$38,206.33
Contractor Company:
Contractor Name:

ADJOINING PROPERTY FINDINGS

Date: **1/17/2017**
Permit Type: **Residential**
Description: **CONSTRUCT 20X48.75'SHADE STRUCTURE ACCESSORY TO EXISTING SINGLE FAMILY RESIDENCE**

Permit Description: **Residential Alteration**
Work Class:
Proposed Use: SGL FAM RES ON R1 ZONED LAND
Permit Number: K201607754
Status: Canceled
Valuation: \$12,187.50
Contractor Company:
Contractor Name:

STUB OAK AVE

1425 STUB OAK AVE

Date: **1/15/2021**
Permit Type: **Residential**
Description: **INSTALL ROOF SOLAR ON EX SFR...SINGLE INSP**

Permit Description: **Residential Energy Solar**
Work Class:
Proposed Use: SFR NOT ON RS 1 2 3 4
Permit Number: K202100364
Status: Finaled
Valuation: \$0.00
Contractor Company:
Contractor Name: VIVINT SOLAR

ADJOINING PROPERTY FINDINGS

Date: **3/17/2015**
Permit Type: **Residential**
Description: **INSTAL NEW GAS INSERT TO EX FIREPLC AT EX S/F RES**

Permit Description: **Residential Mechanical**
Work Class:
Proposed Use: SFR <20AC NOT ON RS 1 2 3 4
Permit Number: K201501837
Status: **Finald**
Valuation: \$0.00
Contractor Company:
Contractor Name: **ECONO-AIR INC**

Date: **8/27/2014**
Permit Type: **Residential**
Description: **REROOF SFR WITH COMP AND RADIANT BARRIER**

Permit Description: **Residential Roof**
Work Class:
Proposed Use: SGL FAM RES ON R1 ZONED LAND
Permit Number: K201405989
Status: **Finald**
Valuation: \$10,000.00
Contractor Company:
Contractor Name: **Superior Roofing**

Date: **8/18/2014**
Permit Type: **Residential**
Description: **INSTALL 3.300KW ROOF MOUNT SOLAR PHOTOVOLTAIC ARRAY ACCESSORY TO EXISTING SINGLE FAMILY RESIDENCE**

Permit Description: **Residential Energy Solar**
Work Class:
Proposed Use: SGL FAM RES ON R1 ZONED LAND
Permit Number: K201405761
Status: **Finald**
Valuation: \$0.00
Contractor Company:
Contractor Name: **SMART SOLAR MARKETING**

ADJOINING PROPERTY FINDINGS

1500 STUB OAK AVE

Date: **9/2/2021**
Permit Type: **Residential**
Description: **INSTALL ROOF MOUNT SOLAR W/ (1X) BATTERY & ELECTRICAL SERVICE PANEL
DERATE AT EX SFR, MULTIPLE INSPECTION**

Permit Description: **Residential Energy Solar**
Work Class:
Proposed Use: **SGL FAM RES ON R1 ZONED LAND**
Permit Number: **K202107805**
Status: **Issued**
Valuation: **\$0.00**
Contractor Company:
Contractor Name: **INFINITY ENERGY**

Date: **1/5/2021**
Permit Type: **Residential**
Description: **REROOF HOUSE AND ATTACHED GARAGE WITH A COOL ROOF**

Permit Description: **Residential Roof**
Work Class:
Proposed Use:
Permit Number: **K202100077**
Status: **Finald**
Valuation: **\$22,765.00**
Contractor Company:
Contractor Name:

ADJOINING PROPERTY FINDINGS

Date: **6/27/2006**
Permit Type: **BLDG**
Description: **ADD 6X3 HALF RND WINDOW TO EX SFR**

Permit Description: **BUILDING**
Work Class: **ALTRES**
Proposed Use:
Permit Number: **K200606361**
Status: **FINALED**
Valuation: **\$2,300.00**
Contractor Company:
Contractor Name: **MARBERRY CONSTRUCTION**

1501 STUB OAK AVE

Date: **1/16/2013**
Permit Type: **MECH**
Description: **HVAC REPLACEMENT @ EXISTING SFR**

Permit Description: **MECHANICAL**
Work Class: **MISCRES**
Proposed Use:
Permit Number: **K201300277**
Status: **FINALED**
Valuation: **\$0.00**
Contractor Company:
Contractor Name:

Date: **1/16/2013**
Permit Type: **BLDG**
Description: **REROOF EX SFR W/LITE TILE & INSUL**

Permit Description: **BUILDING**
Work Class: **ROOFRES**
Proposed Use:
Permit Number: **K201300294**
Status: **FINALED**
Valuation: **\$20,000.00**
Contractor Company:
Contractor Name:

ADJOINING PROPERTY FINDINGS

1506 STUB OAK AVE

Date: **11/14/2014**
Permit Type: **Residential**
Description: **INSTALL 15.7 KW PV ROOF MT SOLAR ACCY TO EX SFR**

Permit Description: **Residential Energy Solar**
Work Class:
Proposed Use: SGL FAM RES ON R1 ZONED LAND
Permit Number: K201408062
Status: **Finald**
Valuation: \$62,800.00
Contractor Company:
Contractor Name: SUN SOLAR ENERGY SOLUTIONS

1507 STUB OAK AVE

Date: **10/24/2014**
Permit Type: **Residential**
Description: **construct pool, spa, and 7 foot waterfall accessory to existing single family residence**

Permit Description: **Residential Pool**
Work Class:
Proposed Use: SFR <20AC NOT ON RS 1 2 3 4
Permit Number: K201407331
Status: **Finald**
Valuation: \$0.00
Contractor Company:
Contractor Name: DYNASTY POOLS AND SPAS

ADJOINING PROPERTY FINDINGS

Date: **2/3/2011**
Permit Type: **BLDG**
Description: **REROOF SFR WITH TILE AND ADDED SUPPORT ON THE ROOF STRUCTURE**

Permit Description: **BUILDING**
Work Class: **ROOFRES**
Proposed Use:
Permit Number: **K201100489**
Status: **FINALED**
Valuation: **\$17,000.00**
Contractor Company:
Contractor Name: **MARK TREVINO ROOFING**

Date: **1/31/2011**
Permit Type: **MECH**
Description: **REPLC SPLIT SYS AT EX S/F RES**

Permit Description: **MECHANICAL**
Work Class: **MISCRES**
Proposed Use:
Permit Number: **K201100424**
Status: **FINALED**
Valuation: **\$0.00**
Contractor Company:
Contractor Name: **GUNDLACHS PLUMB/SHEETM**

GLOSSARY

General Building Department concepts

- **ICC:** The International Code Council. The governing body for the building/development codes used by all jurisdictions who've adopted the ICC guidelines. MOST of the US has done this. Canada, Mexico, and other countries use ICC codes books and guides as well. There are a few states who have added guidelines to the ICC codes to better fit their needs. For example, California has added seismic retrofit requirements for most commercial structures.
- **Building Department (Permitting Authority, Building Codes, Inspections Department, Building and Inspections):** This is the department in a jurisdiction where an owner or contractor goes to obtain permits and inspections for building, tearing down, remodeling, adding to, re-roofing, moving or otherwise making changes to any structure, Residential or Commercial.
- **Jurisdiction:** This is the geographic area representing the properties over which a Permitting Authority has responsibility.
- **GC:** General Contractor. Usually the primary contractor hired for any Residential or Commercial construction work.
- **Sub:** Subordinate contracting companies or subcontractors. Usually a "trades" contractor working for the GC. These contractors generally have an area of expertise in which they are licensed like Plumbing, Electrical, Heating and Air systems, Gas Systems, Pools etc. (called "trades").
- **Journeyman:** Sub contractors who have their own personal licenses in one or more trades and work for different contracting companies, wherever they are needed or there is work.
- **HVAC (Mechanical, Heating & Air companies):** HVAC = Heating, Ventilation, and Air Conditioning.
- **ELEC (Electrical, TempPole, TPole, TPower, Temporary Power, Panel, AMP Change, Power Release):** Electrical permits can be pulled for many reasons. The most common reason is to increase the AMPs of power in an electrical power panel. This requires a permit in almost every jurisdiction. Other commons reason for Electrical permits is to insert a temporary power pole at a new construction site. Construction requires electricity, and in a new development, power has yet to be run to the lot. The temporary power pole is usually the very first permit pulled for new development. The power is released to the home owner when construction is complete and this sometimes takes the form of a Power Release permit or inspection.
- **"Pull" a permit:** To obtain and pay for a building permit.
- **CBO:** Chief Building Official
- **Planning Department:** The department in the development process where the building /structural plans are reviewed for their completeness and compliance with building codes
- **Zoning Department:** The department in the development process where the site plans are reviewed for their compliance with the regulations associated with the zoning district in which they are situated.
- **Zoning District:** A pre-determined geographic boundary within a jurisdiction where certain types of structures are permitted / prohibited. Examples are Residential structure, Commercial/Retail structures, Industrial/Manufacturing structures etc. Each zoning district has regulations associated with it like the sizes of the lots, the density of the structures on the lots, the number of parking spaces required for certain types of structures on the lots etc.
- **PIN (TMS, GIS ID, Parcel#):** Property Identification Number and Tax Map System number.
- **State Card (Business license):** A license card issued to a contractor to conduct business.
- **Building Inspector (Inspector):** The inspector is a building department employee that inspects building construction for compliance to codes.
- **C.O.:** Certificate of Occupancy. This is the end of the construction process and designates that the owners now have permission to occupy a structure after its building is complete. Sometimes also referred to as a Certificate of Compliance.

GLOSSARY

Permit Content Definitions

- **Permit Number:** The alphanumeric designation assigned to a permit for tracking within the building department system. Sometimes the permit number gives clues to its role, e.g. a "PL" prefix may designate a plumbing permit.
- **Description:** A field on the permit form that allows the building department to give a brief description of the work being done. More often than not, this is the most important field for EP's to find clues to the prior use (s) of the property.
- **Permit Type:** Generally a brief designation of the type of job being done. For example BLDG-RES, BLDG-COM, ELEC, MECH etc.

Sample Building Permit Data

Date: Nov 09, 2000

Permit Type: Bldg -

New Permit Number: 101000000405

Status: Valuation: \$1,000,000.00

Contractor Company: OWNER-BUILDER

Contractor Name:

Description: New one store retail (SAV-ON) with drive-thru pharmacy. Certificate of Occupancy.

APPENDIX H
PRIOR REPORTS

(This section left intentionally blank.)

PHASE I ENVIRONMENTAL SITE ASSESSMENT
11.45 Acres of Undeveloped Land
9203 South H Street
Bakersfield, California 93307

APPENDIX I
RESUMES

MCKENZIE WENGER

STAFF SCIENTIST

OFFICE LOCATION

Tempe, Arizona
 Denver, Colorado (August 2017-November 2019)

EDUCATION

BS, Chemistry with a minor in Business Administration, Northern Arizona University, 2017

CERTIFICATIONS

-AHERA Building Inspector Refresher, #ON-4644-10214-010421
 -AHERA Contractor/Supervisor, #54407-10214-012921
 -8-HR HAZWOPER Refresher, February 2021
 -MICA: Asbestos Identification Using Polarized Light Microscopy, 2017

SPECIALIZED TRAINING

-First Aid/CPR/AED, June 2021

HIRE DATE

August 2017

EXPERIENCE & RESPONSIBILITIES

McKenzie Wenger is a professional who has worked in the environmental testing and consulting industry since August 2017. She currently serves as a Staff Environmental Scientist and conducts Phase I Environmental Site Assessments (ESAs), asbestos surveys, and assists with environmental due diligence projects. She also has a diverse background with an emphasis in Asbestos Bulk Sample Analysis via polarized light microscopy.

PROJECT EXPERIENCE

City of Phoenix, Assessments – Phoenix, AZ

On-call contract with the City of Phoenix to provide ESA services for various departments including Street Transportation and Public Works. This work was performed as part of due diligence evaluations for real estate transactions. The Phase I ESA scopes typically included following the ASTM 05, ASTM 13 and All Appropriate Inquiry standard. The scopes of work included asbestos assessment to address the client's need for hazardous materials assessment services associated with the demolition and renovation of City-owned buildings.

City of Phoenix, Assessment and Remediation – Phoenix, Arizona

Provided on-call contract services for the City of Phoenix to provide asbestos assessment and abatement oversight services to address the City's growing need for hazardous materials assessment services associated with the demolition and renovation of City-owned buildings.

Arizona State University, Compliance, Various Cities, Arizona

Conducted stormwater monitoring events for compliance with the MS4 AZPDES permit.

SUMCO Phoenix, Monthly Surface Sampling Surveys, Phoenix, AZ

Completed reports and spreadsheets of analytical results and compared results to previous measured surface levels and the SUMCO's internal standard. Measured employee exposures were compared with

regulatory and voluntary occupational health exposure standards and guidelines.

Nationwide, Compliance, Scottsdale, AZ

Conducted an inspection of petroleum product storage to create a Spill Prevention Controls and Countermeasure (SPCC) plan for aboveground storage tank and generator facilities in accordance with EPA 40 CFR 112.

Various Projects – Various Cities, Colorado

Assisted in performing multiple Phase I ESAs throughout Colorado. Activities included site reconnaissance, historical evaluations, federal, state, and local government file review, and preparation of reports documenting findings of investigations in comparison with State regulations. Projects have included portfolios of commercial sites.

Asbestos Laboratory Services- Laboratory Analyst

Responsibilities included General maintenance and daily calibration of analytical equipment; Mounting bulk asbestos samples in compliance with Standard Operating Procedures; Sample log-in and chain-of-custody maintenance throughout sample analysis; Maintenance of laboratory cleanliness and contamination control; Inventory and organization of laboratory supplies including analytical solvents and reagents; Analysis of bulk asbestos samples using Polarized Light Microscopy (PLM).

MCKENZIE WENGER

Asbestos Laboratory Services-Quality Assurance/Quality Control Monitor

Assigned analysts to analyze proficiency testing samples and established a system for effecting blind analysis of such samples. Monitored results, resolved related problems or deficiencies. Maintained record keeping system. Identified critical factors to be charted, developed and supervised process for assignment (or blind analysis) of duplicated analyses. Monitored analyst compliance with QA/QC program and documented and resolved

deficiencies. Handled analysts' questions on QA/QC related problems. Provided QA/QC program orientation to new analysts. Mrs. Wenger provided monthly formal summary reports on percentage of QC samples analyzed, reference samples analyzed, daily blank samples analyzed, and calculated percent error of analysis per month.

ROBERT PETRISKO

CLIENT PROGRAM MANAGER/SENIOR PROJECT MANAGER

OFFICE LOCATION

Tempe, Arizona

EDUCATION

B.S. Geology, Arizona State University, 1985

CERTIFICATIONS

EPA/AHERA Building Inspector

Lead Inspector

Lead Risk Assessor

SPECIALIZED TRAINING

40-Hour HAZWOPER

8-Hour HAZWOPER Site Supervisor

CPR / First Aid Trained

HIRE DATE

04/01/2012

YEARS EXPERIENCE PRIOR TO ATLAS

25

EXPERIENCE & RESPONSIBILITIES

Mr. Petrisko has over 33 years of experience in the environmental consulting field and joined ATC in 2012. Currently, Mr. Petrisko's responsibilities at ATC include serving as client manager for due diligence work with Amerco Real Estate Company (U-Haul). His role also consists of managing Phase I/II Environmental Site Assessment (ESA) projects, assisting the department with asbestos-related projects, and to assist/mentor junior staff while providing expertise and viable solutions to difficult projects. As a Senior Environmental Professional, his responsibilities have consisted of management of ESAs and Transaction Screens, Phase II investigations, National Environmental Policy Act (NEPA) work, large-scale due diligence studies, regulatory compliance, and asbestos, lead-based paint, radon and mold sampling. Mr. Petrisko's extensive Phase I ESA experience has involved city airports, manufacturing facilities, bombing ranges, Air Force base closures, telecommunication sites, right-of-way acquisitions and corridor studies, among others. Phase II projects have involved underground storage tank (UST) investigations and removals, dry well investigations and abandonments, and soil sampling, remediation and disposal.

PROJECT EXPERIENCE

City of Phoenix, Street Transportation Department

Program Manager for the City of Phoenix Environmental Site Assessment and Biological Services On-Call Contract, which is utilized for Phase I/II ESAs and environmental investigations by the Community Noise Reduction Program (CNRP) for properties surrounding the City of Phoenix Sky Harbor Airport. The City of Phoenix utilizes the CNRP for the acquisition of properties located in Phoenix and Tempe in neighborhoods that are most severely impacted by noise from Sky Harbor. The contract has also been utilized for the Light Rail Program, Neighborhood Services, and Water Services Departments for the acquisition of properties and right-of-ways. Scope of work includes Phase I ESAs, Phase II investigations such as soil sampling and geophysical surveys, community involvement and facets of archaeological work.

City of Phoenix, Aviation Department

Project Manager for the Collins Metal Finishing Project for the City of Phoenix, which consisted of the remediation of soils

contaminated with heavy metals beneath a former metals plating operation. The project initially included a Phase I and Phase II ESA prior to the preparation of a Remedial Action Work Plan and oversight of remediation activities. The work plan was accepted by Arizona Department of Environmental Quality (ADEQ) and entailed additional characterization of slab material and former underground process waste disposal system, along with procedures for identifying, managing, and disposing of listed and characteristic hazardous waste generated during remediation activities. The remediation activities consisted of the excavation of over 2,500 tons of hazardous soil and over 200 tons of non-hazardous soil. The 12-month project resulted in a No Further Action (NFA) determination from ADEQ without comment and allowed the continuing construction of the new Sky Harbor Airport "Sky Train".

Williams Gateway Authority, Mesa, AZ

Principal Scientist for evaluating potential environmental risk associated with owning and/or operating the former Williams Air Force Base. The scope of

Robert Petrisko

Client Program Manager / Senior Project Manager

work included an extensive review of base closure documentation to summarize environmental conditions (including asbestos and lead-based paint), their current status, and to identify areas of environmental concern and liability not previously investigated. Over the three-month period of fieldwork, more than 400 historical buildings, structures, and areas were identified that had not been previously addressed in prior environmental reports. Many of the structures consisted of maintenance facilities with wash racks, oil/water separators, dry wells, and a potential for USTs. The results of the study allowed the Williams Gateway Authority to understand and evaluate the liability associated with owning and operating a closed Air Force Base.

Various Corridor Projects, Throughout AZ

Project Manager providing environmental corridor studies for flood control channels, freeways, transmission lines and a riparian habitat restoration area. Roadway projects have included the Red Mountain Freeway, Loop 101 Price Freeway, Interstate-19 (San Xavier Road to Ajo Way), State Route 303 (Waddell Road to Mountain View Boulevard), State Route 260 in Payson, and the Andy Devine Landscaping Project – Route 66 in Kingman for the Arizona Department of Transportation. Flood Control channel projects for the Maricopa County Flood Control District have included the 75th Avenue Storm Drain Channelization, Laveen Area Conveyance Channel, New River Bank Stabilization and Channelization, Reems Road Channelization, and numerous phases of the Queen Creek and Sonoqui Wash Channelization Projects. Other corridor projects have included transmission lines for Tucson Electric Power and the Rio Salado Oeste, an 8-mile riparian habitat restoration area for the City of Phoenix.

Barry M. Goldwater Bombing Range, Southern, AZ

Project Coordinator for a large-scale due diligence project consisting of almost 100,000 acres within a portion of the Barry M. Goldwater Bombing Range. The range serves the U.S. Air Force and the U.S. Marine Corps as an armament and high-hazard testing area for aerial gunnery, rocketry, electronic warfare, and tactical maneuvering and air support. Although the portion of the range for the study was restricted from use during our site visit, our team required accompaniment by representatives of Luke Air Force Base in case unexploded ordnance was encountered. The study was conducted for a potential land swap which was completed one week ahead of schedule.

Davis-Monthan Air Force Base, Tucson, AZ

Project Coordinator and key individual for conducting a Hazardous Materials Survey, Asbestos Survey, and Lead-based Paint Survey at seven buildings proposed for demolition at the base. The survey involved primarily Aircraft Ground Equipment buildings and flight-line buildings and was conducted while 80% of the buildings were occupied and in operation. Aside from the identification of asbestos-containing building materials and building materials containing lead-based paint, the primary scope of work was to identify building components that would need to be removed prior to demolition. These components consisted of PCB-containing light ballasts, fluorescent lighting tubes, mercury-containing switches or thermostats, freon-containing devices, and batteries. The project also involved investigating the presence of USTs, septic systems and wash racks that were associated with the buildings.



ROBERT PETRISKO

Chandler Municipal Airport, Chandler, AZ

Project Manager Principal Scientist for conducting a Phase I Environmental Baseline Survey of the Chandler Municipal Airport. The primary task involved evaluating, investigating, and summarizing the complex environmental history of the airport with the intent of identifying the best-suited areas for future tenant leases. Environmental issues related to the airport property included leaking and removed USTs, contaminated dry wells, pesticide-contaminated soil at former crop dusting facilities, unregistered dumps and the chemical handling practices of current tenants. The results of the study allowed City of Chandler to plan future development and expansion of the airport.

Adair Memorial Park, Yuma, AZ

Project Manager for Risk Evaluation, Remedial Feasibility Determination and Innovative Cover Design for Lead Impacted Soil at the Adair Memorial Park. The scope of work included the risk evaluation and remedial feasibility study for lead impacted soil resulting from historical silver mining operations at this approximately 13-acre site. Remedial options evaluated included excavation, in-situ stabilization (including both proprietary and generic approaches) and cover design options. The design accounted for complex terrain and incorporated flood control district considerations including stormwater runoff calculations, erosion control and retention basin design. Utilized handheld XRF and laboratory analysis for confirmation in areas where lead impacted soil was relocated. Combined approach utilizing Yuma County field personnel and equipment, and chipseal design saved client hundreds of thousands of dollars. The project received a NFA letter from the ADEQ Voluntary Remediation Program and received commendation from the EPA.

Rio Salado Oeste, Phoenix, AZ

Principal Scientist for a proposed riparian habitat restoration area (Rio Salado Oeste) to identify known or suspected environmental contamination and determine existing groundwater quality and locations for potential production well sites. Major tasks included developing a scope of work to identify environmental concerns in a 20-square mile area developed with industrial-type businesses. Aspects of the work consisted of the determination and inventory of existing land use, the research and compilation of Arizona Department of Water Resources well records and recommendations for well siting.

Tucson Electric Power, Throughout AZ

Served as Project Coordinator of due diligence study/fatal flaw analysis for the acquisition of 64 electric and gas sites in Arizona. With a timeframe of less than three days, numerous teams of site inspectors were organized within six counties to investigate substations, regulator stations, service centers, operation centers and pipe yards. The work identified over 25 properties with environmental conditions warranting further investigation. Significant findings included known or suspected use of PCB-containing equipment or mercury containing gas meters, documented releases or probable impact to soils or groundwater, potential impacts from former USTs and suspected asbestos containing material.

Master Planned Community Developments, Throughout AZ

Project Manager for numerous master-planned communities including: Palm Valley Phase I through Phase V Master Planned Community developments; Wigwam Golf Course and Country Club; Palm Valley Golf Club; Palm Valley Pavilions Shopping Center; Sun Lakes and Sunbird Communities/Golf Courses; Saddlebrook Resort Community; Troon Communities; and, initial developments of Lakeland Village, Vistancia South and Vistancia North. Project fieldwork consisted of investigating and assessing several thousand acres of agricultural farmland and native desert land. Many of the projects led to Phase II environmental investigations including UST, irrigation tailwater ponds, dry wells, water supply wells and pesticide contaminated soils.

Commercial Retail Stores, Throughout AZ

Project Manager for numerous environmental and asbestos-related projects for "Big Box" stores that have included: Phase I ESAs, Phase II Investigations, NEPA studies, drainage delineation and 404 Permitting with the Army Corps of Engineers; sampling for asbestos, lead-based paint, and radon; and, inspections for chlorinated fluorocarbons, mercury containing devices and polychlorinated biphenyls (PCB) in light ballasts. Major projects have involved numerous Wal-Mart stores, Sam's Clubs, Target, and COSTCO stores throughout Arizona.

PHASE I ENVIRONMENTAL SITE ASSESSMENT
11.45 Acres of Undeveloped Land
9203 South H Street
Bakersfield, California 93307

APPENDIX J
RECORDS OF CONVERSATION

McKenzie Wenger

From: JustFOIA Notification <donotreply@request.justfoia.com>
Sent: Wednesday, December 8, 2021 2:04 PM
To: McKenzie Wenger
Subject: Records Request Confirmation

Thank you for submitting a request for records.

Your request security key is 367286
Your request reference number is PRR-16496-2021

Please have this security key and reference number available when communicating with our staff regarding your request.

If you have any questions regarding your City Public Records Request I can be reached at (661) 326-3767. Questions regarding your Police Department Public Records Request please contact Bakersfield Police Department at 661-326-3854.

Regards,

Julie Drimakis, CMC
City Clerk
City of Bakersfield

Note: This is an automated email notification. Please do not respond to this email.

McKenzie Wenger

From: PublicRecordsConfirmation@valleyair.org
Sent: Monday, December 13, 2021 10:18 AM
To: McKenzie Wenger
Subject: [EXTERNAL] Confirmation of Your Public Records Request

[External Email] This email originated from outside of the Atlas mail system. Please use caution when opening attachments.

The San Joaquin Valley Air Pollution Control District has received your Public Records Request and it is currently being processed.

The Control Number for this request is 'C-2021-12-61'.

When calling or emailing the District about this request please include the Control Number assigned to this request. For more information about the Air District, call a regional office in Fresno (559-230-6000), Modesto (209-557-6400) or Bakersfield (661-392-5500).

McKenzie Wenger

From: Nannette Diaz <Nannette.Diaz@valleyair.org>
Sent: Monday, December 13, 2021 12:48 PM
To: McKenzie Wenger
Subject: [EXTERNAL] Public Records Request C-2021-12-61; Vacant Land

[External Email] This email originated from outside of the Atlas mail system. Please use caution when opening attachments.

December 13, 2021

McKenzie Wenger
Atlas Technical
9185 South Farmer Avenue, Suite 111
Tempe, AZ 85284

SUBJECT: Public Records Request
LOCATION: 9203 S. H Street, Bakersfield, CA

Dear McKenzie Wenger:

The District has processed your request for information regarding the above mentioned site address/location. A search of the District's databases has returned no records on file for this location.

If you have any questions, or need additional information, please contact me at the number below.

Respectfully,

Nannette Diaz
Senior Office Assistant
San Joaquin Valley Air Pollution Control District
34946 Flyover Court, Bakersfield, CA 93308-9725 phone (661) 392-5506 fax (661) 392-5585
nannette.diaz@valleyair.org

APPENDIX K

LABORATORY REPORTS

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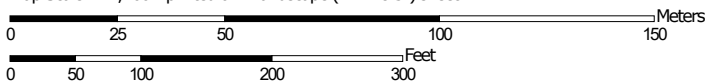
PHASE I ENVIRONMENTAL SITE ASSESSMENT
11.45 Acres of Undeveloped Land
9203 South H Street
Bakersfield, California 93307

APPENDIX L
OTHER SUPPORTING DOCUMENTATION

Soil Map—Kern County, California, Northwestern Part

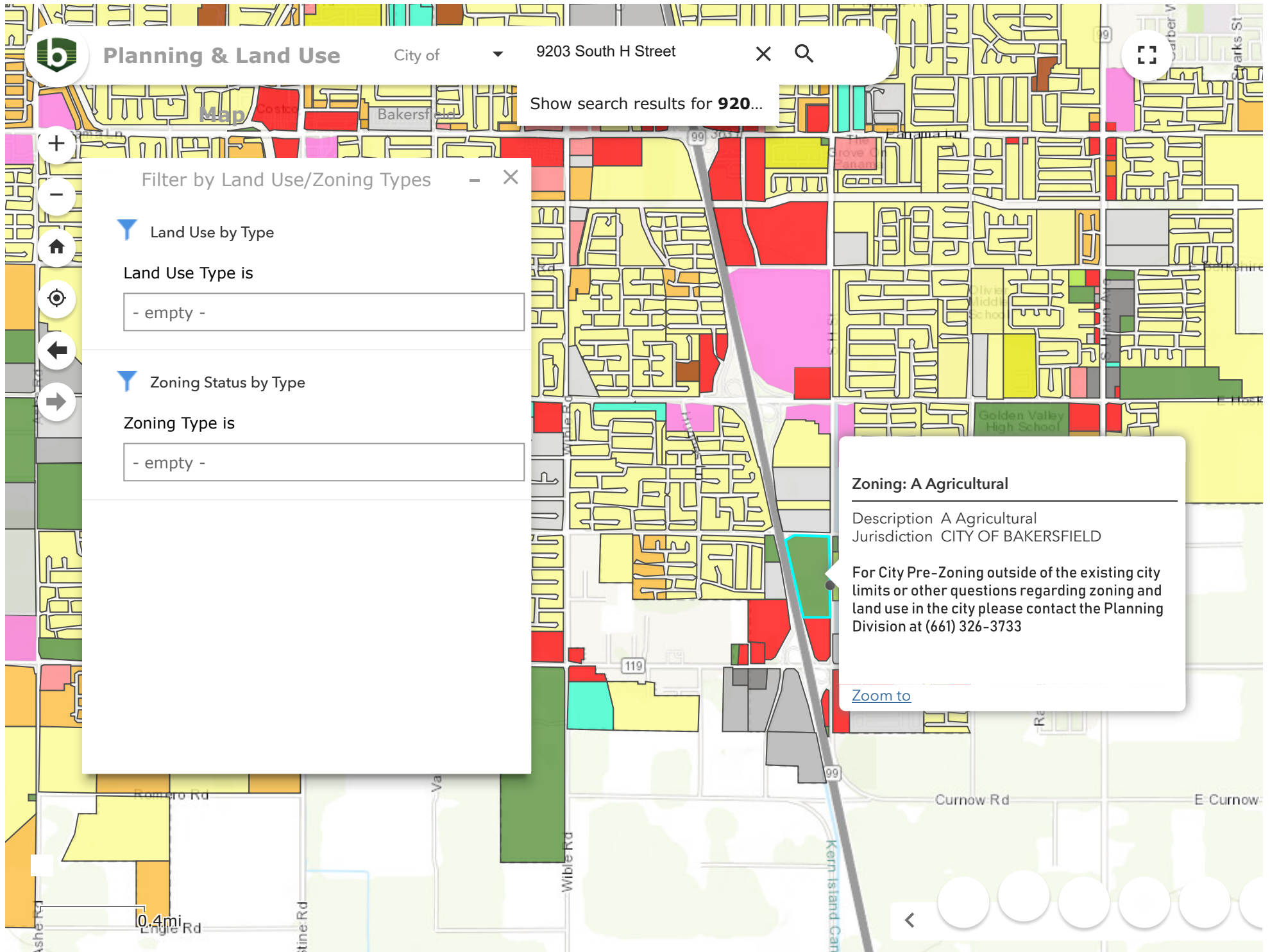


Map Scale: 1:1,760 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84





Planning & Land Use

City of ▼ 9203 South H Street ✕ 🔍

Show search results for 920...

Filter by Land Use/Zoning Types - ✕

▶ Land Use by Type

Land Use Type is

- empty -

▶ Zoning Status by Type

Zoning Type is

- empty -

Zoning: A Agricultural

Description A Agricultural
Jurisdiction CITY OF BAKERSFIELD

For City Pre-Zoning outside of the existing city limits or other questions regarding zoning and land use in the city please contact the Planning Division at (661) 326-3733

[Zoom to](#)

Kern County, California, Northwestern Part

127—Granoso sandy loam, 0 to 2 percent slopes, overwash

Map Unit Setting

National map unit symbol: hkh5
Elevation: 300 to 490 feet
Mean annual precipitation: 5 to 7 inches
Mean annual air temperature: 62 to 65 degrees F
Frost-free period: 250 to 300 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Granoso and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Granoso

Setting

Landform: Alluvial fans, flood plains
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from mixed rock sources

Typical profile

Ap - 0 to 10 inches: sandy loam
C1 - 10 to 20 inches: loamy sand
C2 - 20 to 36 inches: sand
C3 - 36 to 62 inches: sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High
(1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: RareNone
Frequency of ponding: None
Calcium carbonate, maximum content: 3 percent
Maximum salinity: Nonsaline to very slightly saline (0.1 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: Low (about 4.9 inches)

Interpretive groups

Land capability classification (irrigated): 3s
Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: A
Ecological site: R017XY906CA - Non-Alkali San Joaquin Valley Desert
Hydric soil rating: No

Minor Components

Kimberlina

Percent of map unit: 3 percent
Landform: Flood plains, alluvial fans
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R017XY904CA - Subirrigated Deep Alluvial Fans
Hydric soil rating: No

Milagro, fine sandy loam

Percent of map unit: 3 percent
Landform: Fan skirts, alluvial fans
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R017XY904CA - Subirrigated Deep Alluvial Fans
Hydric soil rating: No

Bakersfield

Percent of map unit: 3 percent
Landform: Flood plains
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R017XY904CA - Subirrigated Deep Alluvial Fans
Hydric soil rating: Yes

Excelsior

Percent of map unit: 3 percent
Landform: Alluvial fans, flood plains
Landform position (three-dimensional): Tread, talf
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R017XY904CA - Subirrigated Deep Alluvial Fans
Hydric soil rating: No

Wasco

Percent of map unit: 2 percent
Landform: Alluvial fans, flood plains
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R017XY904CA - Subirrigated Deep Alluvial Fans
Hydric soil rating: No

Unnamed, slough

Percent of map unit: 1 percent

Landform: Sloughs
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

Data Source Information

Soil Survey Area: Kern County, California, Northwestern Part
Survey Area Data: Version 14, Sep 3, 2021

Kern County, California, Northwestern Part

174—Kimberlina fine sandy loam, 0 to 2 percent slopes MLRA 17

Map Unit Setting

National map unit symbol: 2ss96

Elevation: 120 to 1,160 feet

Mean annual precipitation: 4 to 8 inches

Mean annual air temperature: 63 to 64 degrees F

Frost-free period: 240 to 300 days

Farmland classification: Prime farmland if irrigated

Map Unit Composition

Kimberlina and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kimberlina

Setting

Landform: Alluvial fans

Landform position (three-dimensional): Talf

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Alluvium derived from igneous and sedimentary rock

Typical profile

Ap - 0 to 9 inches: fine sandy loam

C - 9 to 45 inches: fine sandy loam

2C - 45 to 71 inches: silt loam

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Runoff class: Very low

Capacity of the most limiting layer to transmit water

(Ksat): Moderately high to high (0.57 to 1.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: RareNone

Frequency of ponding: None

Calcium carbonate, maximum content: 10 percent

Maximum salinity: Nonsaline to slightly saline (0.3 to 4.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water supply, 0 to 60 inches: Moderate (about 8.7 inches)

Interpretive groups

Land capability classification (irrigated): 1
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Wasco

Percent of map unit: 7 percent
Landform: Alluvial fans
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Milham

Percent of map unit: 6 percent
Landform: Alluvial fans
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Unnamed

Percent of map unit: 2 percent
Landform: Flood plains
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

Data Source Information

Soil Survey Area: Kern County, California, Northwestern Part
Survey Area Data: Version 14, Sep 3, 2021


MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Kern County, California, Northwestern Part

Survey Area Data: Version 14, Sep 3, 2021

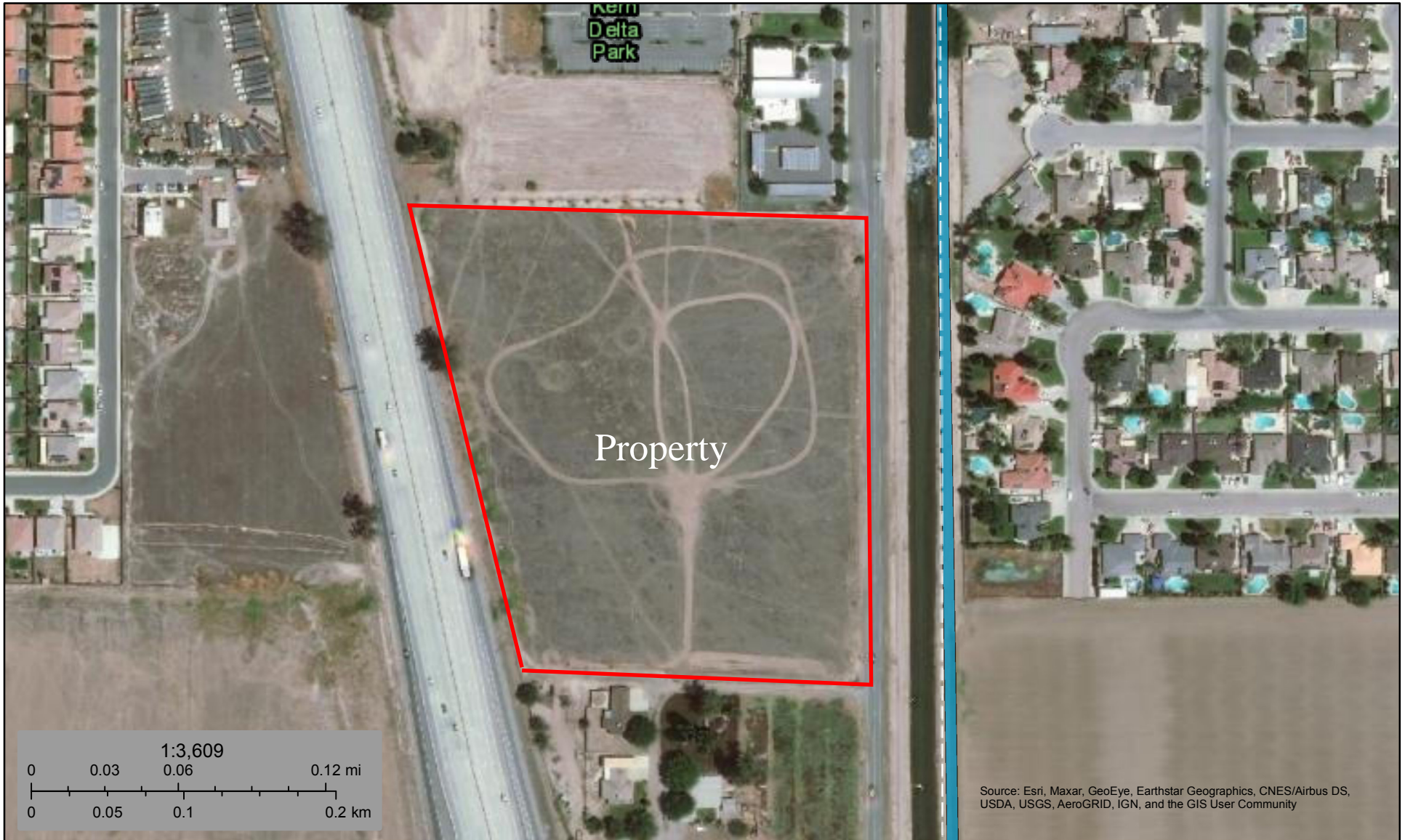
Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Feb 9, 2020—Feb 25, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
127	Granoso sandy loam, 0 to 2 percent slopes, overwash	3.7	34.0%
174	Kimberlina fine sandy loam, 0 to 2 percent slopes MLRA 17	7.2	66.0%
Totals for Area of Interest		11.0	100.0%



December 13, 2021

Wetlands

- Estuarine and Marine Deepwater
- Freshwater Emergent Wetland
- Lake
- Estuarine and Marine Wetland
- Freshwater Forested/Shrub Wetland
- Other
- Freshwater Pond
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

ENVIROSTOR

9203 South H Street, Bakersfield, CA

Map Address [tms](#)

Sites and Facilities

Cleanup Sites

- Federal Superfund
- State Response
- Voluntary Cleanup
- School Cleanup
- Evaluation
- School Investigation
- Military Evaluation
- Tiered Permit
- Corrective Action
- Field Points

STATUS

[All Statuses](#)

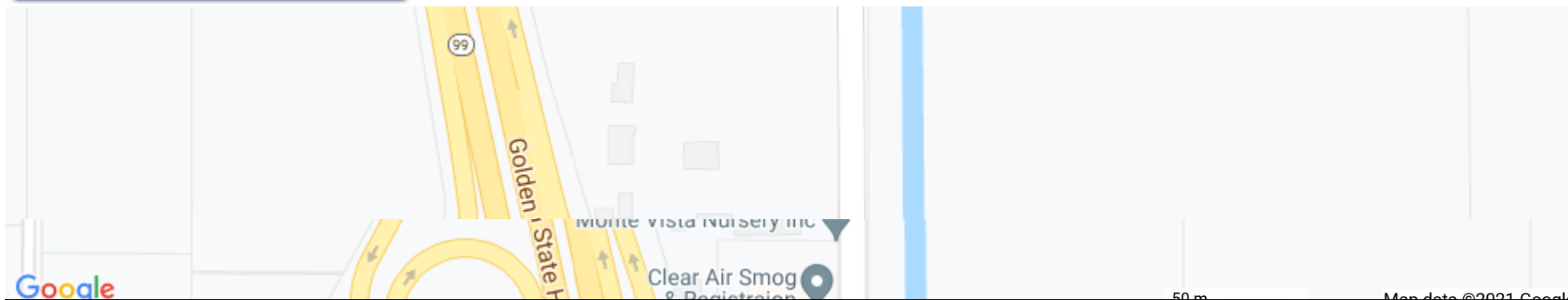
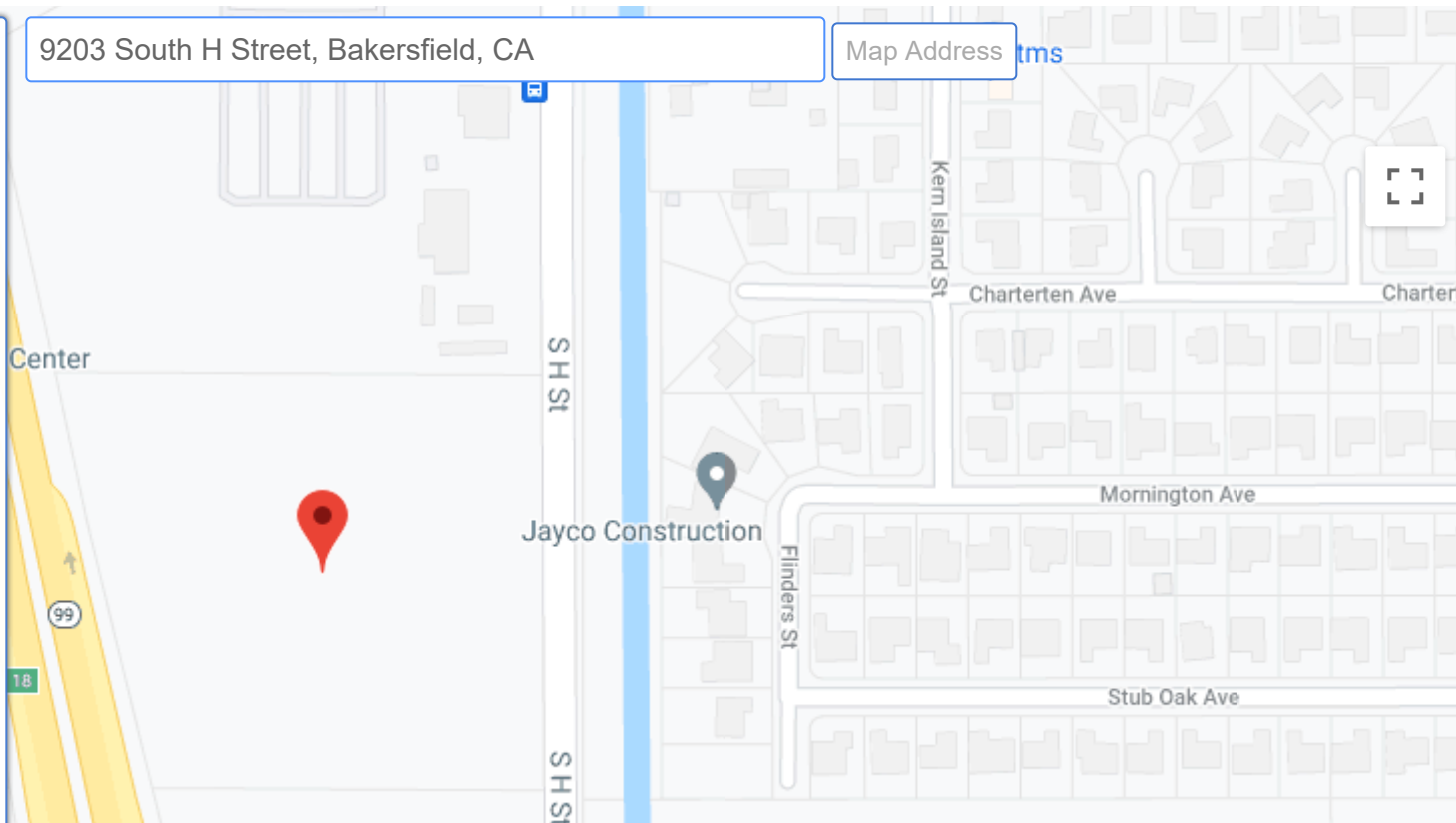
Permitted Sites

- Operating
- Post-Closure
- Non-Operating

Other Sites

GIS Layers

Tools

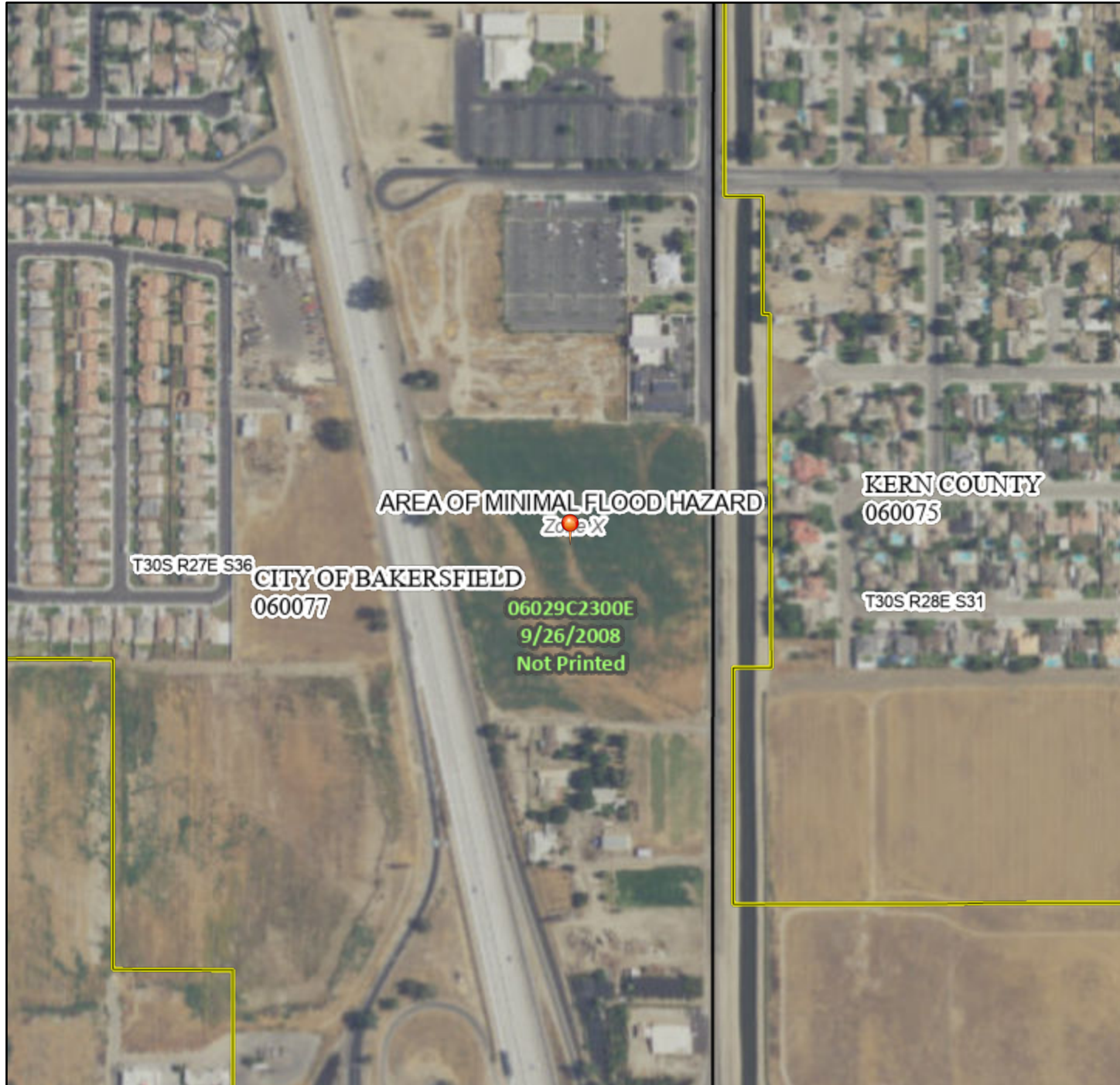


SITES CURRENTLY VISIBLE ON MAP

National Flood Hazard Layer FIRMette



119°1'40"W 35°16'32"N



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D

OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D

GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall

OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline

MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped

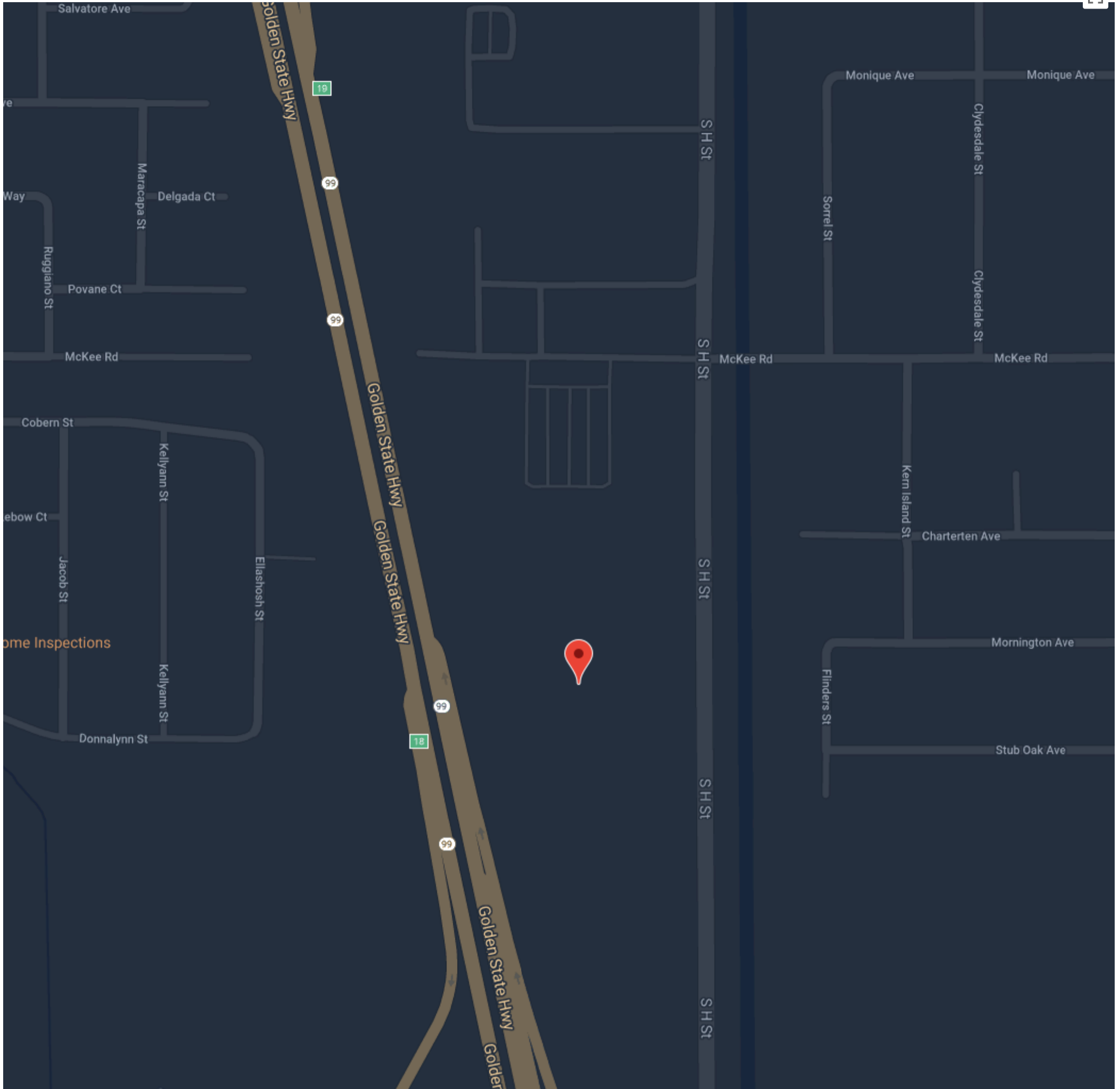


The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **12/13/2021 at 12:45 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



LEGEND - CHOOSE MORE SITES ✕

- LUST Cleanup Sites - [REMOVE](#)
- Cleanup Program Sites - [REMOVE](#)
- Military Cleanup Sites - [REMOVE](#)
- Military Privatized Sites - [REMOVE](#)
- Military UST Sites - [REMOVE](#)

Signifies a Closed Site

ACTIVE MAP COVERAGES:

- Military Bases - [REMOVE](#)

[LIST SITES VISIBLE ON MAP](#)

50 m Map data ©2021 Google

Sites Shown on Map: 1 Total Sites 0 Open Sites 1 Closed Sites 0 Sites w/Water Quality Data

2020

Water Quality Report

BAKERSFIELD DISTRICT

City of Bakersfield's Domestic Water System



Este informe contiene información muy importante sobre su agua potable.
Tradúzcalo o hable con alguien que lo entienda bien.

Quality. Service. Value.®



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Welcome

California Water Service (Cal Water) and the City of Bakersfield's Water Resources Department continue to be committed to our promise to provide quality, service, and value to you and your community. One of the most important ways we do this is by providing a reliable supply of safe, high-quality water any time you turn on the tap. And, while standards continue to become more stringent, our commitment to you never wavers.

In the City of Bakersfield's Domestic Water System in 2020, we conducted 41,815 tests on 9,583 water samples for 200 constituents. **We are pleased to confirm that we met every primary and secondary state and federal water quality standard last year.**

Fulfilling our promise to provide quality, service, and value means more than treatment and testing, however. It also means maintaining and upgrading the infrastructure needed to transport water from the source to your tap through a network of pumps, tanks, and pipes. It means having expert professionals available to help you with both routine service needs and emergencies. It also means that, although the costs to obtain, treat, test, store, and deliver the water continue to increase across the country, we do everything we can to operate

as efficiently as possible to keep your water affordable – less than a penny per gallon in most of our service areas, in fact.

We encourage you to review this annual water quality report, also called your Consumer Confidence Report, as it details any constituents detected in your water supply in 2020 and shows how your water compares to federal and state standards. It also provides information on current water quality issues and steps we are taking to protect your health and safety.

If you have any questions, we are here to assist you. You can reach us by phone, online at www.calwater.com, or in person at our local Customer Center. You can also get water service news on our web site, via our Facebook, Twitter, and Instagram pages, and in your monthly bill. And, please be sure your contact information with Cal Water is up to date by visiting ccu.calwater.com, to ensure we can reach you with important emergency and other information.

Sincerely,

Tammy Johnson, District Manager, Bakersfield District

Art Chianello, Water Resources Manager, City of Bakersfield

[Bakersfield District 3725 South H Street Bakersfield, CA 93304 (661) 837-7200]

Your Water System

Cal Water began providing high-quality water utility services for the City of Bakersfield's Domestic Water System in 1976. In partnership with the City of Bakersfield, we meet customers' needs using a combination of local groundwater produced by 62 active wells (treated where necessary to improve taste and odor), surface water from the Kern River (treated with highly advanced membrane filtration), and treated water purchased from the Kern County Water Agency.

Our company-wide water quality assurance program includes vigilant monitoring throughout our systems and testing at our state-of-the-art laboratory. Additionally, we proactively maintain and upgrade our facilities to ensure a reliable, high-quality supply. Together, we are evaluating treatment technologies to bring wells back online, and we have plans to construct three new wells.

If you have any questions, suggestions, or concerns, please contact our local Customer Center, either by phone at (661) 837-7200 or through the Contact Us link at www.calwater.com.

WATER RESOURCE SUSTAINABILITY

Cal Water helps our customers conserve water by offering programs and incentives to reduce indoor and outdoor water use, develop more efficient habits, and educate the next generation about the importance of managing water resources sustainably. We also continue to invest diligently in our infrastructure to reduce the amount of water lost to pipeline leaks and are updating our assessment of the impacts of climate change on water supply and demand. As we await more information on the long-term water-use regulations from the State of California, it's important that we make water-use efficiency a way of life. Using water wisely will ensure that we have enough water in dry years and for generations to come.

Visit www.calwater.com/conservation for details.

Water Quality

THE WATER QUALITY LAB

Water professionals collect samples from throughout the water system for testing at our state-of-the-art water quality laboratory, which is certified each year through the stringent Environmental Laboratory Accreditation Program (ELAP). Scientists, chemists, and microbiologists test the water for 326 constituents with equipment so sensitive it can detect levels as low as one part per trillion. In order to maintain the ELAP certification, all of our scientists must pass blind-study proficiency tests for every water quality test performed. Water quality test results are entered into our Laboratory Information Management System (LIMS), a sophisticated software program that enables us to react quickly to changes in water quality and analyze water quality trends in order to plan effectively for future needs.

CROSS-CONNECTION CONTROL

To ensure that the high-quality water we deliver is not compromised in the distribution system, Cal Water has a robust cross-connection control program in place. Cross-connection control is critical to ensuring that activities on customers' properties do not affect the public water supply. Our cross-connection control specialists ensure that all of the existing backflow prevention assemblies are tested annually, assess all connections, and enforce and manage the installation of new commercial and residential assemblies.

Backflow can occur when certain pressure conditions exist either in our distribution system or within the customer's plumbing, so our customers are our first line of defense. A minor home improvement project—without the proper protections—can create a potentially hazardous situation, so careful adherence to plumbing codes and standards will ensure the community's water supply remains safe. Please be sure to utilize the advice or services of a qualified plumbing professional.

Many water-use activities involve substances that, if allowed to enter the distribution system, would be aesthetically displeasing or could even present health concerns. Some common cross-connections are:

- Garden hoses connected to a hose bib without a simple hose-type vacuum breaker (available at a home improvement store)
- Improperly installed toilet tank fill valves that do not have the required air gap between the valve or refill tube
- Landscape irrigation systems that do not have the proper backflow prevention assembly installed on the supply line

The list of materials that could potentially contaminate the water system is vast. According to the EPA, a wide variety of substances have contaminated drinking water systems throughout the country as a result of poor cross-connection control. Examples include:

- Antifreeze from a heating system
- Lawn chemicals from a garden hose or sprinkler head
- Blue water from a toilet tank
- Carbonated water from a soda dispenser

Customers must ensure that all plumbing is in conformance with local plumbing codes. Additionally, state law requires certain types of facilities to install and maintain backflow prevention assemblies at the water meter. Cal Water's cross-connection control staff will determine whether you need to install a backflow prevention assembly based on water uses at your location.



DWSAPP

By the end of 2002, Cal Water had submitted to the Division of Drinking Water (DDW) a Drinking Water Source Assessment and Protection Program (DWSAPP) report for each water source in the water system. The DWSAPP report identifies possible sources of contamination to aid in prioritizing cleanup and pollution prevention efforts. All reports are available for viewing or copying at our Customer Center.

The water sources in the City of Bakersfield system are considered most vulnerable to:

- Agriculture
- Stormwater
- Wastewater
- Surface water (streams, lakes, rivers)
- Lumbering industries/retailers
- Wood treatment
- Paper production
- Metal plating/fabrication
- Photo processing
- Electrical/electronic manufacturing
- Large equipment storage yards
- Above- and underground storage tanks
- Drinking water treatment plants
- Parking lots/malls
- Research laboratories
- High-density housing
- Wells (water supply, agricultural, oil, gas, geothermal)
- Known contaminant plumes
- Parks

- Utility stations (maintenance areas)
- Chemical/petroleum industries
- Chemical/pesticide/fertilizer/petroleum storage
- Existing and historic gas stations
- Dry cleaners
- Dredging
- Automobile repair shops
- Artificial recharge projects (spreading basins)
- Sewer collection systems
- Storm drain discharge points
- High-density septic systems

We encourage customers to join us in our efforts to prevent water pollution and protect our most precious natural resource.

2020 Results

FLUORIDE

State law requires Cal Water to add fluoride to drinking water if public funding is available to pay for it, and it is a practice endorsed by the American Medical Association and the American Dental Association to prevent tooth decay. In this area, low levels of fluoride occur naturally, and Cal Water doesn't add any to the water supply. Show the table in this report to your dentist to see if he or she recommends giving your children fluoride supplements.

More information about fluoridation, oral health, and related issues can be found on the DDW web site at www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.html. For general information on water fluoridation, visit us online at www.calwater.com.

WATER HARDNESS

Hardness is a measure of the magnesium, calcium, and carbonate minerals in the water. Water is considered **soft** if its hardness is less than 75 parts per million (ppm), **moderately hard** at 75 to 150 ppm, **hard** between 150 and 300 ppm, and **very hard** at 300 ppm or higher.

Hard water is generally not a health concern, but it can have an impact on how well soap lathers and is significant for some industrial and manufacturing processes. Hard water may also lead to mineral buildup in pipes or water heaters.

Some people with hard water opt to buy a water softener for aesthetic reasons; however, some water softeners add salt to the water, which can cause problems at wastewater treatment plants. Additionally, people on low-sodium diets should be aware that some water softeners increase the sodium content of the water.

For more information on water hardness, visit www.calwater.com/video/hardness.

Possible Contaminants

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk.

More information about contaminants and potential health effects can be obtained by calling the United States Environmental Protection Agency (EPA) Safe Drinking Water Hotline at (800) 426-4791.

The sources of drinking water (both tap and bottled) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or human activity.

CONTAMINANTS THAT MAY BE PRESENT IN SOURCE WATER INCLUDE:

Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.

Radioactive contaminants, which can be naturally occurring or the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the EPA and DDW prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised people, such as those with cancer undergoing chemotherapy, those who have undergone organ transplants, and those with HIV/AIDS or other immune system disorders; some elderly people; and infants can be particularly at risk from infections. These people should seek advice from their health care providers about drinking water. EPA and Centers for Disease Control and Prevention (CDC) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline.

About Lead

As the issue of lead in water continues to be top of mind for many Americans, Cal Water wants to assure you about the quality of your water. We are compliant with health and safety codes mandating use of lead-free materials in water system replacements, repairs, and new installations. We have no known lead service lines in our systems. We test and treat (if necessary) water sources to ensure that the water delivered to customer meters meets all water quality standards and is not corrosive toward plumbing materials.

The water we deliver to your home meets lead standards. However, if present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing (for example, lead solder used to join copper plumbing, and brass and other lead-containing fixtures).

Cal Water is responsible for providing high-quality drinking water to our customers' meters, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking.

If you are concerned about lead in your water, you may wish to have your water tested by a certified lab. More information about lead in drinking water can be found on the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.

In your system, results from our lead monitoring program, conducted in accordance with the Lead and Copper Rule, were below the action level for the presence of lead.

Testing for Lead in Schools

The State of California required that all public schools built before 2010 test for lead in their drinking water by July 1, 2019. We are committed to supporting our school districts' efforts to protect students and ensure that the drinking water at their school sites are below lead limits.

We worked with all school districts in our service area that serve kindergarten through 12th grade to develop sampling plans, test samples, and conduct follow-up monitoring, if needed, for corrective actions.

For more information, please see our [Testing for Lead in Schools](#) web page. For specific information regarding local school data, see the [state web portal](#).

Lead and Copper Rule

The lead and copper rule requires us to test water inside a representative number of homes that have plumbing most likely to contain lead and/or lead solder to determine the presence of lead and copper or any action level exceedance (AL). An action level is the concentration of a contaminant which, when exceeded,

triggers corrective actions before it becomes a health concern. If action levels are exceeded, either at a customer's home or system-wide, we work with the customer to investigate the issue and/or implement corrosion control treatment to reduce lead levels.

Lead Service Line Inventory (LSLI)

Protecting our customers' health and safety is our highest priority. As part of this commitment, we have been working to identify and replace any old customer water service lines and fittings that may contain lead. California Senate Bill (SB) 1398 required all water utilities in California to develop an inventory of all distribution service line materials, and submit a list of known service lines to the state by 2018. A list of unknown service lines that may contain lead, along with a plan for replacement, was due to the state by July 1, 2020. Known lines are replaced as soon as possible.

More information regarding LSLI and specific data for each water system can be found on [the state web site](#).

PFOA and PFOS

PFOS and PFOA are manmade compounds used prevalently in firefighting foams and to make carpets, clothing, fabrics for furniture, paper packaging for food, cookware, and other items resistant to water, grease, fire, or stains. They are also used in a number of industrial processes. They are part of a larger group of chemicals referred to as per- and poly-fluoroalkyl substances (PFAS).

In early 2020, DDW announced lower response levels for PFOA and PFOS (10 ppt for PFOA, and 40 ppt for PFOS) from the previous level of 70 ppt combined. The notification levels (5.1 ppt for PFOA, and 6.5 ppt for PFOS) were not changed.

Knowing that these are constituents of emerging concern, Cal Water had identified and tested water sources in 2019 and earlier that would be more likely to have these compounds present. With the updated response levels, we have conducted additional testing for these constituents in all of our water systems.

Studies indicate that long-term exposure to PFOS and PFOA over certain levels could have adverse health effects, including developmental effects to fetuses during pregnancy or infants; cancer; or liver, immunity, thyroid, and other effects. Potential health impacts related to PFAS compounds are still being studied, and research is still evolving on this issue.

Although there is no Maximum Contaminant Level (MCL) set for these substances, we have proactively monitored sources and will continue to do so. Even though it is not required by the state, we believe it is the right thing to do. When an MCL is established by DDW for these compounds, we will continue to ensure our water sources are in compliance with any set standard.

While we are doing our part to treat the water and meet the standards the public health experts have set, it's important that our population as a whole focuses on being good stewards of the environment and takes steps to prevent impacting the water supply. Additionally, Cal Water has filed a lawsuit against a group of companies that manufactured and sold firefighting foam products that released the PFOS and PFOA into the environment, to ensure the responsible parties bear the costs of treating for these chemicals, not our customers. We are also encouraging the EPA to establish a consistent, science-based standard as quickly as feasible, and strongly support state legislation prohibiting the sale and use of certain products that contain PFAS and requiring the certification of accurate testing methods for PFAS.

More information on PFOS and PFOA is available [on the DDW web site](#).

Key Definitions

MAXIMUM CONTAMINANT LEVEL (MCL)

The highest level of a contaminant that is allowed in drinking water. Primary MCLs protect public health and are set as close to the PHGs (or MCLGs) as are economically and technologically feasible. Secondary MCLs (SMCLs) relate to the odor, taste, and appearance of drinking water.

IN COMPLIANCE

Does not exceed any applicable MCL, SMCL, or action level, as determined by DDW. For some compounds, compliance is determined by averaging the results for one source over a one-year period.

REGULATORY ACTION LEVEL (AL)

The concentration of a contaminant which, if exceeded, triggers treatment or other required action by the water provider.

MAXIMUM CONTAMINANT LEVEL GOAL (MCLG)

The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the EPA.

MAXIMUM RESIDUAL DISINFECTANT LEVEL (MRDL)

The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MAXIMUM RESIDUAL DISINFECTANT LEVEL GOAL (MRDLG)

The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs are set by the EPA and do not reflect the benefits of the use of disinfectants to control microbial contaminants.

NON-DETECT (ND)

The constituent was not detected.

NOTIFICATION LEVEL (NL) AND RESPONSE LEVEL (RL)

Health-based advisory levels for unregulated contaminants in drinking water. They are used by DDW to provide guidance to drinking water systems.

PRIMARY DRINKING WATER STANDARD (PDWS)

MCLs and MRDLs for contaminants that affect health, along with their monitoring, reporting, and water treatment requirements.

PUBLIC HEALTH GOAL (PHG)

The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency's Office of Environmental Health Hazard Assessment without regard to cost or available detection and treatment technologies.

TREATMENT TECHNIQUE (TT)

A required process intended to reduce the level of a contaminant in drinking water.

Table Introduction

CAL WATER TESTS YOUR WATER FOR MORE THAN 140 REGULATED CONTAMINANTS AND DOZENS OF UNREGULATED CONTAMINANTS. THIS TABLE LISTS ONLY THOSE CONTAMINANTS THAT WERE DETECTED.

In the table, water quality test results are divided into four major sections: “Primary Drinking Water Standards,” “Secondary Drinking Water Standards,” “State-Regulated Contaminants with Notification Levels,” and “Unregulated Compounds.” Primary standards protect public health by limiting the levels of certain constituents in drinking water. Secondary standards are set for substances that don’t impact health but could affect the water’s taste, odor, or appearance. Some unregulated substances (hardness and sodium, for example) are included for your information. The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

SUBSTANCE SOURCES

BB	Major biodegradation byproduct of TCE and PCE groundwater contamination	IC	Internal corrosion of household plumbing systems
BN	Banned nematocide that may still be present in soils due to runoff/leaching from former use on soybeans, cotton, vineyards, tomatoes, and tree fruit	IM	Discharge from industrial manufacturers
BT	Banned nematocide that may still be present in soils due to runoff and leaching from grain and fruit crops	IO	Substances that form ions when in water
CF	Discharge from industrial chemical factories	IW	Industrial waste
DI	Byproduct of drinking water disinfection	MD	Discharge from metal-degreasing sites and other factories
DS	Drinking water disinfectant added for treatment	MF	Discharge from metal factories
EN	Naturally present in the environment	OC	Runoff from orchards; glass and electronics production waste
ER	Erosion of natural deposits	OD	Discharges of oil-drilling waste and from metal refineries
EX	Extraction and degreasing solvent; used in manufacture of pharmaceuticals, stone, clay and glass products; fumigant	OM	Naturally occurring organic materials
FD	Discharge from factories, dry cleaners, and auto shops (metal degreaser)	PG	Discharge from petroleum, glass, and metal refineries; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)
FE	Human and animal waste	PH	Inherent characteristic of water
FL	Water additive that promotes strong teeth; discharge from fertilizer and aluminum factories	PT	Discharge from petroleum refineries
FR	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage	RU	Runoff/leaching from natural deposits
IA	Discharge from industrial and agricultural chemical factories; leaching from hazardous waste sites; used as cleaning and maintenance solvent, paint and varnish remover, and cleaning and degreasing agent; byproduct of production of other compounds and pesticides	RS	Residue from some surface water treatment processes
		SO	Soil runoff
		SW	Seawater influence
		UN	Underground gas tank leaks
		WD	Leaching from wood preservatives
		UR	Unregulated constituents with no source listed and that do not have standardized “source of substance” language

Our testing equipment is so sensitive, it can detect mineral traces as small as 1 part per trillion. That is equivalent to 1 inch in over 15 million miles.

2020 Water Quality

Primary Drinking Water Standards

Microbiological	Year Tested	Unit	MCL	PHG (MCLG)	In Compliance	Distribution System-Wide				Source
						Highest Monthly				
Total coliform	2020	Positive samples	5%	(0)	Yes	0				EN
Fecal coliform and E. coli	2020	Positive samples	1 ¹	(0)	Yes	0				FE
Radiological	Year Tested	Unit	MCL	PHG (MCLG)	In Compliance	Groundwater		KCWA ²		Source
						Range	Average	Range	Average	
Gross alpha particle activity	2012–2020	pCi/L	15	(0)	Yes	ND–7.5	ND	1.9	1.9	ER
Uranium	2012–2020	pCi/L	20	0.43 (0)	Yes	ND–11	1.7	n/a	n/a	ER
Inorganic Chemicals	Year Tested	Unit	MCL	PHG (MCLG)	In Compliance	Groundwater		KCWA		Source
						Range	Average	Range	Average	
Arsenic ³	2017–2020	ppb	10	0.004 (0)	Yes	ND–9.0	ND	ND–2.1	0.53	ER, OC
Barium	2017–2020	ppm	1	2 (2)	Yes	ND–0.10	ND	n/a	n/a	ER, OD
Fluoride	2016–2020	ppm	2	1 (4.0)	Yes	ND–0.84	ND	ND–0.22	0.15	ER, FL
Nickel	2017–2020	ppb	100	12	Yes	ND–11	ND	n/a	n/a	ER, MF
Nitrate as N	2016–2020	ppm	10	10 (10)	Yes	ND–4.6	1.3	ND–1.2	0.30	ER, FR
Selenium	2017–2020	ppb	50	30 (50)	Yes	ND–50	ND	n/a	n/a	PG, ER

¹ This means one total coliform-positive routine sample and one repeat sample, with one of these also being E. coli-positive.

² A part of the system's water supply is purchased from the Kern County Water Agency (KCWA). The water provided by KCWA may have ND for some contaminants. For these instances, we put "n/a" as the data was not provided.

³ While your drinking water meets the federal and state standards for arsenic, it does contain low levels of arsenic. The arsenic standards balance the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects, such as skin damage and circulatory problems.

2020 Water Quality

(Continued)

Lead and Copper	Year Tested	Unit	AL	PHG (MCLG)	In Compliance	Distribution System-Wide		Source		
						90 th Percentile	Samples > AL			
Copper	2019	ppm	1.3	0.3	Yes	0.14	0 of 51	IC, ER, WD		
Lead	2019	ppb	15	0.2	Yes	ND	0 of 51	IC, IM, ER		
Schools that requested lead sampling in 2020: 0										
Synthetic Organic Contaminants (SOCs) including Pesticides and Herbicides	Year Tested	Unit	MCL	PHG (MCLG)	In Compliance	Groundwater		KCWA		Source
						Range	Average	Range	Average	
Dibromochloropropane	2017–2020	ppt	200	1.7 (0)	Yes	ND–57	ND	n/a	n/a	BN
Ethylene dibromide	2017–2020	ppt	50	10 (0)	Yes	ND–21	ND	n/a	n/a	PT, UN, BT
Volatile Organic Chemicals	Year Tested	Unit	MCL	PHG (MCLG)	In Compliance	Groundwater		KCWA		Source
						Range	Average	Range	Average	
1,1-Dichloroethane	2016–2020	ppb	5	3	Yes	ND–0.91	ND	n/a	n/a	EX
1,1-Dichloroethylene	2016–2020	ppb	6	10 (7)	Yes	ND–1.6	ND	n/a	n/a	CF
cis-1,2-Dichloroethylene	2016–2020	ppb	6	13 (70)	Yes	ND–0.66	ND	n/a	n/a	CF, BB
Tetrachloroethylene (PCE)	2016–2020	ppb	5	0.06 (0)	Yes	ND–2.0	ND	n/a	n/a	FD
Trichloroethylene (TCE)	2016–2020	ppb	5	1.7 (0)	Yes	ND–0.72	ND	n/a	n/a	MD
Disinfection Byproducts	Year Tested	Unit	MCL	PHG (MCLG)	In Compliance	Distribution System-Wide		Source		
						Range	Highest Annual Average			
Haloacetic acids	2020	ppb	60	n/a	Yes	ND–36	23	DI		
Total trihalomethanes	2020	ppb	80	n/a	Yes	ND–43	29	DI		
Disinfectants	Year Tested	Unit	MRDL	MRDLG	In Compliance	Distribution System-Wide		Source		
						Range	Average			
Free chlorine	2020	ppm	4	4	Yes	ND–2.2	1.3	DS		

2020 Water Quality

(Continued)

Secondary Drinking Water Standards

Contaminants	Year Tested	Unit	SMCL	PHG (MCLG)	In Compliance	Groundwater		KCWA		Source
						Range	Average	Range	Average	
Aluminum	2017–2020	ppb	200	600	Yes	ND–66	0.92	ND–130	75	ER, RS
Chloride	2016–2020	ppm	500	n/a	Yes	6.0–190	23	7.2–27	12	RL, SW
Color	2016–2020	UNITS	15	n/a	Yes	ND–5.0	1.4	n/a	n/a	OM
Specific conductance	2016–2020	US	1600	n/a	Yes	177–1250	313	179–298	222	SW, IO
Copper	2017–2020	ppm	1	0.3	Yes	ND–0.07	ND	n/a	n/a	IC, ER, WD
Iron	2016–2020	ppb	300	n/a	Yes	ND–190	ND	n/a	n/a	RL, IW
Odor ¹	2012–2020	T.O.N.	3	n/a	Yes	ND–4.0	ND	1.4–3.0	2.2	OM
Sulfate	2016–2020	ppm	500	n/a	Yes	4.7–320	30	18–34	27	RL, IW
Total dissolved solids	2016–2020	ppm	1000	n/a	Yes	120–800	207	94–171	129	RL
Turbidity (groundwater)	2016–2020	NTU	5	n/a	Yes	ND–1.2	0.18	0.03–0.07	0.05	SO
Zinc	2017–2020	ppm	5	n/a	Yes	ND–0.11	ND	n/a	n/a	RL, IW

¹ The value was greater than the SMCL in one odor sample collected; however, this is in compliance as the average is less than the SMCL. The SMCL was set to protect you against unpleasant aesthetic effects, such as color, taste, odor, and the staining of plumbing fixtures and clothing when washed. Exceeding this SMCL does not pose a health risk.

2020 Water Quality

(Continued)

State Regulated Contaminants with Notification Levels

Contaminants	Year Tested	Unit	NL	PHG (MCLG)	In Compliance	Groundwater		KCWA		Source
						Range	Average	Range	Average	
Boron	2016–2018	ppm	1	n/a	Yes	ND–0.18	0.12	0.14	n/a	UR
Chlorate	2017	ug/L	800	n/a	Yes	ND	ND	0.07	n/a	UR
Chromium (hexavalent) ¹	2012–2018	ppb	n/a	0.02	n/a	ND–1.8	ND	n/a	n/a	UR
Perfluorooctanesulfonic acid (PFOS) ²	2020	ppt	6.5	n/a	Yes	ND–33	ND	n/a	n/a	UR
Vanadium	2013–2020	ppb	50	n/a	Yes	ND–17	6.4	n/a	n/a	UR

Unregulated Contaminant Monitoring Rule (UCMR)

Contaminants	Year Tested	Unit	MCL	PHG (MCLG)	In Compliance	Groundwater		KCWA		Source
						Range	Average	Range	Average	
Germanium	2020	ppb	n/a	n/a	n/a	ND–3.8	ND	n/a	n/a	UR
HAA5 (DBAA, DCAA, MBAA, MCAA, and TCAA)	2020	ppb	n/a	n/a	n/a	ND–2.6	ND	n/a	n/a	UR
HAA6Br (BCAA, BDCAA, DBAA, CDBAA, MBAA, and TBAA)	2020	ppb	n/a	n/a	n/a	ND–6.2	2.6	n/a	n/a	UR
HAA9 (BCAA, BDCAA, CDBAA, DBAA, DCAA, MBAA, MCAA, TBAA, and TCAA)	2020	ppb	n/a	n/a	n/a	ND–33	15	n/a	n/a	UR

¹ The previous MCL of 0.010 mg/L (10 ppb) for hexavalent chromium was withdrawn on September 11, 2017, and there is currently no MCL in effect.

² PFAS include both perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS). There is no MCL or SMCL for PFOS/PFOA; however, there are established NLs and RLs. The NL for PFOA is 5.1 ppt and for PFOS is 6.5 ppt, with RLs of 10 ppt and 40 ppt, respectively. NLs are non-regulatory, health-based advisory levels established for constituents that may be candidates for MCLs in the future. Studies indicate that long-term exposure to PFOS/PFOA over certain levels could have adverse health effects; in laboratory studies, PFOS exposure resulted in immune suppression and cancer, while PFOA exposure resulted in increased liver weight and cancer. Cal Water proactively tested all of our active sources for PFOS and PFOA. We continue to work closely with DDW and EPA to conduct extensive monitoring.

2020 Water Quality

(Continued)

Unregulated Compounds


Constituents	Year Tested	Unit	MCL	PHG (MCLG)	In Compliance	Groundwater		KCWA		Source
						Range	Average	Range	Average	
Alkalinity (total)	2016–2020	ppm	n/a	n/a	n/a	16–150	80	52–66	58	UR
Calcium	2016–2020	ppm	n/a	n/a	n/a	3.1–110	29	12–26	17	UR
Hardness (total)	2016–2020	ppm	n/a	n/a	n/a	7.8–150	78	41–71	53	UR
Potassium	2016–2020	ppm	n/a	n/a	n/a	ND–2.5	1.6	ND–1.8	1.3	UR
Magnesium	2016–2020	ppm	n/a	n/a	n/a	ND–7.1	2.1	1.5–2.9	2.3	UR
Sodium	2016–2020	ppm	n/a	n/a	n/a	17–140	33	17–30	21	UR
Perfluorobutanesulfonic acid (PFBS)	2020	ppt	n/a	n/a	n/a	ND–8.0	ND	n/a	n/a	UR
Perfluorhexanesulfonic acid (PFHxS)	2020	ppt	n/a	n/a	n/a	ND–33	ND	n/a	n/a	UR
Perfluorononanoic acid (PFNA)	2020	ppt	n/a	n/a	n/a	ND–8.0	ND	n/a	n/a	UR
pH ¹	2015–2020	STD U	n/a	n/a	n/a	6.4–11	7.8	7.3–7.5	7.4	PH

¹ In two samples in the City of Bakersfield water system, pH was 11. pH is a measure of how acidic or basic water is and is not a regulated constituent.

Thank you.

Thanks for taking the time to learn more about your water quality! Even more information awaits you at www.calwater.com.
Visit our web site to get information about your account, water-use history, water rates, and water system.

You will also find water-saving tips and news about water conservation programs and rebates available in your area.

- 
- > Conservation resources
 - > Lead in water
 - > Water treatment and disinfection
 - > Protecting the water supply



To: Mr. Jacob Glaze, Kimley-Horn and Associates
From: Shannon Mindeman, Rocks Biological Consulting
Date: March 3, 2022
Subject: Biological Survey Summary for the U-Haul Bakersfield Project, Bakersfield, California

This memo provides summary results of a general biological survey conducted by Rocks Biological Consulting (RBC) for the proposed U-Haul Bakersfield Project (project). The project site is located in the City of Bakersfield, within Kern County, California.

On February 21, 2022, RBC biologist Ian Hirschler conducted a field study that included a general biological survey, vegetation mapping, a reconnaissance-level wetland/non-wetland waters jurisdictional assessment, and general habitat assessments for special-status wildlife and plant species. This memo provides a summary of existing site conditions and primary biological constraints associated with the development of the project site. This memo includes initial findings only and does not represent a comprehensive review of all biological resources on site.

Existing Site Conditions Summary

- The project site occurs west of South H Street, east of California State Route 99, south of McKee Road, and north of Taft Highway.
- The project site was previously disturbed and is primarily composed of non-native grassland, with disturbed land around the perimeter. No native vegetation communities were observed within the project site. The project site is surrounded by developed and disturbed land.
- A preliminary assessment found that the project site likely does not support potentially jurisdictional aquatic resources per the U.S. Army Corps of Engineers (Corps), the Regional Water Quality Control Board (RWQCB), and/or the California Department of Fish & Wildlife (CDFW) regulations and guidance.
- One special-status plant species, Bakersfield small scale (*Atriplex tularensis*; California Rare Plant Rank 1A, State Endangered), has been reported within approximately one mile of the project site (CDFW 2022). This species was not observed during the general biological survey and does not have a high probability for occurrence based on the disturbed nature of the site.
- Three special-status wildlife species, San Joaquin kit fox (*Vulpes macrotis mutica*; Federally Endangered, State Threatened [ST]), California glossy snake (*Arizona*

elegans occidentalis; CDFW Species of Special Concern), and Swainson's hawk (*Buteo swainsoni*; ST), have been historically documented within one mile of the project site (CDFW 2022). The on-site non-native grassland is disturbed and isolated, therefore, these species are not anticipated to occur within the project site.

- The project site has general potential to support nesting birds. An inactive raptor nest was observed in an ornamental tree within the western portion of the project site. The project site also contains suitable nesting habitat for ground-nesting avian species.

Regulatory Considerations

- Compliance with California Fish and Game Code (CFG) section 3503 under which it is unlawful to "take, possess, or needlessly destroy" avian nests or eggs will be required. If clearing, grubbing, or grading is proposed during the avian breeding season (e.g., January 15 – August 31) or an active nest is noted, a pre-construction nest survey would be required. If active nests are present, construction would be delayed in the nest area plus an appropriate buffer (determined case-by-case) until the end of the breeding season or until the nest is no longer active.

Recommendations

Based on the information outlined above, we recommend the following measures in order to avoid and minimize potential impacts on biological resources:

- To comply with state and federal nesting bird regulations, vegetation removal and/or ground-disturbing activities should occur outside the avian breeding season (September 1 to January 14). If vegetation removal or ground-disturbing activities must occur during the nesting season, then a qualified biologist should conduct a nesting bird survey prior to any disturbance of the proposed project site.
- A biological technical report should be prepared in accordance with the California Environmental Quality Act (CEQA) and other applicable local, state, and federal regulations.

References

California Department of Fish and Wildlife (CDFW). 2022. California Department of Fish and Wildlife California Natural Diversity Database – Electronic Format.



BAKERSFIELD U-HAUL FACILITY PROJECT BIOLOGICAL RESOURCES STUDY

Kern County, California

April 14, 2022

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Figure 2. Biological Resources

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Figure 4. Proposed Project Impacts

APPENDICES

Appendix A. Bakersfield U-Haul Facility Project Survey Area Site Photographs

Appendix B. Plant and Wildlife Species Observed within the Bakersfield U-Haul Facility Project Survey Area

1 INTRODUCTION

The City of Bakersfield (City) proposes to construct the Bakersfield U-Haul Facility Project (project) areas within the City of Bakersfield, Kern County, California (Figure 1). The project site is located at 9407 South H Street, west of South H Street, east of California State Route 99, south of McKee Road, and north of Taft Highway (Figure 1). The project site is located within one parcel, designated as Assessor's Parcel Number (APN) 514-060-05. The project site is located within Township 30 South, Range 27 East, Section 36 within the Gosford 7.5-minute quadrangle, as mapped by the United States Geological Survey (USGS 2022b).

The project site encompasses a flat 11.3-acre area that primarily supports non-native grassland vegetation (Figure 1). Surrounding land uses include disturbed land, residential development, commercial development (i.e., a medical clinic and senior center), parking facilities, and roadways, including California State Route 99.

This Biological Resource Study includes a description of the existing biological resources within and adjacent to the proposed project footprint; details the methods used to assess existing conditions and potential impacts on sensitive habitats and species; and presents potential avoidance, minimization, and mitigation measures to reduce potential project impacts.

1.1 SITE BACKGROUND AND PLANNING CONTEXT

The project site occurs within the southern city limits of Bakersfield, Kern County, California. Historically, the property has been agricultural or fallow agricultural land since around 1936 and aeriels show agricultural operations continuing until around 2014. Currently, the project site is vacant with no on-site structures or infrastructure improvements.

The project site occurs within the Metropolitan Bakersfield General Plan (General Plan; City 2002). The proposed project requires a General Plan land use amendment and a zone change. The existing General Plan Land Use Element land use designation for the project site is Suburban Residential. The General Plan notes that this designation assumes four or fewer dwelling units per acre. The proposed General Plan land use designation is Light Industrial. This designation permits industrial uses at up to six stories with a floor area ratio (FAR) of 1. The existing zoning designation on the site is Agriculture and the proposed designation is M-1, Light Manufacturing. The maximum building height in the M-1 zone is 6 stories not exceeding 75 feet.

The project also occurs within the Metropolitan Bakersfield Habitat Conservation Plan (MBHCP) area (City 1994). The primary goals of the MBHCP are to acquire, preserve, and enhance native habitats which support endangered and sensitive species, while allowing urban development to proceed as set forth in the General Plan. The City is a participating agency that receives take coverage under the MBHCP and project mitigation will be pursued in a manner consistent with the MBHCP, further off-setting potential minor impacts on special-status species that could occur with project implementation.

1.2 PROJECT DESCRIPTION

The proposed project would include three at-grade buildings with associated surface parking areas for employees and customers, as well as for-rent vehicles and large vehicle (e.g., recreational vehicle) storage.

Building A. Building A would be located in the northwest portion of the project site. The four-story, approximately 133,640 gross square feet (gsf) building would be an indoor, climate controlled self-storage facility with a rental office/showroom on the southwest corner of the building. A manager's living unit would also be located within the building. All storage units would be accessed from within the building.

Building B. Building B would be located in the northeast portion of the project site near South H Street. The one-story, approximately 32,421 gsf building would be a "U-Box" container facility. U-Box is a portable moving and storage container that can be delivered to an off-site location for temporary storage, returned to the U-Haul facility for storage, or shipped to a designated location. No on-site access is provided to customers for stored U-Box containers. A truck loading ramp and dock door would be located on the east side of the building, near the southernmost driveway.

Building C. Building C would be located in the southern portion of the project site. The one-story, 32,421 gsf structure would be a mechanical shop building for the inspection and repair of rental equipment and vehicles. The building would include an employee lounge and lockers. The second story would include three office spaces.

Vehicle Storage. Vehicle storage space would be provided for recreational vehicles, trailers, and passenger vehicles. The uncovered parking spaces are proposed along the western project boundary. Approximately 20 spaces would be provided. This area could also accommodate rental vehicles and equipment.

Vehicle Rental: Shunting Areas. Moving truck and trailer rentals would be parked on the project site. Two shunting areas are proposed on the project site. One area would be located between Building A and Building B. The other shunting area would be located in the central portion of the project north of Building C. Shunting areas are staging areas for pick up and drop off on rental vehicles and equipment. Depending on the size of the vehicles and equipment, which can range in length from approximately 10 to 30 feet, these areas can accommodate approximately 30 to 50 vehicles.

1.2.1 CONSTRUCTION AND GRADING

The applicant anticipates that construction would take approximately 8 to 12 months, in the following sequence:

- Site preparation.
- Grading – 100 cubic yards of cut material and 600 cubic yards of fill material, with 500 cubic yards of import. The project would install all on-site infrastructure (i.e., storm drain, water, wastewater, dry utilities, and street improvements) during grading.

- Building construction.
- Paving and landscaping.

1.2.2 DISCRETIONARY AND MINISTERIAL APPROVALS

The following discretionary and ministerial actions and/or approvals are required for the proposed project:

- Adoption of a CEQA Initial Study/Mitigated Negative Declaration
- General Plan Amendment
- Zone Change
- Site Plan Review

1.3 REGULATORY FRAMEWORK

Federal, state, and local agencies have established several regulations to protect and conserve biological resources. The descriptions below provide a brief overview of agency regulations that may be applicable to the project. The regulating agencies make the final determination as to what types of permits are required.

1.3.1 FEDERAL REGULATIONS

Federal Endangered Species Act

The federal Endangered Species Act of 1973 (ESA; 16 U.S.C. § 1531 et seq.), as amended, provides for listing of endangered and threatened species of plants and animals and designation of critical habitat for listed species. The ESA regulates the “take” of any endangered fish or wildlife species, per Section 9. As development is proposed, the responsible agency or individual landowner is required to consult with the United States Fish and Wildlife Service (USFWS) to assess potential impacts on listed species (including plants) or their critical habitat, pursuant to Sections 7 and 10 of the ESA. USFWS is required to make a determination as to the extent of impact a project would have on a particular species. If it is determined that potential impacts on a species would likely occur, measures to avoid or reduce such impacts must be identified. USFWS may issue an incidental take statement, following consultation and the issuance of a Biological Opinion. This allows for take of the species that is incidental to another authorized activity, provided that the action will not adversely affect the existence of the species. Section 10 of the ESA provides for issuance of incidental take permits to non-federal parties with the development of a habitat conservation plan (HCP); Section 7 provides for permitting of federal projects.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA; 16 U.S.C. § 703 et seq.) is a federal statute that implements treaties with several countries on the conservation and protection of migratory birds. The number of bird species covered by the MBTA is extensive and listed at 50 Code of Federal Regulations (CFR) 10.13. The USFWS enforces the MBTA, which prohibits “by any means or in any manner, to

pursue, hunt, take, capture, [or] kill” any migratory bird, or attempt such actions, except as permitted by regulation.

Clean Water Act

Pursuant to Section 404 of the Clean Water Act (CWA; 33 U.S. Code § 1251 et seq.), the Corps is authorized to regulate any activity that would result in the discharge of dredged or fill material into waters of the U.S. (including wetlands), which include those waters listed in 33 CFR 328.3 (51 Federal Register [FR] 41217, November 13, 1983; 53 FR 20764, June 6, 1988) and further defined by the 2001 *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers* (SWANCC; 531 U.S. 159) decision and the 2006 *Rapanos v. United States* (547 U.S. 715) decision. The Corps, with oversight from the U.S. Environmental Protection Agency (USEPA), has the principal authority to issue CWA Section 404 permits. The Corps would require a Standard Individual Permit (SIP) for more than minimal impacts on waters of the U.S. as determined by the Corps. Projects with minimal individual and cumulative adverse effects on the environment may meet the conditions of an existing Nationwide Permit (NWP).

A Water Quality Certification or waiver pursuant to Section 401 of the CWA (33 U.S. Code § 1341) is required for all Section 404 permitted actions. The Regional Water Quality Control Board (RWQCB), a division of the State Water Resources Control Board (SWRCB), provides oversight of the Section 401 certification process in California. The RWQCB must certify "that there is a reasonable assurance that the activity will be conducted in a manner which will not violate water quality standards" (40 CFR 121.2(a)(3)). Water Quality Certifications must be based on the finding that a proposed discharge will comply with applicable water quality standards.

The National Pollutant Discharge Elimination System (NPDES) is the permitting program for discharge of pollutants into surface waters of the U.S. under Section 402 of the CWA (33 U.S. Code § 1342).

1.3.2 STATE REGULATIONS

California Environmental Quality Act

The California Environmental Quality Act (CEQA; California Public Resources Code § 21000 et seq.) was established in 1970 as California's counterpart to the National Environmental Policy Act (NEPA). CEQA requires state and local agencies to identify significant environmental impacts of their actions and to avoid or mitigate those impacts, where feasible.

CEQA applies to certain activities of state and local public agencies. A public agency must comply with CEQA when it undertakes an activity defined by CEQA as a "project." A project is an activity undertaken by a public agency or a private activity, which must receive some discretionary approval (meaning that the agency has the authority to deny the requested permit or approval) from a government agency that may cause either a direct physical change in the environment or a reasonably foreseeable indirect change in the environment.

California Endangered Species Act and Natural Community Conservation Planning Act

The California Endangered Species Act of 1984 (CESA; California Fish and Game Code [CFGF] § 2050 et seq.), in combination with the California Native Plant Protection Act of 1977 (CFGF § 1900 et seq.), regulates the listing and take of plant and animal species designated as endangered, threatened, or rare within the state. California also lists species of special concern based on limited distribution; declining populations; diminishing habitat; or unusual scientific, recreational, or educational value. The California Department of Fish and Wildlife (CDFW) is responsible for assessing development projects for their potential to impact listed species and their habitats. State-listed special-status species are addressed through the issuance of a 2081 permit (Memorandum of Understanding).

In 1991, the California Natural Community Conservation Planning (NCCP) Act (CFGF § 2800 et seq.) was approved and the NCCP Coastal Sage Scrub program was initiated in Southern California. The NCCP program was established “to provide for regional protection and perpetuation of natural wildlife diversity while allowing compatible land use and appropriate development and growth.” The NCCP Act encourages preparation of plans that address habitat conservation and management on an ecosystem basis rather than one species or habitat at a time.

California Fish and Game Code Sections 1600-1602

Pursuant to Division 2, Chapter 6, Section 1602 of the CFGF, CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel or bank of any river, stream or lake that supports fish or wildlife. A Notification of Lake or Streambed Alteration must be submitted to CDFW for “any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake” (CFGF § 1602). CDFW has jurisdiction over riparian habitats associated with watercourses and wetland habitats supported by a river, lake, or stream. Jurisdictional waters are delineated by the outer edge of riparian vegetation (i.e., drip line) or at the top of the bank of streams or lakes, whichever is wider. CDFW jurisdiction does not include tidal areas or isolated resources (e.g., riparian or wetland areas not supported by a river, lake, or stream). CDFW reviews the proposed actions and, if necessary, submits (to the applicant) a proposal that includes measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by CDFW and the applicant is the Lake or Streambed Alteration Agreement.

California Fish and Game Code Sections 3503, 3511, 3513, 3801, 4700, 5050, and 5515

CDFW protects and manages fish, wildlife, and native plant resources within California. The California Fish and Game Commission and/or CDFW are responsible for issuing permits for the take or possession of protected species. The following sections of the CFGF address protected species: Section 3511 (birds), Section 4700 (mammals), Section 5050 (reptiles and amphibians), and Section 5515 (fish). In addition, the protection of birds of prey is provided for in Sections 3503, 3513, and 3800 of the CFGF.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (California Water Code § 13000 et seq.) provides for statewide coordination of water quality regulations. The SWRCB was established as the statewide authority and nine separate RWQCBs were developed to oversee water quality on a day-to-day basis. The RWQCBs have primary responsibility for protecting water quality in California. As discussed above, the RWQCBs regulate discharges to surface waters under the CWA. In addition, the RWQCBs are responsible for administering the Porter-Cologne Water Quality Control Act.

Pursuant to the Porter-Cologne Water Quality Control Act, the state is given authority to regulate waters of the state, which are defined as any surface water or groundwater, including saline waters. As such, any person proposing to discharge waste into a water body that could affect its water quality must first file a Report of Waste Discharge if a Section 404 permit is not required for the activity. “Waste” is partially defined as any waste substance associated with human habitation, including fill material discharged into water bodies.

1.3.3 REGIONAL AND LOCAL PLANS

Metropolitan Bakersfield General Plan

The project occurs within the Metropolitan Bakersfield General Plan area (City 2002). The General Plan serves as a blueprint for future growth and development in Metropolitan Bakersfield.

The General Plan assigns land use designations to land within the planning area to ensure land use diversity and balanced development. These designations identify land use types and permitted types of development in particular areas. The project site is currently designated as Suburban Residential.

The General Plan Conservation Element concerning biological resources (Chapter V.A; City 2002) includes the following goals to conserve biological resources within the Metropolitan Bakersfield General Plan area: 1) Conserve and enhance Bakersfield’s biological resources in a manner which facilitates orderly development and reflects the sensitivities and constraints of these resources. 2) To conserve and enhance habitat areas for designated “sensitive” animal and plant species.

These goals are reached through policies and implementation measures applicable to the project site, as follows:

- Policy, Conservation/Biological Resources-1: Direct development away from “sensitive biological resource” areas, unless effective mitigation measures can be implemented.
- Implementation, Conservation/Biological Resources-1: When considering discretionary development proposals, consult available biological resource data covering the area. Determine the potential impacts and necessary mitigation measures for identified biological resources, as required in the CEQA. Regularly consult with responsible resource agencies.
- Implementation, Conservation/Biological Resources-3: Preserve habitat and avoid “take” of protected species as required in the MBHCP.

- In order to achieve the goals of the General Plan regarding the conservation of biological resources, the policies outlined in Chapter V.A shall be implemented by the City and included in the project planning process.

Kern County General Plan

The Kern County General Plan excludes the Metropolitan Bakersfield area as a more specific general plan for that area has been developed (Kern County Planning Department 2009)

Metropolitan Bakersfield Habitat Conservation Plan (MBHCP)

The project occurs within an area covered by the MBHCP (City 1994), which was implemented under the terms of ESA Section 10(a) permit issued by the USFWS and a 2081 permit issued by the CDFW (previously California Department of Fish and Game, or CDFG). The MBHCP was developed prior to the passage of Natural Community Conservation Act in 2002, but functions similarly to regional Natural Community Conservation (NCCP) plans.

The MBHCP is a regional planning document that aims to acquire, preserve, and enhance native habitats which support endangered and sensitive species, while allowing urban development to proceed as set forth in the General Plan. Projects are covered under the MBHCP if the lead agency is signatory to the MBHCP.

The City is the lead agency for the project and is a signatory to the MBHCP. As such, the project is subject to MBHCP regulations and it receives take authority granted under the MBHCP for the following species: San Joaquin kit fox (*Vulpes macrotis mutica*), blunt-nosed leopard lizard (*Gambelia silus*), Tipton kangaroo rat (*Dipodomys nitratooides nitratooides*), giant kangaroo rat (*Dipodomys ingens*), San Joaquin (Nelson's) antelope squirrel (*Ammospermophilus nelsoni*), short-nosed kangaroo rat (*Dipodomys nitratooides brevinasus*), San Joaquin pocket mouse (*Perognathus inornatus*), Bakersfield cactus (*Opuntia treleasei*), California jewelflower (*Caulanthus californicus*), Tulare pseudobahia (*Pseudobahia peirsonii*), striped adobe lily (*Fritillaria striata*), Bakersfield saltbush/smallscale (*Atriplex tularensis*), San Joaquin wooly-threads (*Monolopia congdonii*), Hoover's wooly-star (*Eriastrum hooveri*), Kern mallow (*Eremalche kernensis*), slough thistle (*Cirsium crassicaule*), and recurved larkspur (*Delphinium recurvatum*).

The MBHCP program is funded through the collection of onetime mitigation fees paid on all new construction projects occurring within the General Plan area. The fees are assessed per gross acre and must be paid to the City or County of Kern at the time of grading permit approval or issuance of building permits, whichever comes first. Currently, the mitigation fee is \$2,145.00 per gross acre of land developed, regardless of habitat type.

The MBHCP addresses two categories of land, including 'natural land' with original soil and topography intact, and 'open land', which includes natural land as well as agriculture and all other non-urban lands. Development of either land type requires mitigation fee payment as described above, but the two are distinguished within the MBHCP for the purposes of environmental assessment and permit monitoring.

In 2019, permitting through the MBHCP was revised slightly based on issuance of a new Incidental Take Permit (ITP) from the CDFW. The new ITP covers San Joaquin kit fox, Tipton kangaroo rat, San Joaquin antelope squirrel, and Bakersfield cactus. In addition to the mitigation fee described above, the changes in the ITP require the following to be completed prior to issuance of a grading or building permit (Kern County Planning and Natural Resources Department 2022):

- A Biological Clearance Survey is required on all projects no more than 30 days prior to grading by a CDFW-approved Qualified Biologist.
- All surveys must be delivered to USFWS, CDFW, and the County of Kern.
- If survey results include presence of Covered Species (e.g., San Joaquin kit fox, Tipton kangaroo rat, San Joaquin antelope squirrel, or Bakersfield cactus), then the ITP requires the submittal of additional information to adhere to the conditions of the ITP and minimize take of a Covered Species.

Importantly, the current MBHCP expires on June 1, 2023. If a project may result in take of covered species, fees must be paid no later than January 1, 2023, and all covered activities must be completed by June 1, 2023.

City of Bakersfield Municipal Code Section 17.61.050: Tree Preservation and Protection

The City of Bakersfield Municipal Code Section 17.61.050 provides regulations regarding tree removal and replacement activities (City 2018). According to this tree preservation and protection code, trees voluntarily removed from a project site shall be replaced at the average size of what existed on site not exceeding a 48-inch box container size. This municipal code is applicable except when a tree is removed to protect public safety, property damage, or liability, or by acts of nature, by the unlawful removal by persons other than the property owner, or in complying with other state or federal laws. If replacement is required, it is to be completed within 120 days of removal. The replacement planting must conform to the original intent of the landscape design and adhere to the state's Model Water Efficient Landscaping Ordinance as adopted in California Code of Regulations, Title 23, Chapter 2.7 as adopted by the state.

2 METHODS

Rocks Biological Consulting (RBC) biologists conducted vegetation mapping, habitat assessments for special-status species, and a general biological survey. Additionally, RBC conducted a reconnaissance-level aquatic resources assessment to identify areas that may be considered jurisdictional under the Corps pursuant to Section 404 of the CWA, under the RWQCB pursuant to Section 401 of the CWA and the Porter-Cologne Water Quality Control Act, and under the CDFW pursuant to Section 1602 of the CFGC.

The general biological survey, vegetation mapping, habitat assessments, and reconnaissance-level aquatic resources assessment were conducted within the 11.3-acre project site and a surrounding 100-foot buffer (survey area). Note that survey buffer areas are included in this analysis in order to assess the potential for special-status species or resources in areas immediately adjacent the project site that could be impacted by the project analyzed herein. Such information should not be considered comprehensive for all biological resources or aquatic resources that may occur in buffer areas, and buffer mapping is intended only for the project analysis outlined herein; such information is not intended for impact analysis of any future projects within or adjacent to project buffer areas.

2.1 DATABASE SEARCH

Prior to conducting field surveys, existing information regarding biological and aquatic resources present or potentially present within the project area was obtained through a review of pertinent literature and databases, including, but not limited to:

- CDFW California Natural Diversity Database (CNDDDB; CDFW 2022a)
- California Native Plant Society (CNPS) Electronic Inventory (CNPS 2022)
- USFWS Special-Status Species Database (USFWS 2022d)
- USFWS Information for Planning and Consultation (IPaC) Database (USFWS 2022c)
- USFWS National Wetlands Inventory (NWI) Database (USFWS 2022b)
- Natural Resources Conservation Service (NRCS) Soils Survey Database (NRCS 2022)
- USGS National Hydrography Dataset (NHD) Database (USGS 2022)
- Metropolitan Bakersfield Habitat Conservation Plan (MBHCP; City 1994)

The CNDDDB (CDFW 2022a) and USFWS (USFWS 2022d) special-status species occurrences queries were conducted for the project site plus a three-mile radius. The CNPS Electronic Inventory (CNPS 2022) search was conducted for the Gosford USGS 7.5' quadrangle containing the project site with the project site's elevation range of 348 to 350 feet above mean sea level (amsl). The potential for special-status species to occur within the survey area was refined by considering the habitat affinities of each species, field habitat assessments, vegetation mapping, and knowledge of local biological resources.

The potential for occurrence tables created for the project (see Section 3) includes all federally and state-listed species, federally and state candidate species for listing, and other state-designated special-status species that have been reported within three miles of the project site (CNDDDB and USFWS special-status species databases), federally listed species identified as having potential to occur based on their known or expected ranges (IPaC), as well as all California Rare Plant Rank (CRPR) listed species that occur within the quadrangle search (CNPS 2022).

2.2 VEGETATION MAPPING AND GENERAL BIOLOGICAL SURVEYS

On February 21, 2022, RBC biologists conducted vegetation mapping in the field to provide a baseline of the biological resources that occur or have the potential to occur within the survey area. RBC conducted vegetation mapping by walking throughout the project site and mapping vegetation communities on aerial photographs at a 1:2400 scale (1 inch = 200 feet). Vegetation was identified in buffer areas via binoculars from the project site when direct access not feasible during the general biological survey.

The extent of each habitat type (delineated as a habitat polygon on the vegetation maps) was calculated using the Geographic Information System (GIS) program ArcGIS. Habitats were classified based on the dominant and characteristic plant species utilizing vegetation community classifications outlined in Holland's *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986); best professional judgement was used to determine the most appropriate vegetation community names for the project, which occasionally requires finer delineation of habitats than outlined Holland. The vegetation communities were also crosswalked with *The Manual of California Vegetation, 2nd Edition* (MCV2; Sawyer et al. 2009), and the equivalent classification is provided in Section 3.

RBC biologists conducted a general biological survey for plants and wildlife concurrently with vegetation mapping on February 21, 2022. Photos taken during the general biological survey are provided in Appendix A. Plant species encountered during the field survey were identified and recorded in field notebooks. Plant species that could not be identified were brought to the laboratory for identification using the dichotomous keys in the *Jepson Manual* (Baldwin et al. 2012). A compiled list of the vascular plant species observed in the survey area is presented in Appendix B.

Wildlife species were documented during the field survey by sight, calls, tracks, scat, or other signs, and were recorded in field notebooks. Binoculars (8X42 magnification) were used to aid in the identification of wildlife. A compiled list of wildlife species observed in the survey area is presented in Appendix B; scientific and common names of wildlife follow CDFW Special Animals List (2022b).

The location of observed biological resources designated as special-status by the USFWS, CDFW, and/or CNPS, were recorded in field notebooks, on aerial maps, and/or through the use of handheld Global Positioning System (GPS) devices. The project site and buffer were also surveyed for habitat with the potential to support special-status plant and wildlife species. Expected wildlife

use of the project site was assessed based on known habitat preferences of local species and knowledge of their biogeographic distribution in the region.

2.3 INITIAL AQUATIC RESOURCES ASSESSMENT

RBC conducted a reconnaissance-level aquatic resources assessment within the survey area concurrent with the vegetation mapping and general biological survey on February 21, 2022, to identify any areas that may be considered jurisdictional under the Corps pursuant to Section 404 of the CWA, the RWQCB pursuant to Section 401 of the CWA and the Porter-Cologne Water Quality Control Act, and the CDFW pursuant to Section 1602 of the CFGC.

Prior to the on-site assessment, RBC reviewed Google Earth Pro and NetrOnline aerial imagery for evidence of current and historic presence or absence of drainage features and/or ponding in the survey area (Google Earth Pro 2022; NetrOnline 2022). During the field assessment, staff evaluated areas with depressions, drainage patterns, wetland/hydrophytic vegetation, and/or mapped hydric soils per the NRCS Web Soil Survey (NRCS 2022) within the survey area for potential jurisdictional status, with focus on the presence of defined channels and/or evidence of wetland hydrology. No formal jurisdictional delineation was conducted as part of this effort.

3 RESULTS

This section discusses the results of the literature review, vegetation mapping, general biological survey, and the reconnaissance-level aquatic resources assessment. Special-status biological resources are also discussed in this section and are defined as follows: 1) Species that have been given special recognition by federal, state, or local conservation agencies and organizations due to limited, declining, or threatened/endangered population sizes; 2) Species and their associated habitat types recognized by local and regional resource agencies as sensitive; 3) Habitat areas or vegetation communities that are unique, are of relatively limited distribution, or are of particular value to wildlife; 4) Wildlife corridors and habitat linkages; and/or 5) Biological resources that may or may not be considered sensitive, but are regulated under local, state, and/or federal laws.

3.1 PHYSICAL SETTING

The project site is a relatively flat parcel that supports primarily non-native grassland habitat, with smaller areas of developed land and disturbed habitat along the border of the site. Surrounding land uses include roads, disturbed land, residential development, commercial development (i.e., a medical clinic and senior center), and parking facilities. Vegetation mapping was performed based on conditions observed during the field visit on February 21, 2022. On-site elevations range from approximately 348 to 350 feet amsl.

3.2 VEGETATION COMMUNITIES AND LAND USES

The survey area, defined here as the project site plus the surrounding 100-foot buffer, supports three vegetation communities and other land covers that are generally defined here in accordance with *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986).

Vegetation within the survey area is predominantly comprised of non-native grassland, as shown on Figure 2. Smaller areas of disturbed habitat and developed land (i.e., roads and parking facilities) also occur within the survey area. No native vegetation communities are present within the survey area. Vegetation communities, as classified by Holland (1986), were also crosswalked with MCV2 (Sawyer et al. 2009); Table 1 provides a summary of vegetation acreages for the survey area as well as the equivalent vegetation community/land cover type in the MCV2 classification system.

Table 1. Summary of Vegetation/Land Covers within the Bakersfield U-Haul Facility Project Survey Area

Vegetation	MCV2 Classification System ¹	Global/State Rank	Bakersfield U-Haul Facility Survey Area (acres)
Non-native Grassland	<i>Bromus ruben</i> – <i>Schismus (arabicus, barbatus)</i> Herbaceous Semi-Natural Alliance	No Rank	11.7
Developed	Developed/Disturbed	No Rank	1.2
Disturbed Habitat	Developed/Disturbed	No Rank	1.7
Total			14.6

¹ Vegetation communities crosswalked to *The Manual of California Vegetation* (Sawyer et al. 2009)

Natural communities with ranks of S1 through S3 are considered sensitive natural communities by CDFW to be addressed in the environmental review processes of CEQA (CDFW 2021). None of the three vegetation communities and land covers observed within the survey area are considered sensitive vegetation communities by CDFW.

Non-native Grassland (Bromus rubens – Schismus (arabicus, barbatus) Herbaceous Semi-Natural Alliance)

The non-native grassland within the survey area (11.7 acres) is dominated by non-native grass species such as barley (*Hordeum* sp.), ripgut grass (*Bromus diandrus*), and red brome (*B. rubens*), amongst lower numbers of cheeseweed (*Malva parviflora*), Australian tumbleweed (*Salsola australis*), and red-stem filaree (*Erodium cicutarium*). Non-native grassland occurs throughout a majority of the project site (Figure 2). Heavy agricultural disturbance to the site and nearby seed sources of non-native grass species that thrive in fine textured soils likely resulted in the establishment of this non-native grassland following the discontinuance of farming activities.

CDFW does not consider any of the semi-natural stands, including non-native grasslands, as special-status biological resources under CEQA (CDFW 2022b).

Developed (Developed/Disturbed)

Developed areas within the survey area total 1.2 acres. Developed land supports little to no native vegetation and is comprised of human-made structures (buildings, pavement, etc.). Areas mapped as developed occur along the eastern and western project site buffer in the form of paved roads as well as within the northeast portion of the survey area in the form of a parking lot (Figure 2).

Developed land is not recognized by CDFW (2022b); therefore, it is not considered special-status under CEQA.

Disturbed (Developed/Disturbed)

Disturbed land supports little to no native vegetation and is typified by human-made disturbances (vegetation clearing, mowing, vehicle disturbance, etc.). Disturbed lands are present along the northern, eastern, and western edges of the survey area (1.7 acres) and consist of bare ground

with sparse non-native vegetation such as cheeseweed, Australian tumbleweed, and red-stem filaree.

Disturbed land is not recognized by CDFW (2022b); therefore, it is not considered special-status under CEQA.

3.3 POTENTIAL FEDERAL AND STATE JURISDICTIONAL AQUATIC RESOURCES

Based on the reconnaissance-level aquatic resources assessment, the project site does not support aquatic resources potentially jurisdictional by the Corps, RWQCB, or CDFW (Figure 2). Additionally, Section 10 navigable waters of the U.S. do not occur within the project site.

No USGS NHD blue line streams or USFWS NWI aquatic features were identified within the survey area during the project desktop review. Prior to the survey, RBC also performed an initial review of aerial imagery and noted a signature crossing the project site from the northwest corner towards the southeast corner at various periods of time between 1952 (i.e., the earliest aerial image available on NetrOnline) and 2018 (NetrOnline 2022; Google Earth Pro 2022). However, RBC did not observe evidence of flows or drainage patterns within this area during the initial assessment (e.g., no soil moisture or saturation, no hydrophytic vegetation, no OHWM indicators or swale/drainage patterns, vegetation uniform with the surrounding upland).

As shown on Figure 2, although no potentially jurisdictional aquatic resources occur within the project site, two aquatic resources (a ditch and slight depressional area) that are potentially jurisdictional by the Corps, RWQCB, and CDFW occur within the project buffer but outside of the project site.

Should the project limits change and encroach upon the aquatic resources that occur within the buffer, a formal, project-specific aquatic resources delineation and reporting per Corps' standards and guidelines, and further coordination with the Corps, RWQCB, and CDFW would be required to determine the jurisdictional status of these aquatic resources.

3.4 PLANTS AND WILDLIFE

The survey area supports a very low diversity of vegetation communities and plant species. A total of nine plant species, of which only one is a native species, were observed during project biological surveys (Appendix B). A total of 10 bird species were also observed during the field survey (Appendix B). Twilight/nighttime surveys were not conducted, therefore crepuscular and nocturnal animals are likely under-represented in the project species list; however, habitat assessments were performed for all special-status species to ensure that any potentially-present rare species are adequately addressed herein.

For the purposes of this report, species are considered to have special-status if they meet one or more of the following criteria:

- Listed or considered for listing or proposed for listing under the ESA or CESA (CDFW 2022c; USFWS 2022c)

- CDFW Species of Special Concern (CDFW 2022b)
- CDFW Fully Protected Species (CDFW 2022b)
- CDFW Watch List Species (CDFW 2022b)
- Listed as having a California Rare Plant Rank (CRPR; formerly CNPS List, CNPS 2022)

3.4.1 SPECIAL-STATUS PLANT SPECIES AND CRITICAL HABITATS

As mentioned above and clarified in this section, special-status plant species include those that are: 1) Listed or proposed for listing by federal or state agencies as threatened or endangered; 2) CRPR List 1 through 4 species (CNPS 2022); or 3) Considered rare, endangered, or threatened by the CDFW (CDFW 2022c) or other local conservation organizations or specialists.

In the state of California, CNPS is a statewide resource conservation organization that has developed an inventory of California's sensitive plant species. The CRPR system is recognized by the CDFW and essentially serves as an early warning list of potential candidate species for threatened or endangered status. The CRPR system is categorized as outlined in Table 2.

Table 2. California Rare Plant Rank (CRPR) Definitions

California Rare Plant Rank (CRPR)	1A	Presumed extirpated in California and rare or extinct elsewhere
	1B	Rare, threatened, or endangered in California and elsewhere
	2A	Presumed extirpated in California but more common elsewhere
	2B	Rare, threatened, or endangered in California but more common elsewhere
	3	Plants for which more information needed
	4	Plants of limited distribution
CRPR Threat Ranks	0.1	Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
	0.2	Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
	0.3	Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

No special-status plant species were observed during general biological surveys in 2022. Special-status plants and their potential to occur within the survey area are assessed in Table 3. Please note that species with low potential to occur or not expected to occur are not addressed further in this report; because these species have low or no potential for occurrence, no impacts are anticipated on these species.

Table 3. Special-Status Plant Species with Potential to Occur Within the Bakersfield U-Haul Facility Project Survey Area

Species	Status	Habitat Description	Potential to Occur
Bakersfield Cactus (<i>Opuntia treleasei</i>)	FE, SE, CRPR 1B.1	Perennial stem. Blooms April-May. Chenopod scrub, cismontane woodland, and valley and foothill grassland. 330-4,755 feet.	Low. Grassland habitat on site is composed entirely of non-native species and soils have been historically disturbed by agriculture. Other suitable habitat types do not occur on site.
Bakersfield smallscale (<i>Atriplex tularensis</i>)	SE, CRPR 1A	Annual herb. Blooms June-October. Chenopod scrub. Elevation 295-655 feet.	None. Presumed extinct (Calflora Database 2022); historically known from one population on land that is now privately owned. No suitable habitat occurs on site.
California satintail (<i>Imperata brevifolia</i>)	CRPR 2B.1	Perennial rhizomatous herb. Blooms September-May. Chaparral, coastal scrub, meadows and seeps, Mojavean desert scrub, and riparian scrub. Elevation 0-3,986 feet.	None. No suitable habitat occurs on site.
Hispid salty bird's-beak (<i>Chloropyron molle</i> ssp. <i>hispidum</i>)	CRPR 1B.1	Annual herb (hemiparasitic). Blooms June-September. Meadows and seeps, playas, and valley and foothill grassland. Elevation 5-510 feet.	Low. Grassland habitat on site is composed entirely of non-native species and soils have been historically disturbed by agriculture. Other suitable habitat types do not occur on site.
Horn's milk-vetch (<i>Astragalus hornii</i> var. <i>hornii</i>)	CRPR 1B.1	Annual herb. Blooms May-October. Meadows and seeps, and playas. Elevation 195-2,790 feet.	None. No suitable habitat occurs on site.
Recurved larkspur (<i>Delphinium recurvatum</i>)	CRPR 1B.2	Perennial herb. Blooms March-June. Chenopod scrub, cismontane woodland, and valley and foothill grassland and alkaline microhabitat. Elevation 10-2,590 feet.	Low. Grassland habitat on site is composed entirely of non-native species and soils have been historically disturbed by agriculture. Other suitable habitat types do not occur on site.

Species	Status	Habitat Description	Potential to Occur
San Joaquin woollythreads (<i>Monolopia congdonii</i>)	FE, CRPR 1B.2	Annual herb. Blooms February-May. Chenopod scrub and valley and foothill grasslands (sandy). 195-2,625 feet.	Low. Grassland habitat on site is composed entirely of non-native species and soils have been historically disturbed by agriculture. Other suitable habitat types do not occur on site.
CRPR: California Rare Plant Rank FE: Federally Endangered SE: State Endangered			

3.4.1.1 Threatened and Endangered Plant Species

No federally or state-listed as threatened or endangered plant species were observed during the general field survey, and none have a moderate or high potential to occur based on the disturbed nature of the site and lack of suitable habitats (Table 3). The project site was converted to agricultural land approximately 80 to 90 years ago; since which heavy human disturbance (tilling, plowing, planting, etc.) has degraded the natural soil conditions and plant communities on site. These disturbances preclude inhabitation of most native species, especially threatened and endangered species that tend to be more vulnerable to displacement due to habitat conversion.

3.4.1.2 Non-listed Special-Status Plant Species

No CRPR plant species were observed during the general biological surveys, and none have a moderate or high potential to occur on site based on the disturbed nature of the site and lack of suitable habitats (Table 3). The project site was converted to agricultural land approximately 80 to 90 years ago; since which heavy human disturbance (tilling, plowing, planting, etc.) has degraded the natural soil conditions and plant communities on site, precluding inhabitation of most native species.

3.4.1.3 Critical Habitat

The ESA defines critical habitat as a specific geographic area, or areas, that contains features essential for the survival and recovery of endangered and threatened species. USFWS designates critical habitat for endangered and threatened species and may include sites for germination, seed dispersal, cover, and overall population growth. Critical habitat may also include areas that are not currently occupied by the species, but that will be needed for its recovery. Special management of critical habitat, including measures for water quality and quantity, nutritional and mineral availability, pollinators, sunlight, and specific soil types, is required to ensure the long-term survival and recovery of the identified species.

No USFWS-designated critical habitat or proposed critical habitat occurs within three miles of the project site (USFWS 2022a).

3.4.2 SPECIAL-STATUS WILDLIFE SPECIES AND CRITICAL HABITATS

No federally or state-listed as threatened or endangered wildlife species were detected during general biological surveys. In addition, no CDFW Species of Special Concern, Fully Protected, or Watch List species were detected within the survey area during general biological surveys.

Although not documented during the general biological surveys, two listed species, San Joaquin kit fox and Swainson’s hawk (*Buteo swainsoni*), have been documented within three miles of the project site, along with numerous other non-listed special-status wildlife species (Figure 3). An analysis of the potential for special-status wildlife to occur within the survey area is provided in Table 4. Please note that wildlife species with low potential to occur or not expected to occur are not addressed further in this report; because these species have low or no potential for occurrence, no impacts are anticipated on these species.

Table 4. Special-Status Wildlife Species with Potential to Occur Within the Bakersfield U-Haul Facility Project Survey Area

Species	Status	Habitat Description	Potential to Occur
INVERTEBRATES			
Crotch bumble bee (<i>Bombus crotchii</i>)	FC	Found in open grasslands and scrublands from coastal California east toward the Sierra-Cascade Crest (Williams et al. 2014; CDFW 2019).	Low. Grassland habitat on site is highly disturbed. Suitable native nectar sources not observed on site.
Monarch butterfly (<i>Danaus plexippus</i>)	FC	Found in open fields and meadows with milkweed in the summer. Found in a variety of habitats with nectar sources during the winter. Roost in eucalyptus, Monterey pines, and Monterey cypresses in California (USFWS 2022c).	Low. Milkweed not observed and limited nectar sources available. Suitable roosting habitat not present.
Vernal pool fairy shrimp (<i>Branchinecta lynchi</i>)	FT	Natural vernal pools or other seasonal pools (Eng et al. 1990).	None. No potential ponding features observed on site.
AMPHIBIANS			
California red-legged frog (<i>Rana draytonii</i>)	FT, SSC	Found in streams, marshes, and ponds (Jennings and Hayes 1994).	None. Suitable aquatic habitats are not present on site.

Species	Status	Habitat Description	Potential to Occur
REPTILES			
Blunt-nosed leopard lizard (<i>Gambelia silus</i>)	FE, SE	Found in valley and foothill grassland, saltbrush scrubland, iodine grassland, and <i>Sueda</i> flats (Pianka 1986). Species density is correlated with the presence of <i>Atriplex</i> and <i>Isomeris</i> bushes (City 1994).	Low. Blunt-nosed leopard lizard is not known from the area. Suitable habitat and associated vegetation are not found on site.
California glossy snake (<i>Arizona elegans occidentalis</i>)	SSC	Found in arid scrublands, rocky washes, grasslands, and chaparral containing open areas and loose soil for burrowing. This species occurs from the eastern portion of the San Francisco Bay region, south along the coastal plain, to northwestern Baja California (Zeiner et al. 1988-1990).	Low. Grassland habitat on site does not contain open areas and is not suitable for California glossy snake.
Giant garter snake (<i>Thamnophis gigas</i>)	FT, ST	Found in and around marshes, sloughs, and slow-moving creeks (USFWS 2022c).	None. Suitable aquatic habitats are not present on site.
BIRDS			
Burrowing owl (<i>Athene cunicularia</i>)	SSC (burrowing sites & some wintering sites)	Found in grasslands and open scrub from the coast to foothills (Haug et al. 1993). May also occur in agricultural areas, ruderal grassy fields, vacant lots, and pastures (Gervais et al. 2008). Strongly associated with California ground squirrel (<i>Otospermophilus beecheyi</i>) and other fossorial mammal burrows (Ronan 2002).	Low. Grassland habitat on site is dense. No California ground squirrel or other fossorial mammal burrows were present during the 2022 general biological survey.
California horned lark (<i>Eremophila alpestris actia</i>)	WL	Found from coastal deserts and grasslands to alpine dwarf-shrub habitat above treeline. Also seen in coniferous or chaparral habitats (Unitt 2004).	Moderate. Species is known from the local area and will utilize non-native grassland habitats, such as those found on the project site.

Species	Status	Habitat Description	Potential to Occur
Cooper's hawk (<i>Accipiter cooperii</i>)	WL (nesting)	Usually found in oak woodlands but occasionally in willow or eucalyptus woodlands (Unitt 2004).	Moderate. Species is known from the local area. An isolated eucalyptus, which can be utilized by Cooper's hawk, is present within the survey area. This species often occurs in residential areas, such as those adjacent to the site.
Mountain plover (<i>Charadrius montanus</i>)	SSC (wintering)	Winter visitor in California. Found in short-grass prairie, fallow or burned fields, alkali flats, and grazed grasslands (Unitt 2004).	Low. Although suitable habitat for this species is present among agricultural fields to the south, non-native grasses on site are dense which is not preferred by this species.
Southwestern willow flycatcher (<i>Empidonax traillii extimus</i>)	FE (nesting); SE (nesting)	Found in dense riparian woodlands comprised of willows and cottonwoods (Sogge 2010).	None. Suitable riparian habitats not present.
Swainson's hawk (<i>Buteo swainsoni</i>)	ST (nesting)	Found in open grasslands and swaths of agriculture intermixed with native habitat (Unitt 2004).	Low. Although suitable habitat for this species is present among agricultural fields to the south, the project site is isolated from these areas by development and unlikely able to supporting nesting.
Tricolored blackbird (<i>Agelaius tricolor</i>)	ST (nesting colony)	Found nesting in wetlands with cattails, bulrushes, and willows. Forages in cultivated fields, feedlots associated with dairy farms, and wetlands (Unitt 2004).	None. The project site does not support nesting habitat and is not in close enough proximity to foraging habitat to support breeding.
Western yellow-billed cuckoo (<i>Coccyzus americanus occidentalis</i>)	FT (nesting); ST (nesting)	Found in valley foothill and desert riparian habitats (USFWS 2022c).	None. Suitable riparian habitats not present.
MAMMALS			
American badger (<i>Taxidea taxus</i>)	SSC	Found in arid, open grasslands, fields, and pastures containing firm soil for burrowing. American badger may also be found in marshes and deserts (Zeiner et al. 1988-1990).	Low. Grasslands on site are dense and unsuitable for American badger. Adjacent habitat is largely developed.

Species	Status	Habitat Description	Potential to Occur
Buena Vista Lake ornate shrew (<i>Sorex ornatus relictus</i>)	FE, SSC	Found in wetland and aquatic habitats such as marshes, lakes, and sloughs (USFWS 2022c).	None. Aquatic habitats are not present on site.
Giant kangaroo rat (<i>Dipodomys ingens</i>)	FE, SE	Found in annual grasslands with flat to gently sloping terrain, fine sandy soil, and few scrubs (USFWS 2022c).	None. Giant kangaroo rats are not known from this area and the project site is located at the far eastern extent of their range.
San Joaquin (Nelson's) antelope squirrel (<i>Ammospermophilus nelsoni</i>)	ST	Found in shrubland and grassland communities, including non-native grasslands (Zeiner et al. 1988-1990).	Low. San Joaquin antelope squirrel is not known from the area. Grassland present on site is highly disturbed and adjacent habitat is largely developed.
San Joaquin kit fox (<i>Vulpes macrotis mutica</i>)	FE, ST	Found in grassland and shrubland communities (USFWS 2010).	Low. Grassland present on site is highly disturbed and adjacent habitat is largely developed. Urban populations of this species are marginal due to the intense environmental pressure they experience in human-inhabited areas.
Short-nosed kangaroo rat (<i>Dipodomys nitratooides brevinasus</i>)	SSC	Found in grasslands, saltbrush scrub, and desert-shrub communities with friable, alkaline soils (Brylski 1998).	None. Short-nosed kangaroo rat is not known from the area. Suitable habitat and soils are not present.
Tipton kangaroo rat (<i>Dipodomys nitratooides nitratooides</i>)	FE, SE	Found in alluvial fan, floodplain, alkali sink scrub and valley saltbrush scrub communities with sparsely scattered scrubs and low-to-moderate groundcover (USFWS 2022c).	None. Tipton kangaroo rat is not known from the area. Suitable habitats are not present, and groundcover is too high to support this species.
FC: Federal Candidate Species for listing under the Endangered Species Act FE: Federally Endangered FT: Federally Threatened SE: State Endangered ST: State Threatened SSC: CDFW Species of Special Concern WL: CDFW Watch List Species			

3.4.2.1 Threatened and Endangered Wildlife Species

No federally or state-listed as threatened or endangered wildlife species were observed during the general field survey, and none have a moderate or high potential to occur based on the disturbed nature of the site, lack of suitable habitats, and surrounding land use (Table 4).

3.4.2.2 Species of Special Concern, Fully Protected, and Watch List Wildlife Species

No CDFW Species of Special Concern, Fully Protected, or Watch List wildlife species were observed during the general field survey. Two special-status species, California horned lark (*Eremophila alpestris actia*) and Cooper's hawk (*Accipiter cooperii*), have a moderate potential to occur in the survey area (Table 4).

California Horned Lark

California horned lark is designated a CDFW Watch List species, which is found from coastal deserts and grasslands to alpine dwarf-shrub habitat above treeline, and in coniferous or chaparral habitats. It is a common to abundant resident in a variety of open habitats, usually found in habitats where trees and large shrubs are absent. Within southern California, California horned lark nests on the ground in open fields, grasslands, and rangelands. Horned larks forage in areas with low-growing vegetation and feed primarily on grains and other seeds, shifting to mostly insects in the summer months. California horned lark breeds from March through July, with a peak in activity in May. Pairs do not maintain territories outside of the breeding season and instead form large gregarious, somewhat nomadic flocks.

Threats to California horned lark include habitat destruction and fragmentation. Habitats preferred by California horned lark are easily converted to other landscapes and human uses such as farmland and development. Pesticides have also been shown to poison and kill horned larks (Beason 1995). As a ground nester, California horned lark is vulnerable to mowing in a variety of habitats and pesticide use in agricultural fields.

California horned lark was not observed during the general biological survey. However, suitable grassland habitat is present throughout project site and this species is known to occur within the local area (eBird 2022). As such, California horned lark has moderate potential to occur within the survey area, including the project site.

Cooper's Hawk

Cooper's hawk is a CDFW Watch List species when nesting. Cooper's hawk breeds throughout the United States and into Canada and Mexico. In California, Cooper's hawk nests in live oak, riparian, and other forest habitats from sea level to 9,000 feet. The Cooper's hawk is tolerant of human disturbance and habitat fragmentation and nests in suburban and urban settings (Murphy et al. 1988). Cooper's hawk hunt in open woodland and habitat edges, catching avian prey in the air, on the ground, and in vegetation. The Cooper's hawk hunts a variety of small birds and may also hunt small mammals, reptiles, and amphibians. Their nest is typically a platform of sticks and twigs lined with bark (Call 1978) and eggs are laid in February through June with the clutch size of four to five eggs (Brown and Amadon 1968).

Habitat loss, especially in riparian areas, is attributed to declining populations of Cooper's hawk in Southern California. Other threats include direct or indirect human disturbance at nest sites, and eggshell thinning from pesticide use, although this threat is largely abated through the change in pesticide chemicals used after the 1970's (Terres 1980).

Cooper's hawk was not observed during general biological surveys. Suitable nesting habitat (i.e., eucalyptus) is present within the survey area and adjacent residential areas are suitable for hunting. In addition, this species is known to occur within the local area (eBird 2022). As such, Cooper's hawk has moderate potential to occur within the survey area, including the project site.

3.4.2.3 Critical Habitat

The ESA defines critical habitat as a specific geographic area, or areas, that contains features essential for the survival and recovery of endangered and threatened species. USFWS designates critical habitat for endangered and threatened species and may include sites for breeding and rearing, movement or migration, feeding, roosting, cover, and shelter. Critical habitat may also include areas that are not currently occupied by the species, but that will be needed for its recovery. Special management of critical habitat, including measures for water quality and quantity, host animals and plants, food availability, pollinators, sunlight, and specific soil types, is required to ensure the long-term survival and recovery of the identified species.

No USFWS-designated critical habitat or proposed critical habitat occurs within three miles of the project site (USFWS 2022a).

3.5 WILDLIFE CORRIDORS

A wildlife corridor can be defined as a physical feature that links wildlife habitat, often consisting of native vegetation that joins two or more larger areas of similar wildlife habitat. Corridors enable migration, colonization, and genetic diversity through interbreeding and are therefore critical for the movement of animals and the continuation of viable populations. Corridors can consist of large, linear stretches of connected habitat (such as riparian vegetation) or as a sequence of stepping-stones across the landscape (discontinuous areas of habitat such as wetlands and ornamental vegetation), or corridors can be larger habitat areas with known or likely importance to local fauna.

Regional corridors are defined as those linking two or more large patches of habitat, and local corridors are defined as those allowing resident animals to access critical resources (food, cover, and water) in a smaller area that might otherwise be isolated by urban development. A viable wildlife migration corridor consists of more than an unobstructed path between habitat areas. Appropriate vegetation communities must be present to provide food and cover for both transient species and resident populations of less mobile animals. There must also be a sufficient lack of stressors and threats within and adjacent to the corridor for species to use it successfully.

The survey area does not likely serve as a local wildlife corridor due to the heavy development and conversion of land to agriculture in the surrounding area which has largely eliminated undisturbed habitat to support native species. In addition, the survey area itself lacks native habitats and is immediately surrounded by development and disturbed land.

4 IMPACT ANALYSIS

Direct impacts are caused by the project and occur at the same time and place as the project. Any alteration, disturbance, or destruction of biological resources that would result from project-related activities is considered a direct impact. Direct impacts would include direct losses to native habitats, potential jurisdictional waters, wetlands, and special-status species; and diverting natural surface water flows. Direct impacts could include injury, death, and/or harassment of listed and/or special-status species. Direct impacts could also include the destruction of habitats necessary for species breeding, feeding, or sheltering. Direct impacts on plants can include crushing of adult plants, bulbs, or seeds.

Indirect impacts can result from project-related activities where biological resources are affected in a manner that is not direct. Indirect impacts may occur later in time or at a place that is farther removed in distance from the project than direct impacts, but indirect impacts are still reasonably foreseeable and attributable to project-related activities. Examples include habitat fragmentation; elevated noise, dust, and lighting levels; changes in hydrology, runoff, and sedimentation; decreased water quality; soil compaction; increased human activity; and the introduction of invasive wildlife (including domestic cats and dogs) and plants. As noted in Section 2, the project survey area included a 100-foot buffer to identify nearby biological resources and to aid in assessment of potential indirect impacts on protected resources, if present.

Cumulative impacts refer to incremental individual environmental effects of two or more projects when considered together. Such impacts taken individually may be minor but are collectively significant considering regional impacts.

CEQA Guidelines thresholds of significance have been used to determine whether project implementation would result in a significant direct, indirect, and/or cumulative impact. These thresholds are based on Appendix G of the CEQA Guidelines (California Code of Regulations [CCR] Title 14, Division 6, Chapter 3, Sections 15000–15387). A significant biological resources impact would occur if the project would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS;
- Have a substantial adverse effect on federal protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marshes, vernal pools, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;

- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy, or ordinance;
- Conflict with the provisions of an adopted Habitat Conservation Plan; Natural Community Conservation Plan; or other approved local, regional, or state habitat conservation plan.

4.1 VEGETATION IMPACTS

The project would result in permanent impacts on non-native grassland (10.6 acre), disturbed habitat (0.6 acre), and developed land (0.1 acre) (Figure 4, Table 5). These non-native vegetation communities/land covers are not considered sensitive, and impacts do not require mitigation. Therefore, impacts to sensitive communities resulting from the project would be less than significant.

Non-native grassland is not a native habitat and is not considered a sensitive habitat by CDFW; however, it is considered to have some biological value for raptor foraging and other wildlife use. Special-status avian species (i.e., California horned lark) that utilize non-native grasslands have moderate potential to occur on the project site. Potential impacts to avian species are addressed in Section 5.2; therefore, impacts to sensitive species using non-native grassland would be less than significant with the implementation of the appropriate mitigation.

Table 5. Bakersfield U-Haul Facility Project Vegetation Communities/Land Cover Impacts

Vegetation	MCV2 Classification System ¹	Global/State Rank	Bakersfield U-Haul Facility Project Site Impacts (acres)
Non-native Grassland	<i>Bromus rubens</i> – <i>Schismus (arabicus, barbatus)</i> Herbaceous Semi-Natural Alliance	No Rank	10.6
Developed	Developed/Disturbed	No Rank	0.1
Disturbed Habitat	Developed/Disturbed	No Rank	0.6
Total			11.3

¹ Vegetation communities crosswalked to *The Manual of California Vegetation* (Sawyer et al. 2009)

4.2 POTENTIAL JURISDICTIONAL AQUATIC RESOURCES IMPACTS

The proposed project is not expected to impact jurisdictional aquatic resources as such features were not documented on site (See Section 3.3). Therefore, permitting through the Corps, RWQCB, and CDFW is not expected to be required for the proposed project. Should the project limits change and impact the potentially jurisdictional aquatic resources described in Section 3.3, a formal, project-specific aquatic resources delineation and reporting per Corps’ standards and guidelines and further coordination would be required to receive an official determination from the Corps related to potential aquatic resources on site. Similarly, coordination with the RWQCB and CDFW would be required to receive concurrence regarding the jurisdictional status of on-site potential aquatic resources. Assuming the areas described in Section 3.3 that occur within the

project buffer are avoided, no impacts on potentially jurisdictional aquatic resources would occur with project implementation.

4.3 SPECIAL-STATUS PLANTS AND WILDLIFE IMPACTS

4.3.1 SPECIAL-STATUS PLANT SPECIES

No federally or state-listed as endangered or threatened plant species have been detected on the project site, and none have moderate to high potential to occur on the project site based on the lack of suitable habitat on site. No other special-status plant species, including CRPR species have been detected on the project site, and none have moderate to high potential to occur within the project site based on the lack of suitable habitat on site. As such, no impacts on special-status plant species are anticipated with project implementation.

4.3.2 SPECIAL-STATUS WILDLIFE SPECIES

No federally or state-listed as endangered or threatened wildlife species have been detected on the project site, and none have moderate to high potential to occur within the project site based on the lack of suitable habitat, extensive site disturbance, and surrounding development. As such, no impacts on federally or state-listed endangered or threatened wildlife species are anticipated with project implementation.

Two CDFW Watch List species, California horned lark and Cooper's hawk, have moderate potential to occur on the project site. Adult avian species would likely flush during initial project activities, and with implementation of nesting bird protections discussed in Section 5 (MM-2), potential impacts on nests would be avoided. Thus, with the implementation of the appropriate mitigation, impacts on special-status wildlife species resulting from the project would be less than significant. Additionally, the project occurs within the MBHCP, a regional conservation plan. Though these species are not 'covered' endangered or threatened species under the plan, the MBHCP is a habitat-based conservation plan which is intended to provide habitats for all local native species, covered and non-covered.

4.3.3 NESTING BIRD IMPACTS

The project site has potential to support avian nests, which would be protected under the MBTA and/or CFGC §3503, which provides that it is unlawful to "take, possess, or needlessly destroy" avian nests or eggs. Thus, potential impacts could occur if construction, such as ground disturbing activities or vegetation clearing is undertaken during the breeding season. To avoid potential impacts on nesting birds, removal of habitat should occur outside of the breeding season (February 1 to August 31). If vegetation/habitat removal cannot occur outside of the breeding season, a qualified biologist should survey the area prior to construction initiation. If active nests are found, construction in that area plus an appropriate buffer (determined by the qualified biologist in consultation with CDFW) should be avoided until nestlings have fledged and the nest becomes inactive. Please refer to Section 5.2 for full nest protection requirements. With the implementation

of the pre-construction nesting bird surveys and avoidance measures outlined in Section 5.2, potential impacts would be less than significant.

4.4 WILDLIFE CORRIDOR IMPACTS

The survey area does not likely serve as a local wildlife corridor. Significant development surrounds the project site and native vegetation that could support substantial wildlife movement through the site is not present. Therefore, impacts on wildlife movement and corridors would be less than significant.

4.5 LOCAL POLICIES & ORDINANCES IMPACTS

The project is subject to the City of Bakersfield Municipal Code Section 17.61.050: Tree Preservation and Protection, which provides that trees removed on a project site must be replaced and gives specific parameters for replacement. No trees occur on the project site. As such, the project would not conflict with the City of Bakersfield Municipal Code Section 17.61.050; therefore, no project impacts on local policies and are expected to occur with project implementation.

4.6 HABITAT CONSERVATION PLAN; NATURAL COMMUNITY CONSERVATION PLAN; OR OTHER APPROVED LOCAL, REGIONAL, OR STATE HABITAT CONSERVATION PLAN IMPACTS

The project is located within the MBHCP area (City 1994). The City is a Permittee in the MBHCP, and therefore, projects under their authority are subject to the MBHCP and granted take authorization for listed species as detailed in Section 2 of this report. No species covered under the MBHCP have moderate or high potential to occur with project implementation, and the project would comply with mitigation fee requirements of the plan. As such, no conflicts with the HCP resulting from the proposed project are anticipated. Because there would be no conflicts with the MBHCP, there would be no project impacts related to this plan and no mitigation is required.

4.7 CUMULATIVE IMPACTS

The project would result in impacts on species of special concern, such as California horned lark and Cooper's hawk, if present. As previously stated, the project is within the MBHCP, which is a regional effort to offset significant cumulative biological impacts, and all development in the region that is permitted through the City must comply with the MBHCP. Because of this regional biological planning, cumulative biological impacts on vegetation communities and most species in the region are not significant when developments are pursued in compliance with the MBHCP. The City is a participant under the MBHCP and project mitigation will be pursued in a manner consistent with the MBHCP; therefore, most cumulative impacts are considered less than significant.

As such, project implementation would not result in significant cumulative impacts on biological resources.

5 MITIGATION

The following discussion provides project-specific mitigation/avoidance measures for potential impacts on biological resources. With implementation of these measures, all project impacts are less than significant.

Additionally, for planning purposes note that the following must be completed prior to issuance of a grading or building permit (see Section 1.3.3 for additional information):

- A Biological Clearance Survey is required on all projects no more than 30 days prior to grading by a CDFW-approved Qualified Biologist.
- All surveys must be delivered to USFWS, CDFW, and the County of Kern.
- If survey results include presence of Covered Species (e.g., San Joaquin kit fox, Tipton kangaroo rat, San Joaquin antelope squirrel, or Bakersfield cactus), then the ITP requires the submittal of additional information to adhere to the conditions of the ITP and minimize take of a Covered Species.

5.1 MBHCP MITIGATION FEE

The project is subject to MBHCP requirements including payment of mitigation fees.

MM-1: A mitigation fee of \$2,145.00 per gross acre of land developed will be paid at the time of grading permit approval or issuance of building permits, whichever comes first.

5.2 NESTING BIRD AVOIDANCE AND MINIMIZATION MEASURES

The project site supports suitable habitat for nesting birds. As such, the following mitigation is required to reduce impacts on nesting birds:

MM-2: To avoid direct impacts on raptors and/or native/migratory birds, including California horned lark and Cooper's hawk, vegetation removal and ground-disturbing activities should occur outside of the breeding season (February 1 to August 31). If vegetation removal and ground-disturbing activities must occur during the breeding season, a qualified biologist shall conduct a pre-construction survey to determine the presence or absence of nesting birds in the proposed area of disturbance. The pre-construction survey shall be conducted within three (3) calendar days prior to the start of construction activities (including removal of vegetation).

If nesting birds are observed, a letter report or mitigation plan in conformance with applicable state and federal law (i.e., appropriate follow up surveys, monitoring schedules, construction and noise barriers/buffers) shall be prepared and include proposed measures to be implemented to ensure that take of birds or eggs or disturbance of breeding activities is avoided. The report or mitigation plan shall be submitted to the City of Bakersfield for review and approval and implemented to the satisfaction of the City. The project biologist shall verify that all measures identified in

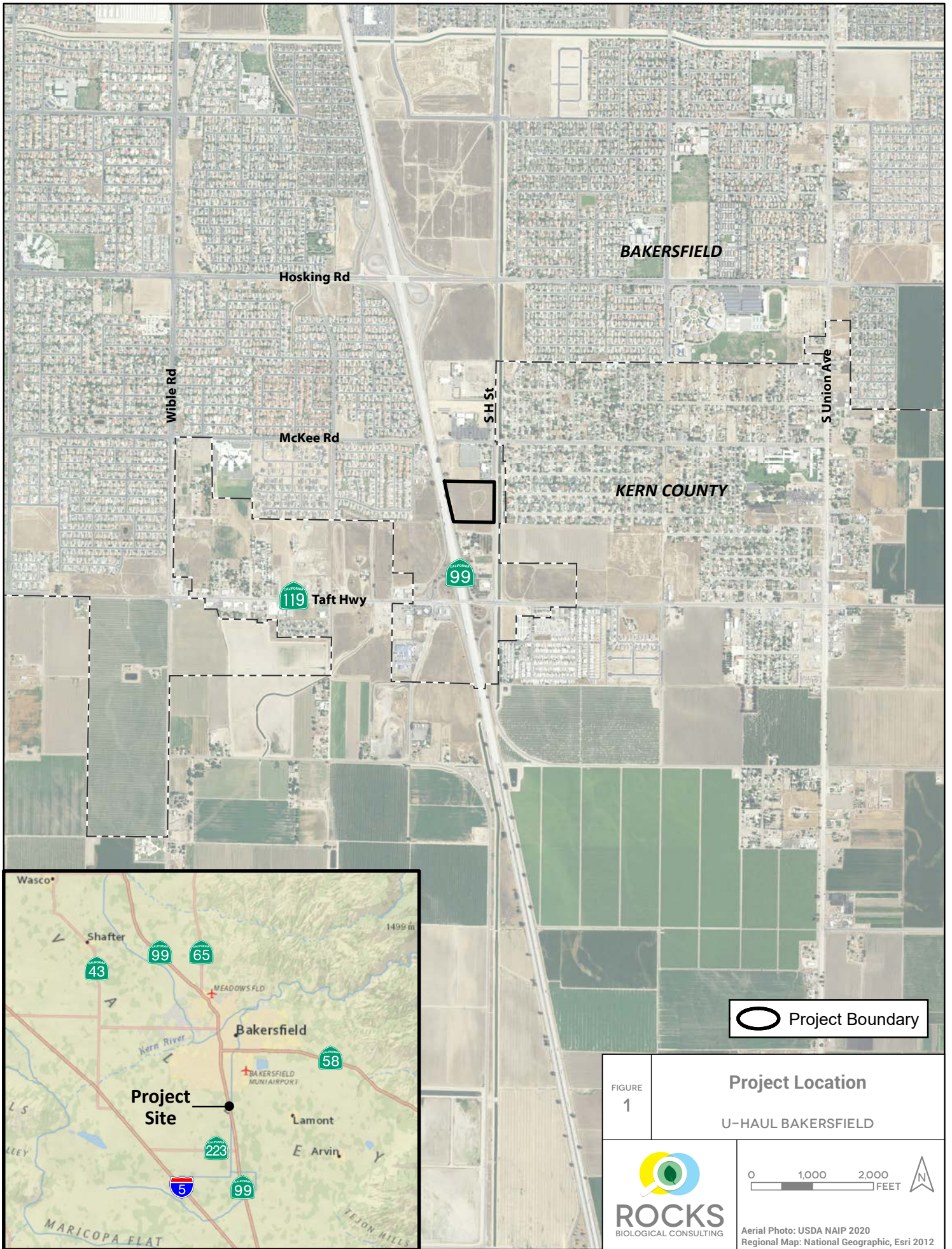
the report or mitigation plan are in place prior to and/or during construction. If nesting birds are not detected during the pre-construction survey, no further mitigation is required.

6 REFERENCES

- Baldwin, B. G., D. H. Goldman, D. J. Keil, R. Patterson, T. J. Rosatti, and D. H. Wilken. 2012. The Jepson Manual. Vascular plants of California (Second edition). Berkeley, Los Angeles, and London: University of California Press.
- Beason, R. C. 1995. Horned Lark (*Eremophila alpestris*) In The Birds of North America, No. 195 (A. Poole and F. Gill, eds.) The Academy of Natural Sciences, Philadelphia, PA and The American Ornithologists' Union, Washington, D.C.
- Brown, L., and D. Amadon. 1968. Eagles, Hawks and Falcons of the World. 2 Vols. Country Life Books, London. 945 pp.
- Brylski, P. V. 1998. Short-nosed Kangaroo Rat (*Dipodomys nitratooides brevinasus*). Terrestrial Mammal Species of Special Concern in California, Bolster, B.C.
- Calflora Database [a non-profit organization]. 2022. Calflora: Information on California plants for education, research and conservation, with data contributed by public and private institutions and individuals, including the Consortium of California Herbaria. [web application]. Berkeley, California: Available: <https://www.calflora.org> (Accessed: 03/21/2022).
- [CDFW] California Department of Fish and Wildlife. 2019. Evaluation of the Petition from The Xerces Society, Defenders of Wildlife, and The Center for Food Safety to List Four Species of Bumble Bees as Endangered Under the California Endangered Species Act.
2021. California Natural Community List. September 9. Accessed February 2022. <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=153398&inline>
2022a. California Natural Diversity Database (CNDDDB) – Electronic Format.
2022b. CNDDDB Special Animals List. January 2022. Sacramento, California.
2022c. CNDDDB Special Vascular Plants, Bryophytes, and Lichens List. January 2022. Sacramento, California.
- [CNPS] California Native Plant Society Rare Plant Program. 2022. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Accessed February 2022. <http://www.rareplants.cnps.org>
- Call, M. W. 1978. Nesting Habitats and Surveying Techniques for Common Western Raptors. Technical Note TN-316. U.S. Department of the Interior - Bureau of Land Management, Denver Service Center.
- [City] City of Bakersfield and County of Kern. 1994. Metropolitan Bakersfield Habitat Conservation Plan. SCH# 89020264. Bakersfield, CA. <https://psbweb.co.kern.ca.us/planning/pdfs/MetroBakHCP.pdf>
- City of Bakersfield. 2002. Metropolitan Bakersfield General Plan. Effective February 26, 2003. Bakersfield, CA.
2018. City of Bakersfield Municipal Code Section 17.61.050. Effective September 5, 2018, as amended by Order 4943. Bakersfield, CA.
- eBird. 2022. eBird: An online database of bird distribution and abundance [web application]. eBird, Cornell Lab of Ornithology, Ithaca, New York. Available: <http://www.ebird.org>. (Accessed: March 2022).
- Eng, L., D. Belk, and C. Eriksen. 1990. California Anostraca: Distribution, Habitat, and Status. Journal of Crustacean Biology Vol. 10, No. 2.
- Gervais, J. A., D. K. Rosenberg, and L. A. Comrack. 2008. Burrowing Owl (*Athene cunicularia*). California bird species of special concern: a ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California (WD Shuford and T. Gardali, editors). Western Field Ornithologists and California Department of Fish and Game, Studies of Western Birds, 1, pp.1-450.

- Google Earth Pro (V 7.3.4.8248). 2022. Kern County, California. 35°16'16.05"N, 119° 1'21.73"W. Image Google. Last accessed March 2022.
- Haug, E. A., B. A. Millsap, and M. S. Martell. 1993. Burrowing Owl: *Speotyto Cunicularia*. American Ornithologists' Union.
- Holland, R. F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. State of California, The Resources Agency, Department of Fish and Game.
- Jennings, M. R., and M. P. Hayes. 1994. Amphibian and Reptile Species of Special Concern in California. Final report submitted to California Department of Fish and Game, Inland Fisheries Division, Rancho Cordova, California, under Contract 8023.
- Kern County Planning Department. 2009. Kern County General Plan. Bakersfield, CA.
- Kern County Planning and Natural Resources Department. 2022. Metropolitan Bakersfield HCP Incidental Take Permit. <https://kernplanning.com/metropolitan-bakersfield-hcp-incident-take-permit>. Accessed April 12, 2022.
- Murphy, R. K., M. W. Gratson, and R. N. Rosenfield. 1988. Activity and Habitat Use by a Breeding Male Cooper's Hawk in a Suburban Area. *J. Raptor Research* 22: 97-100.
- Natural Resources Conservation Service (NRCS). 2022. Web Soil Survey. Last accessed February 2022. <https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>
- NetrOnline. 2022. Historic Aerials (1952 – 2018). Last accessed April 2022. <https://www.historicaerials.com/>
- Pianka, E. R. 1986. Ecology and Natural History of Desert Lizards. Princeton University Press, Princeton.
- Ronan, N. A. 2002. Habitat Selection, Reproductive Success, and Site Fidelity of Burrowing Owls in a Grassland Ecosystem.
- Sawyer, J. O., T. Keeler-Wolf, and J. M. Evens. 2009. *The Manual of California Vegetation*. Second edition, California Native Plant Society Press.
- Sogge, M. K., D. Ahlers, and S. J. Sferra. 2010. A Natural History Summary and Survey Protocol for the Southwestern Willow Flycatcher: U.S. Geological Survey Techniques and Methods 2A-10, 38 pp. [<http://pubs.usgs.gov/tm/tm2a10/pdf/tm2a10.pdf>]
- Terres, J. K. 1980. The Audubon Society Encyclopedia of North American Birds. Alfred A. Knopf, New York, New York. 1109 pp.
- [USFWS] United States Fish and Wildlife Service. 2010. Species Account San Joaquin Kit Fox *Vulpes macrotis mutica*. Sacramento, CA.
- 2022a. FWS Critical Habitat for Threatened and Endangered Species Dataset. Land Use - 2014 - Land IQ [ds2677] - Data.gov. Available at: <https://catalog.data.gov/dataset/fws-critical-habitat-for-threatened-and-endangered-species-dataset> (accessed February 2022).
- 2022b. National Wetlands Inventory website. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. Last accessed February 2022. <http://www.fws.gov/wetlands/>
- 2022c. IPaC: Information for Planning and Consultation, Powered by ECOS – the Environmental Conservation Online System. Website <https://ecos.fws.gov/ipac/> (accessed March 18, 2022).
- 2022d. Occurrence Information for Multiple Species with Jurisdiction of the Carlsbad Fish and Wildlife Office (CFWO). <https://www.fws.gov/carlsbad/gis/cfwogis.html> (accessed February 2022).
- [USGS] United States Geological Survey. 2022. The National Map, Advanced Viewer. U.S. Department of Interior. Last accessed February 2022. <https://viewer.nationalmap.gov/advanced-viewer/>

- 2022b. USGS U.S. Topo 7.5 – minute map for GOSFORD, CA. Accessed February 2022.
- Unitt, P. 2004. San Diego County Bird Atlas. Proceedings of the San Diego Natural History Museum, No. 39. Ibis Publishing, Vista, CA. 644 pp.
- Williams, P. H., R. W. Thorp, L. L. Richardson, and S. R. Colla. 2014. The Bumble Bees of North America: An Identification Guide. Princeton University Press, Princeton, NJ. 208 pp.
- Zeiner, D. C., W. F. Laudenslayer, Jr., K. E. Mayer, and M. White, eds. 1988-1990. California's Wildlife. Vol. I-III. California Depart. of Fish and Game, Sacramento, California.



BAKERSFIELD

Hosking Rd

McKee Rd

Wible Rd

SH St

S Union Ave

KERN COUNTY

119 Taft Hwy

99



○ Project Boundary

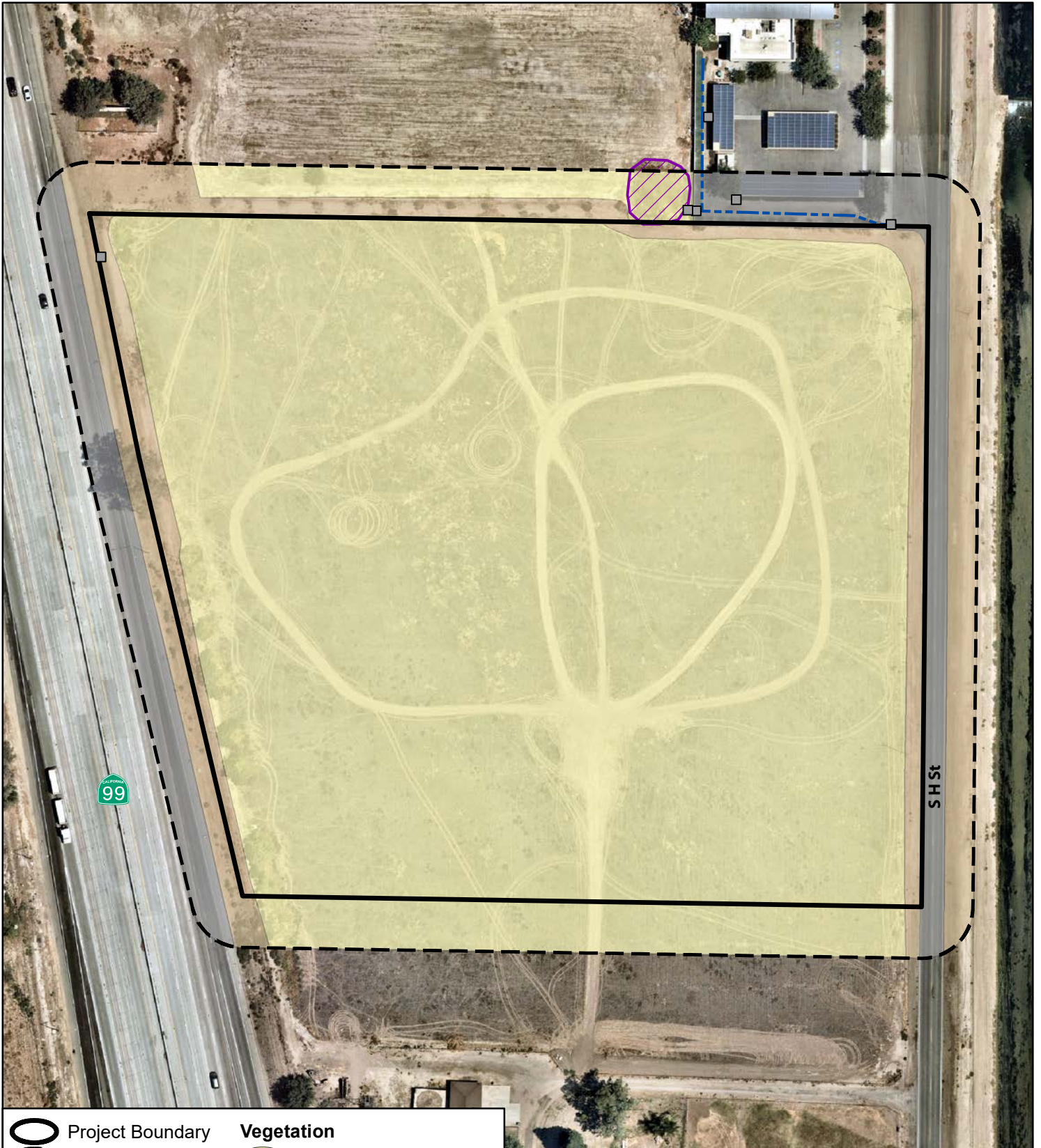
FIGURE 1









Project Location

U-HAUL BAKERSFIELD





Aerial Photo: USDA NAIP 2020
Regional Map: National Geographic, Esri 2012




	Project Boundary	Vegetation
	Survey Area	 Non-native Grassland
	Culvert	 Disturbed Habitat
	Ditch*	 Developed
	Depression*	

* Based on constraints-level analysis. Should project limits change, a formal aquatic resources delineation, including data collection and associated aquatic resources delineation report (ARDR), and further coordination with the Corps, RWQCB, and CDFW may be required.

FIGURE 2	Biological and Aquatic Resources U-HAUL BAKERSFIELD
	 ROCKS BIOLOGICAL CONSULTING

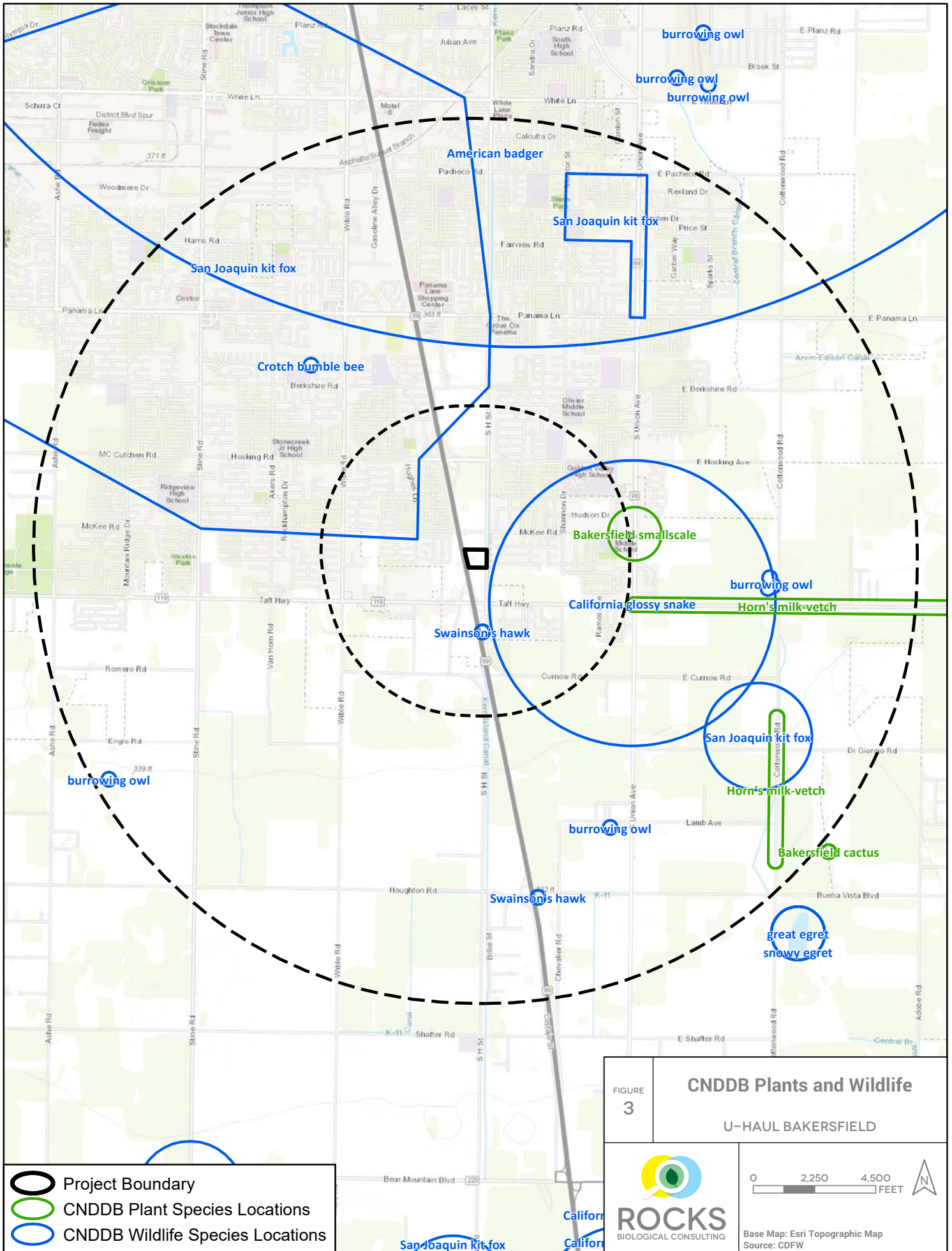


0 65 130 FEET



N

Aerial Photo: Nearmap 2021







-  Project Boundary
-  CNDDB Plant Species Locations
-  CNDDB Wildlife Species Locations

FIGURE 3
CNDDB Plants and Wildlife
 U-HAUL BAKERSFIELD



0 2,250 4,500
 FEET

Base Map: Esri Topographic Map
 Source: CDFW



	Project Boundary	Vegetation
	Survey Area	Non-native Grassland
	Project Impacts	Disturbed Habitat
	Culvert	Developed
	Ditch*	
	Depression*	

* Based on constraints-level analysis. Should project limits change, a formal aquatic resources delineation, including data collection and associated aquatic resources delineation report (ARDR), and further coordination with the Corps, RWQCB, and CDFW may be required.

FIGURE 4	Impacts	
	U-HAUL BAKERSFIELD	
Aerial Photo: Nearmap 2021		

APPENDIX A

**BAKERSFIELD U-HAUL FACILITY PROJECT
SURVEY AREA SITE PHOTOGRAPHS**

APPENDIX A

BAKERSFIELD U-HAUL FACILITY PROJECT SURVEY AREA SITE PHOTOGRAPHS



Photo 1. Representative photo of non-native grassland throughout project area.
February 21, 2022.



Photo 2. View of non-native grassland from eastern portion of the survey area, facing west.
February 21, 2022.



Photo 3. View of disturbed and non-native grassland within southwestern portion of the survey area, facing northeast. February 21, 2022.



Photo 4. View of ditch in northern portion of the project buffer, facing south. February 21, 2022.



Photo 5. View of curb cut leading from parking facilities to ditch in northern portion of the project buffer, facing north. February 21, 2022.



Photo 6. View of depressional area in the northern portion of the project buffer. February 21, 2022.

APPENDIX B

PLANT AND WILDLIFE SPECIES OBSERVED WITHIN THE BAKERSFIELD U-HAUL FACILITY PROJECT SURVEY AREA

APPENDIX B

PLANT AND WILDLIFE SPECIES OBSERVED WITHIN THE BAKERSFIELD U-HAUL FACILITY PROJECT SURVEY AREA

Family	Common Name	Scientific Name
Plants		
Boraginaceae	rigid fiddleneck	<i>Amsinckia menziesii</i>
Brassicaceae	London rocket	<i>Sisymbrium irio</i> *
Chenopodiaceae	Australian tumbleweed	<i>Salsola australis</i> *
Geraniaceae	red-stem filaree	<i>Erodium cicutarium</i> *
Malvaceae	cheeseweed	<i>Malva parviflora</i> *
Myrtaceae	gum	<i>Eucalyptus sp.</i> *
Poaceae	ripgut grass	<i>Bromus diandrus</i> *
Poaceae	red brome	<i>Bromus rubens</i> *
Poaceae	barley	<i>Hordeum sp.</i> *
Birds		
Accipitridae	red-tailed hawk	<i>Buteo jamaicensis</i>
Charadriidae	killdeer	<i>Charadrius vociferus</i>
Columbidae	rock pigeon	<i>Columba livia</i> *
Columbidae	mourning dove	<i>Zenaida macroura</i>
Fringillidae	house finch	<i>Haemorhous mexicanus</i>
Laridae	California gull	<i>Larus californicus</i>
Mimidae	northern mockingbird	<i>Mimus polyglottos</i>
Passerellidae	savannah sparrow	<i>Passerculus sandwichensis</i>
Trochilidae	Anna's hummingbird	<i>Calypte anna</i>
Tyrannidae	black phoebe	<i>Sayornis nigricans</i>
*Non-native species		



February 23, 2022

City of Bakersfield

RE: *Traffic Impact Study Scoping Agreement for the Proposed U-Haul Moving and Storage Development in the City of Bakersfield*

Kimley-Horn and Associates, Inc. is pleased to submit this Scoping Agreement for the proposed development at 9203 South H Street in the City of Bakersfield. The scope of the traffic impact study is summarized below. This scope of work is based on the requirements of the City of Bakersfield, Kern County, and Caltrans.

Project Description

The applicant proposes a development consisting of a 33,978-SF 4-story building with 135,912 SF of gross leasable floor area, a 36,977-SF building, and a 32,421-SF building to provide accommodations for mini-storage, warehousing, and U-Haul truck rental services. The existing site is vacant. Ingress and egress will be provided into the site via three full access unsignalized driveways located along South H Street. The project site, in its regional setting, is shown on Figure 1. The site plan is shown on Figure 2.

Study Scenarios

The following study scenarios will be included for analysis:

- Existing Conditions
- Existing Plus Project
- Opening Year
- Opening Year Plus Project

Study Methodology

Intersection Level of Service calculations will be based on the latest version of the Highway Capacity Manual (HCM) Methodology for unsignalized and signalized intersections to be consistent with City, County, and Caltrans guidelines.

Project Trip Generation

Daily and peak hour trips for the proposed project were calculated using the trip generation rates published in the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition (2021). Trip rates are based on the following ITE Land Use Category:

- LU 151 – Mini-Warehouse

The resulting trip rates and the project trip generation estimates are shown on Table 1. The project is estimated to generate approximately 19 trips in the morning peak hour (11 inbound, 8 outbound) and

30 trips in the evening peak hour (14 inbound, 16 outbound), with 298 vehicle trips on a daily basis.

TABLE 1 SUMMARY OF PROJECT TRIP GENERATION									
Land Use	ITE Code	Unit	Trip Generation Rates ¹						
			Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Mini-Warehouse	151	KSF	1.45	0.053	0.037	0.09	0.071	0.080	0.15
Trip Generation Estimates									
Land Use	Quantity	Unit	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Mini-Warehouse	205.310	KSF	298	11	8	19	14	16	30
Total Project Trips			298	11	8	19	14	16	30
¹ Source: Institute of Transportation Engineers (ITE) <u>Trip Generation Manual</u> , 11 th Edition									

Project Trip Distribution

Project trip distribution assumptions for the Plus Project conditions are shown on Figure 3.

Background Traffic

The project is anticipated to be open in 2023. Existing traffic volumes will be grown at a rate of 2% per year to account for ambient growth between Existing and Opening Year scenarios. Additionally, traffic from cumulative projects within a five-mile radius of the proposed site will be included in the Opening Year scenario.

Study Intersections

Based on the Caltrans threshold for intersections to be studied, the following study intersections are proposed:

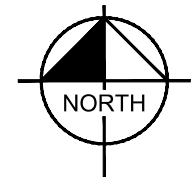
1. S H Street and McKee Road
2. S H Street and Taft Highway

Traffic Counts

Peak hour traffic counts at intersections will be conducted on a typical weekday during the morning and evening peak periods (7:00AM – 9:00AM, 4:00PM – 6:00PM).



FIGURE 1
VICINITY MAP



NOT TO SCALE



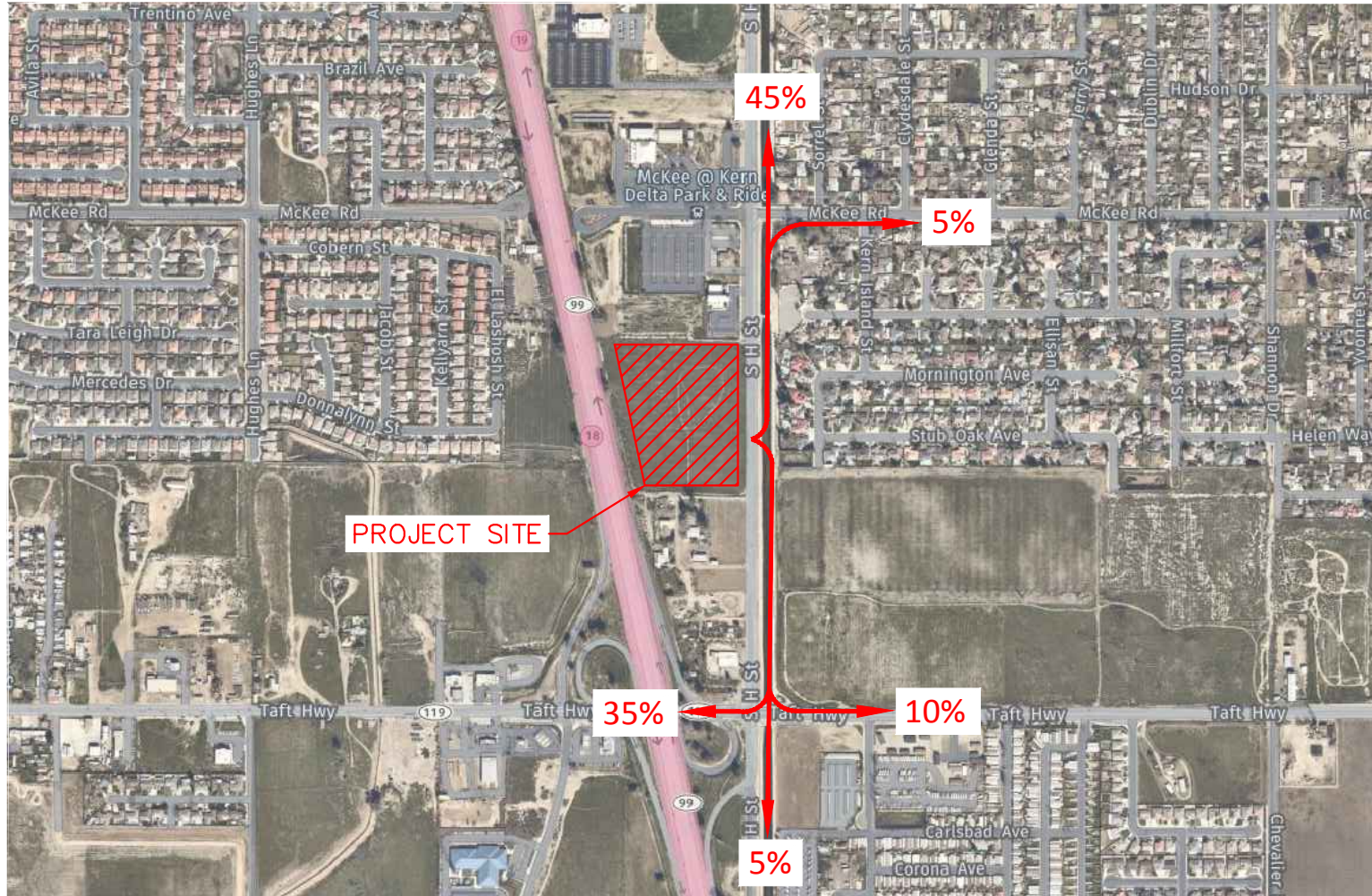
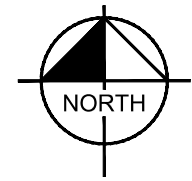


FIGURE 3
TRIP DISTRIBUTION ASSUMPTIONS



NOT TO SCALE



June 10, 2022

Jose Fernandez
Associate Planner
City of Bakersfield

RE: *Vehicle Miles Traveled Memorandum for the Proposed U-Haul Moving and Storage Development in the City of Bakersfield*

Dear Mr. Fernandez:

Kimley-Horn and Associates, Inc. has prepared this Vehicle Miles Traveled (VMT) memorandum, per the request from City of Bakersfield Staff, for the proposed development at 9203 South H Street in the City of Bakersfield. The City of Bakersfield, as well as Kern County, have not finalized or adopted specific policies or methodologies for VMT at this time. Therefore, this VMT assessment is based on State of California's Office of Planning and Research (OPR) Technical Advisory (April 2018), as well as on VMT guidance from neighboring local jurisdictions.

Project Description

The applicant proposes a development consisting of a 33,978-SF 4-story building with 135,912 SF of gross leasable floor area, a 36,977-SF building, and a 32,421-SF building to provide accommodations for mini-storage, warehousing, and U-Haul truck rental services. The existing site is vacant. Ingress and egress will be provided into the site via three unsignalized driveways located along South H Street. The project site, in its regional setting, is shown on Figure 1. The site plan is shown on Figure 2.

Project Trip Generation

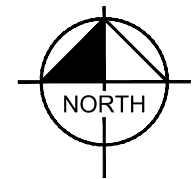
Daily and peak hour trips for the proposed project were calculated using the trip generation rates published in the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition (2021). Trip rates are based on the following ITE Land Use Category:

- LU 151 – Mini-Warehouse

The resulting trip rates and the project trip generation estimates are shown on Table 1. The project is estimated to generate approximately 19 trips in the morning peak hour (11 inbound, 8 outbound) and 30 trips in the evening peak hour (14 inbound, 16 outbound), with 298 vehicle trips on a daily basis.



FIGURE 1
VICINITY MAP



NOT TO SCALE

TABLE 1 SUMMARY OF PROJECT TRIP GENERATION									
Land Use	ITE Code	Unit	Trip Generation Rates ¹						
			Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Mini-Warehouse	151	KSF	1.45	0.053	0.037	0.09	0.071	0.080	0.15
Trip Generation Estimates									
Land Use	Quantity	Unit	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Mini-Warehouse	205.310	KSF	298	11	8	19	14	16	30
Total Project Trips			298	11	8	19	14	16	30
¹ Source: Institute of Transportation Engineers (ITE) <u>Trip Generation Manual</u> , 11 th Edition									

VEHICLE MILES TRAVELED (VMT) ASSESSMENT

Senate Bill 743 (SB 743) was approved by California legislature in September 2013. SB 743 requires changes to California Environmental Quality Act (CEQA), specifically directing the Governor’s Office of Planning and Research (OPR) to develop alternative metrics to the use of vehicular “Level of Service” (LOS) for evaluating transportation projects. OPR has prepared a technical advisory (“OPR Technical Advisory”) for evaluating transportation impacts in CEQA and has recommended that Vehicle Miles Traveled (VMT) replace LOS as the primary measure of transportation impacts. The Natural Resources Agency has adopted updates to CEQA Guidelines to incorporate SB 743 that requires VMT for the purposes of determining a significant transportation impact under CEQA. Additionally, in the absence of City and County-specific guidelines regarding VMT for this project, SB 743 guidelines published by Tulare County were referenced due to the proximity of Bakersfield to the county boundary and shared local characteristics. Local conditions identified in the Tulare County guidelines are more reflective of the demographics of the area rather than the statewide OPR guidance.

Both the OPR and the Tulare County SB 743 Guidelines (June 2020) provide details on appropriate screening thresholds that can be used to identify when a proposed land development project is anticipated to result in a less-than-significant impact without conducting a more detailed level analysis. Tulare County has further expanded upon the State’s screening criteria by adding additional conditions that are tailored specifically to the locale and has indicated that some projects are small enough to be presumed to have a less-than-significant transportation impact. Projects generating fewer than 500 daily trips meet these criteria. This screening criteria is supported by documentation

provided within Tulare County SB 743 Guidelines (June 2020), which has been included within the Appendix to this memorandum.

FINDINGS AND CONCLUSIONS

Based on the project's anticipated trip generation characteristics and on the VMT thresholds noted in this traffic memorandum, the proposed project is presumed to have a less-than-significant VMT impact based on its small size. The project will generate 298 daily trips, which does not exceed the 500-trip threshold established for jurisdictions in the area. No further analysis is anticipated.

APPENDIX

SCREENING CRITERIA AND THRESHOLD EVIDENCE

This appendix provides context and evidence for the screening criteria and threshold evidence included in Chapters 3 for Land Development Projects, Chapter 4 for Update of the General Plan and Community plans, and Chapter 5 for Transportation Projects.

Screening Criteria

Certain types of development projects are presumed to have less than significant impacts to the transportation system, and therefore would not be required to conduct a VMT analysis if any of the following criteria (that is, small projects, local-serving retail and similar uses, local-serving public facilities, affordable housing, and redevelopment projects that results in less VMT) are established, based on substantial evidence.

Small Projects

Small projects, which are whole projects with independent utility that would generate less than 500 average daily vehicle trips (ADT), would also not result in significant transportation impacts on the transportation system:

Evidence – Traffic impact analysis conducted using level of service and delay as a performance measure has traditionally used minimum values for projects that are considered large enough that an analysis is required to determine whether the project has CEQA transportation impacts. In many agencies, these minimum project sizes are documented in an agency’s traffic impact study guidelines. Although some agencies are carrying the small project size threshold forward from level of service and delay-based analyses to VMT analyses, Tulare County does not have published traffic impact study guidelines. In order to establish a minimum project size for which a project is required to conduct a VMT analysis, current minimum project sizes for VMT analysis were gathered from statewide sources as shown in Table B-1. Of the agencies listed in the table, The Sacramento region and the San Diego region stand out as jurisdictions that include rural areas such as Tulare County. The Sacramento region uses VMT specific to the region and this is considered less applicable to Tulare County than the San Diego minimum project size which is based on previous experience in conducting transportation analyses for CEQA. Of the two values listed for the San Diego region, the value of 500 ADT (i.e. 500 daily trips) for projects inconsistent with the General Plan is considered to be more applicable to Tulare County. This is because the value of 1,000 ADT for projects consistent with the General Plan is based on individual projects in the San Diego region comparing level of service and delay-based analyses with a General Plan specific to their location. However, the value of 500 ADT for projects inconsistent with the General Plan fits the situation of VMT analyses conducted in Tulare County since no previous VMT analysis will have been conducted on a project basis. Therefore, absent substantial evidence otherwise, it is reasonable to conclude that the addition of 500 or fewer daily trips could be considered not to lead to a significant impact. It should be noted that consistency with the General Plan for the purpose of this discussion means that the proposed project would be anticipated to generate equal to or fewer trips than the land use designated in the General Plan.

Local-Serving Retail and Similar Uses

Local-serving retail is defined in Tulare County as any retail development, regardless of size, that is anticipated to serve local customers. These types of developments would reduce trip lengths (and therefore VMT) by offering

Table B-1
Sample Minimum Project Size Requirements for SB 743 Analysis

Agency	Minimum Project Size	Basis for Determination
City of San Jose	Based on OPR Technical Advisory but stated in terms of sq. ft.	OPR Technical Advisory
City of Elk Grove	10 d.u. or 50,000 sq.ft. commercial	N/A
Sacramento Area Council of Governments	237 ADT	Statistical analysis of regional VMT data
City of Los Angeles	250 ADT	N/A
City of Pasadena	10 d.u./10,000 sq.ft. commercial/300 ADT	N/A
City of San Diego	Based on OPR guidelines but using local trip generation. Result is 300 ADT.	Based on OPR guidelines but using local trip generation. Result is 300 ADT.
City of Fresno	500 ADT	Comparison to greenhouse gas emissions thresholds
San Diego Region	500 ADT (for projects inconsistent with the General Plan)	Previous Traffic Impact Study Guidelines
San Diego Region	1,000 ADT (for projects consistent with the General Plan)	Previous Traffic Impact Study Guidelines

additional retail choices allowing customers to make shorter trips than they would make to more distant retail developments. This would apply to retail developments intended to serve customers in the immediate area (such as a convenience store located in a rural area). It would also apply to retail developments that would serve customers in located anywhere in the unincorporated area or Tulare County, as long as the project would reduce the need for travel to more remote retail developments in adjacent counties.

Evidence – The OPR Technical Advisory provides that “because new retail development typically redistributes shopping trips rather than creating new trips, estimating the total change in VMT (i.e., the difference in total VMT in the area affected with and without the project) is the best way to analyze a retail project’s transportation impacts.” Local serving retail generally shortens trips as longer trips from regional retail are redistributed to new local retail.

Local-Serving Public Facilities

Similar to local-serving retail, local-serving public facilities such as schools, government offices, medical offices, and parks serve the community and either produce very low VMT or divert existing trips from established local facilities.

Evidence – Similar to local serving retail, local serving public facilities would redistribute trips and would not create new trips. Thus, similar to local serving retail, trips are generally shortened as longer trips from a regional facility are redistributed to the local serving public facility. The evidence from the OPR Technical Advisory described above also applies to local-serving public facilities.

Affordable Housing Projects

Residents of affordable residential projects typically generate less VMT than residents in market rate residential projects. In recognition of this effect, and in accordance with the OPR Technical Advisory, deed-restricted affordable housing projects meet the region’s screening criteria and would not require a VMT analysis.

Projects that provide affordable housing affordable to persons with a household income equal to or less than 50 percent of the area median income as defined by California Health and Safety Code Section 50093, housing for senior citizens (as defined in Section 143.0720(e)), housing for transitional foster youth, disabled veterans, or homeless persons (as defined in 143.0720(f)) are not required to complete a VMT analysis.

Evidence –Affordable residential projects generate fewer trips than market rate residential projects. This supports the assumption that the rate of vehicle ownership is anticipated to be less for persons that qualify for affordable housing. Additionally, senior citizens, transitional foster youth, disabled veterans, and homeless individuals also have low vehicle ownership rates.

Redevelopment Projects That Result in a Net Reduction in VMT

A redevelopment project that demonstrates that the total project VMT is less than the existing land use’s total VMT is not required to complete a VMT analysis. For the purposes of VMT analysis, a redevelopment project is defined as a land development project that is proposed for a project site that already is developed as opposed to a project that is proposed to be built on a project site that is vacant.

Evidence – Consistent with the OPR Technical Advisory, “[w]here a project replaces existing VMT-generating land uses, if the replacement leads to a net overall decrease in VMT, the project would lead to a less-than-significant transportation impact. If the project leads to a net overall increase in VMT, then the thresholds described above should apply.”

Thresholds

If a project is required to complete a VMT analysis, the project’s impacts to the transportation system would be significant if the VMT would exceed the average VMT/capita or VMT/employee of the traffic analysis zone (TAZ) in which the project is located.

Residential Projects

Threshold – below average household VMT/capita in the TAZ where the project is located.

Evidence – The OPR Technical Advisory recommends the use of VMT/capita as the performance measure for VMT analysis of residential projects. It provides specific recommendations for numerical thresholds to be used on a statewide basis, but also includes the following statement: “In rural areas of non-MPO counties (i.e., areas not near established or incorporated cities or towns), fewer options may be available for reducing VMT, and significance thresholds may be best determined on a case-by-case basis. Note, however, that clustered small towns and small town main streets may have substantial VMT benefits compared to isolated rural development, similar to the transit oriented development described above.” Although Tulare County is an MPO county, these guidelines recommend the use of significance thresholds developed for the local characteristics of small town and rural areas of Tulare County. These guidelines extend the concept of rural guidelines in non-MPO counties developed on a case by case basis to the unincorporated area of Tulare County that may not be considered rural by other definitions. For the purpose of VMT analysis, the same characteristics of rural areas of non-MPO counties mentioned by OPR apply to all of Tulare County. These include lack of a high concentration of transit, pedestrian, and bicycle facilities and a high degree of reliance on the automobile mode for basic transportation. However, these guidelines acknowledge the VMT benefits of providing transit, bicycle, and pedestrian improvements in small towns and small town main streets by encouraging the use of these types of improvements as mitigation measures.

Office/Employment Projects

Threshold – below average VMT/employee in the TAZ where the project is located.

Evidence – See evidence provided above for residential projects.

Transportation Project Screening Criteria

This section provides a list of transportation projects that are presumed to have a less than significant impact; and therefore, would not be require a VMT analysis. In addition, information is provided on significance thresholds for projects that would require a VMT analysis.

Consistent with OPR’s Technical Advisory, project types that would not result in increased vehicle travel have, by the very nature of the project, a less than significant impact and can be screened out from conducting a VMT analysis. These types of projects include, but are not limited to:

- Rehabilitation/maintenance projects intended to maintain transportation facilities that do not add motor vehicle capacity or an increase of VMT
- Addition of bicycle facilities (i.e., Class I, II, or III facilities and bicycle parking).
- Intersection traffic signal improvements/turn-lane configuration changes
- Additional capacity on local/collector streets if conditions are substantially improved for active transportation modes
- Installation of roundabouts and other traffic calming devices

The following specific project types are presumed to have a less than significant impact to VMT:

- Rehabilitation, maintenance, replacement, safety, and repair projects designed to improve the condition of or replace existing transportation assets for example highways; roadways; bridges; culverts; etc.; that are structurally deficient or functionally obsolete (e.g., using Caltrans and/or County of Tulare criteria) to current engineering standards and that do not add additional motor vehicle capacity
- Roadside safety devices or hardware installation such as median barriers and guardrails
- Roadway shoulder enhancements to provide “breakdown space,” dedicated space for use only by transit vehicles, to provide bicycle access, or to otherwise improve safety, but which will not be used as automobile vehicle travel lanes
- Addition of an auxiliary lane of less than one mile in length designed to improve roadway safety
- Installation, removal, or reconfiguration of traffic lanes that are not for through traffic, such as left, right, and U-turn pockets, two-way left turn lanes, or emergency breakdown lanes that are not utilized as through lanes
- Addition of roadway capacity on local or collector streets provided the project also substantially improves conditions for pedestrians, cyclists, and, if applicable, transit
- Conversion of existing general purpose lanes (including ramps) to managed lanes or transit lanes, or changing lane management in a manner that would not increase vehicle travel
- Addition of a new lane that is permanently restricted to use only by transit vehicles
- Reduction in number of through lanes
- Timing of signals to optimize vehicle, bicycle, or pedestrian flow
- Installation of roundabouts or traffic circles
- Initiation of new transit service

- Rehabilitation and maintenance projects that do not add motor vehicle capacity
- Addition of new or enhanced bike or pedestrian facilities on existing streets/highways or within existing public rights-of-way
- Installation of publicly available alternative fuel/charging infrastructure
- Addition of passing lanes, truck climbing lanes, or truck brake-check lanes in rural areas that do not increase overall vehicle capacity along the corridor

Evidence – The list above is consistent with recommendations in the OPR Technical Advisory that indicates projects that can be presumed to have a less than significant impact on VMT due to overall project characteristics.

Threshold

For transportation projects, significant impact occurs if the project results in a net increase in VMT as compared with the level of VMT anticipated to occur through implementation of the Transportation and Circulation Element of the General Plan or Community Plan. In practice, this means that projects included in the Transportation and Circulation Element would have a less than significant VMT impact and VMT-increasing projects that are not included in the Transportation and Circulation Element would have a significant impact. Projects that replace a project in the Transportation and Circulation Element would have a significant impact if they would be anticipated to generate more VMT than the project they are replacing.

Evidence – OPR’s Technical Advisory does not have a recommended threshold for transportation projects and leaves this determination up to lead agencies. It is more applicable and appropriate that a VMT analysis for roadway projects is considered at a planning level when developing regional or agency-specific transportation plans. The transportation plan for the region or agency is developed in consideration of the need to reduce vehicle miles traveled and the plan provides a coordinated effort to achieve this goal. Projects approved at the planning level support regional or agency-specific goals with respect to VMT. In Tulare County, the relevant transportation plans are the Regional Transportation Plan/Sustainable Communities Strategies prepared by the Tulare County Association of Governments and the Transportation and Circulation Element of the General Plan prepared by Tulare County.

Kim, Thomas

From: Jaime, Kim
Sent: Thursday, March 3, 2022 4:41 PM
To: Kim, Thomas
Subject: FW: Will - Serve Request

FYI

Kim Jaime

Kimley-Horn | 1100 Town and Country Road, Suite 700, Orange, CA 92868

Main: 714-939-1030 | Direct: 657-208-6112

Connect with us: [Twitter](#) | [LinkedIn](#) | [Facebook](#) | [Instagram](#) | [Kimley-Horn.com](#)

From: Nick Cooper <ncooper@greenfieldcwg.org>
Sent: Tuesday, February 22, 2022 3:58 PM
To: Jaime, Kim <Kim.Jaime@kimley-horn.com>
Subject: Re: Will - Serve Request

You don't often get email from ncooper@greenfieldcwg.org. [Learn why this is important](#)

Hi Kim,

No forms at this moment. But here is some extra information you will need after a will-serve is granted. . See below.

Deposit

The District will request an initial \$1500 to \$10,000 deposit to cover the costs incurred by the District in connection with your project. Such costs include, but are not limited to, engineering fees, plan check fees, legal fees, inspections fees and filing fees. The deposit will be credited toward your account. Any unused portion of the deposit will be refunded. If the district's cost exceeds the deposit amount, more deposit money will be requested to continue working on your project.

Connection Fees

Connection fees will need to be paid before serving water. Current connection fee is **\$6066.00** per EDU (Equivalent Dwelling Unit). We review connection fees annually and they may increase.

District Standards

I have attached the District Standards for Construction

Water System Extension Agreement.

Depending on the exact location of your project, a water main may not be nearby. But there is a developer planning on installing a main from Taft Hwy, north to McKee Rd. If your parcel parallels this main and you do connect to this main, your project will be required to pay a percentage of the cost of the developed main that is required per their Water System Extension Agreement. Agreement is in the process and cost are not known at this time.

Hopefully this information is helpful.

 [GCWD Standards.pdf](#)

--

Thank you,

Nick Cooper

General Manager

Office: 661-831-0989

Cell: 661-301-3823

<https://greenfieldwater.specialdistrict.org/>



Kim, Thomas

From: Jaime, Kim
Sent: Thursday, March 3, 2022 4:43 PM
To: Kim, Thomas
Subject: FW: Will - Serve Request

This is the last email I received from him.

Kim Jaime

Kimley-Horn | 1100 Town and Country Road, Suite 700, Orange, CA 92868

Main: 714-939-1030 | Direct: 657-208-6112

Connect with us: [Twitter](#) | [LinkedIn](#) | [Facebook](#) | [Instagram](#) | [Kimley-Horn.com](#)

From: Nick Cooper <ncooper@greenfieldcwd.org>
Sent: Thursday, March 3, 2022 2:40 PM
To: Jaime, Kim <Kim.Jaime@kimley-horn.com>
Subject: Re: Will - Serve Request

Hello Kim,

Thank you for your request.

One question, What is the maximum annual anticipated water demand both domestic and landscaping?

To answer your question regarding a water main on South H Street to Taft hwy:

A developer located on the Northeast corner of South H Street and Taft Hwy is planning on extending the water main from Taft Hwy to the existing water main just north of your parcel. Also, the developer is working with our District on a Main Line Extension Agreement in which each parcel that connects to this main will have to reimburse a portion of the cost back to them. Cost and date of completion of this water main are not known at this time.

Thank you,
Nick Cooper
General Manager
Office: 661-831-0989
Cell: 661-301-3823

<https://greenfieldwater.specialdistrict.org/>





U-Haul Bakersfield

Preliminary Hydrology and Hydraulics Report

APN 514-060-05

9407 South H Street

Bakersfield, CA 93313

Prepared for:

U-Haul/Amerco Real Estate

2727 N. Central Avenue

Phoenix, AZ 85004

Prepared By:

Kimley»»Horn

Kimley-Horn and Associates, Inc.

1100 W. Town and Country Road, Suite 700

Orange, CA 92868

February 2022

INTRODUCTION

The scope of the Project is to complete a preliminary hydrology and hydraulic analysis for the storm drain improvements associated with the proposed U-Haul project in Bakersfield, CA. The Project is located at 9407 South H Street on a vacant lot consisting of natural landscaped cover. The Project consists of 3 proposed buildings for commercial storage, maintenance, and warehousing purposes. Other project activities will also include utility improvements and parking areas and driveways redevelopment. The total project makes up approximately 11.23 acres.

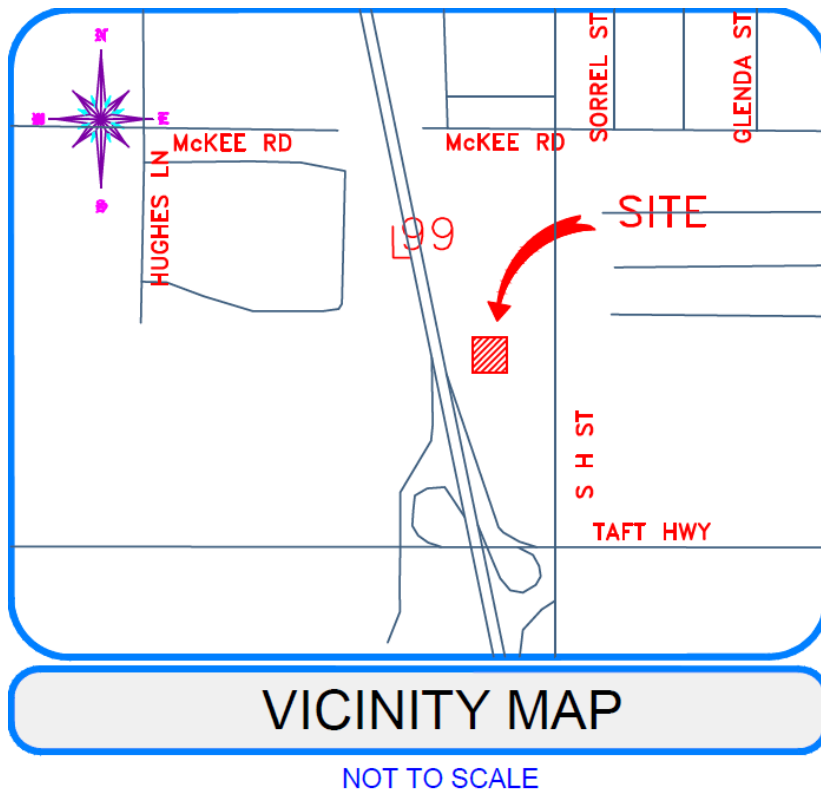


Figure 1: U-Haul Bakersfield Location

HYDROLOGY

The preliminary hydrology and hydraulic analyses were completed in accordance with the Kern County Hydrology Manual. A rational method analysis in accordance with the Manual was completed to calculate the peak discharges for existing conditions and project conditions. A review of the Geotechnical Investigation Report dated February 23, 2022 prepared by Ninyo & Moore found that subsurface soils at the site consisted of moist, medium dense, sandy silt alluvium underlain by medium dense, poorly-graded sand with silt. Additionally, preliminary infiltration tests showed that the soils have low to moderate infiltration rates. Soil group A is defined as soils having high infiltration rates (low runoff potential) and was used to calculate the soil loss rates.

Per the Kern County Hydrology Manual, antecedent moisture condition (AMC) of 2 was used for the 100-year storm event. The land use for the project is commercial which has an impervious range percent between 80-100%. Storm depths from NOAA 14 were used for the analyses. The Advance Engineering Software (AES) Hydrosoft package was used to complete the rational method analysis.

Under existing conditions, the project discharges to a local low point to the east of the site, adjacent to South H Street. Runoff is expected to ultimately run off and discharge southerly into South H Street.

For proposed conditions, the project area was divided into three drainage areas (A-C). Each drainage area was then subdivided for the rational method calculations. Drainage area A consists of on-site runoff, which routes into a proposed parking lot inlet. Drainage area B consists of on-site runoff, which routes into two proposed parking lot inlets. Drainage area C consists of on-site runoff, which routes into a proposed parking lot inlet. Drainage area D consists of on-site runoff, which routes into a proposed parking lot inlet. The remaining 4.19 acres denoted as Drainage area E of the proposed project will be routed to a proposed detention basin near the south boundary of the site via proposed onsite storm drain systems. The outlet from the detention basin will be limited to existing conditions flow rates or lower via an overflow concrete weir structure on the southeast corner of the basin prior to discharging into the public right-of-way.

No offsite flows will be accepted as part of the proposed conditions. Hydrology maps and results for existing and proposed conditions are included in Appendix A.

HYDRAULICS

Storm Drain and Detention Basin Hydraulic Calculations

Hydraulic calculations for sizing storm drain were completed using Manning's equation. Each proposed storm drain lateral has been sized in AES will be able to convey the 100-year peak flow. Each storm drain line will discharge to a main lateral which will discharge to the onsite detention basin.

The unit hydrograph for the proposed project was completed using CIVILD software. The basin routing analysis was completed with Bentley PondPack, which uses the Modified-Puls method for flow-through basin analysis. Routing analysis results for the detention basin showed that the maximum water surface depth during the 100-year, 24-hour storm event was 5.82 feet. The total volume detained was 2.34 ac-ft. In addition, the peak outflow from the basin (1.63 cfs) was less than the existing conditions 100-year, 24-hour peak flow (1.70 cfs).

The outlet from the detention basin will discharge via a riser with an orifice and rectangular notch weir to limit the flows similar to existing conditions. The storm drain and basin routing calculations are included in Appendix B.

APPENDIX A: HYDROLOGY ANALYSIS



NOAA Atlas 14, Volume 6, Version 2
Location name: Bakersfield, California, USA*
Latitude: 35.2714°, Longitude: -119.0224°
Elevation: 351.47 ft**



* source: ESRI Maps
 ** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Tryppaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

[PF_tabular](#) | [PF_graphical](#) | [Maps_&_aerials](#)

PF tabular

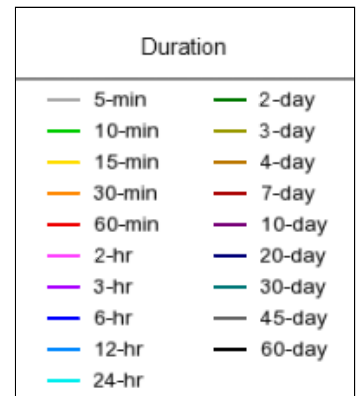
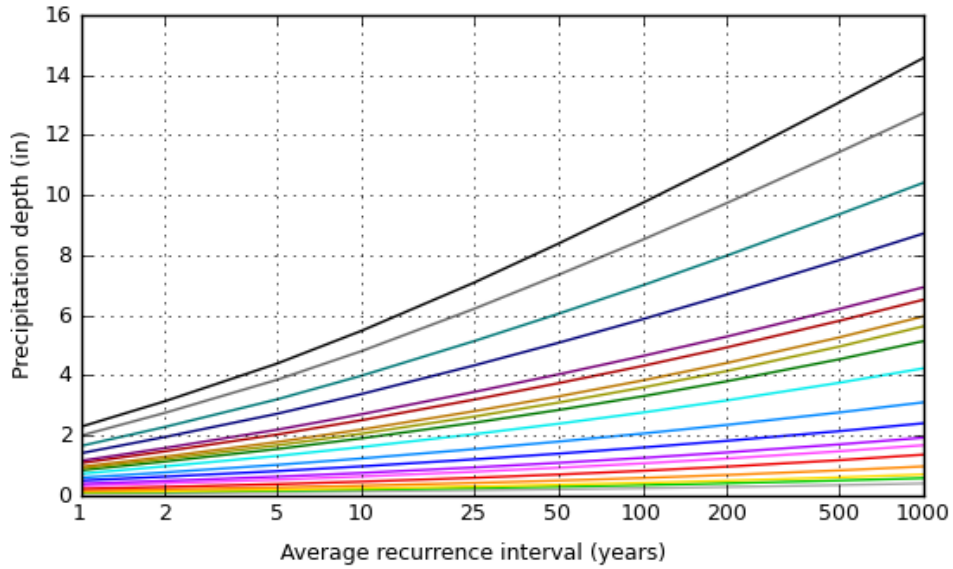
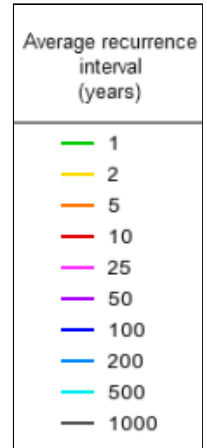
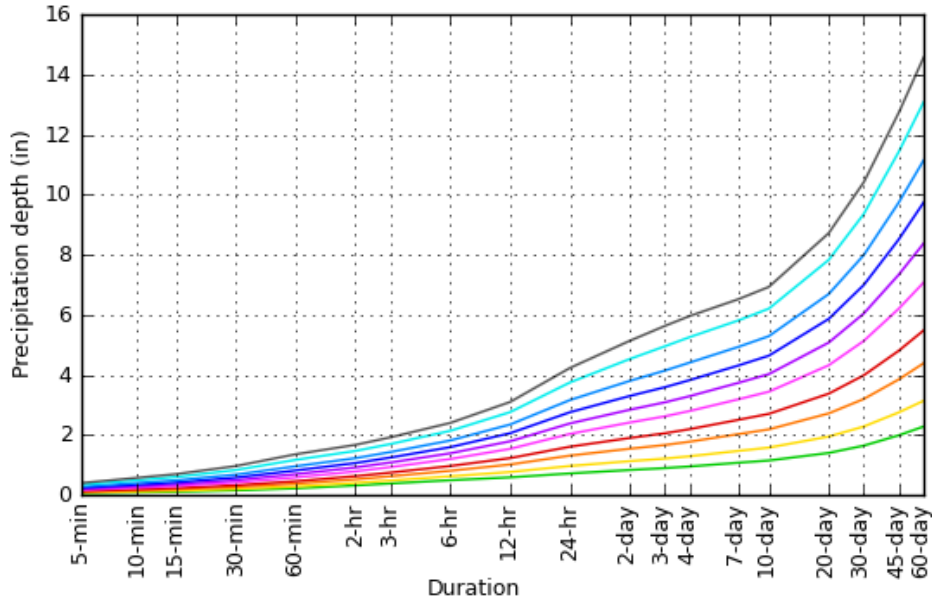
PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.069 (0.055-0.086)	0.087 (0.070-0.110)	0.115 (0.092-0.145)	0.140 (0.111-0.177)	0.178 (0.137-0.232)	0.210 (0.160-0.280)	0.247 (0.184-0.336)	0.289 (0.209-0.402)	0.352 (0.246-0.509)	0.408 (0.276-0.608)
10-min	0.099 (0.079-0.124)	0.125 (0.101-0.157)	0.165 (0.132-0.207)	0.200 (0.159-0.254)	0.254 (0.197-0.332)	0.301 (0.229-0.401)	0.354 (0.263-0.481)	0.414 (0.300-0.576)	0.505 (0.352-0.730)	0.584 (0.396-0.871)
15-min	0.119 (0.096-0.150)	0.151 (0.122-0.190)	0.199 (0.160-0.251)	0.242 (0.193-0.307)	0.308 (0.238-0.402)	0.364 (0.277-0.485)	0.428 (0.318-0.582)	0.500 (0.363-0.697)	0.610 (0.426-0.882)	0.706 (0.478-1.05)
30-min	0.164 (0.132-0.206)	0.209 (0.168-0.262)	0.274 (0.220-0.345)	0.334 (0.266-0.423)	0.424 (0.328-0.554)	0.502 (0.382-0.668)	0.590 (0.439-0.802)	0.690 (0.500-0.961)	0.841 (0.588-1.22)	0.974 (0.660-1.45)
60-min	0.231 (0.186-0.289)	0.293 (0.236-0.368)	0.385 (0.309-0.484)	0.468 (0.373-0.593)	0.595 (0.460-0.777)	0.705 (0.535-0.937)	0.828 (0.615-1.13)	0.967 (0.701-1.35)	1.18 (0.824-1.71)	1.37 (0.925-2.04)
2-hr	0.330 (0.266-0.414)	0.413 (0.332-0.518)	0.532 (0.427-0.670)	0.638 (0.508-0.809)	0.796 (0.616-1.04)	0.929 (0.705-1.24)	1.07 (0.798-1.46)	1.24 (0.896-1.72)	1.48 (1.03-2.13)	1.68 (1.14-2.50)
3-hr	0.394 (0.317-0.494)	0.493 (0.397-0.619)	0.634 (0.508-0.797)	0.757 (0.603-0.960)	0.939 (0.727-1.23)	1.09 (0.829-1.45)	1.26 (0.934-1.71)	1.44 (1.04-2.01)	1.71 (1.19-2.47)	1.93 (1.31-2.88)
6-hr	0.503 (0.405-0.631)	0.634 (0.510-0.796)	0.817 (0.656-1.03)	0.976 (0.778-1.24)	1.21 (0.935-1.58)	1.40 (1.06-1.86)	1.60 (1.19-2.18)	1.83 (1.32-2.54)	2.15 (1.50-3.10)	2.41 (1.63-3.59)
12-hr	0.598 (0.482-0.750)	0.776 (0.625-0.975)	1.03 (0.823-1.29)	1.24 (0.987-1.57)	1.55 (1.20-2.02)	1.80 (1.37-2.39)	2.07 (1.54-2.81)	2.36 (1.71-3.28)	2.77 (1.93-4.00)	3.11 (2.10-4.63)
24-hr	0.729 (0.663-0.819)	0.977 (0.887-1.10)	1.32 (1.20-1.49)	1.62 (1.45-1.84)	2.04 (1.76-2.42)	2.39 (2.02-2.90)	2.77 (2.27-3.44)	3.17 (2.52-4.07)	3.76 (2.85-5.06)	4.24 (3.09-5.93)
2-day	0.843 (0.766-0.946)	1.14 (1.03-1.28)	1.55 (1.40-1.75)	1.91 (1.71-2.17)	2.42 (2.09-2.87)	2.85 (2.40-3.45)	3.31 (2.71-4.12)	3.81 (3.02-4.89)	4.54 (3.44-6.11)	5.14 (3.75-7.20)
3-day	0.906 (0.824-1.02)	1.22 (1.11-1.37)	1.67 (1.52-1.89)	2.06 (1.85-2.35)	2.63 (2.27-3.11)	3.09 (2.61-3.75)	3.60 (2.95-4.48)	4.15 (3.29-5.33)	4.96 (3.76-6.68)	5.64 (4.11-7.89)
4-day	0.961 (0.873-1.08)	1.30 (1.18-1.46)	1.79 (1.62-2.01)	2.20 (1.97-2.51)	2.81 (2.42-3.32)	3.30 (2.78-4.00)	3.83 (3.14-4.77)	4.42 (3.51-5.68)	5.26 (3.99-7.09)	5.97 (4.35-8.35)
7-day	1.08 (0.986-1.22)	1.48 (1.34-1.66)	2.03 (1.84-2.29)	2.51 (2.25-2.86)	3.19 (2.75-3.77)	3.74 (3.15-4.53)	4.32 (3.54-5.37)	4.93 (3.92-6.34)	5.81 (4.41-7.83)	6.52 (4.75-9.13)
10-day	1.16 (1.05-1.30)	1.59 (1.44-1.79)	2.19 (1.99-2.47)	2.71 (2.43-3.09)	3.45 (2.97-4.08)	4.03 (3.40-4.88)	4.64 (3.81-5.78)	5.29 (4.20-6.80)	6.21 (4.71-8.36)	6.93 (5.05-9.71)
20-day	1.41 (1.28-1.58)	1.95 (1.77-2.20)	2.73 (2.47-3.07)	3.38 (3.03-3.85)	4.33 (3.73-5.12)	5.08 (4.28-6.15)	5.87 (4.81-7.31)	6.70 (5.32-8.61)	7.83 (5.93-10.5)	8.72 (6.36-12.2)
30-day	1.65 (1.50-1.85)	2.29 (2.08-2.57)	3.20 (2.90-3.61)	3.99 (3.58-4.55)	5.14 (4.43-6.07)	6.05 (5.10-7.32)	7.00 (5.73-8.71)	7.99 (6.34-10.3)	9.36 (7.09-12.6)	10.4 (7.59-14.6)
45-day	2.00 (1.81-2.24)	2.76 (2.50-3.10)	3.86 (3.49-4.35)	4.81 (4.31-5.48)	6.21 (5.36-7.34)	7.34 (6.18-8.89)	8.51 (6.98-10.6)	9.74 (7.73-12.5)	11.4 (8.66-15.4)	12.7 (9.28-17.8)
60-day	2.29 (2.08-2.57)	3.15 (2.86-3.54)	4.39 (3.98-4.96)	5.49 (4.92-6.25)	7.08 (6.11-8.37)	8.38 (7.06-10.1)	9.74 (7.98-12.1)	11.1 (8.85-14.3)	13.1 (9.91-17.6)	14.6 (10.6-20.4)

¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS). Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values. Please refer to NOAA Atlas 14 document for more information.

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PF graphical

PDS-based depth-duration-frequency (DDF) curves Latitude: 35.2714°, Longitude: -119.0224°



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Maps & aerials

Small scale terrain



Large scale terrain



Large scale map



Large scale aerial



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NOAA Atlas 14, Volume 6, Version 2
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PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches/hour)¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.828 (0.660-1.03)	1.04 (0.840-1.32)	1.38 (1.10-1.74)	1.68 (1.33-2.12)	2.14 (1.64-2.78)	2.52 (1.92-3.36)	2.96 (2.21-4.03)	3.47 (2.51-4.82)	4.22 (2.95-6.11)	4.90 (3.31-7.30)
10-min	0.594 (0.474-0.744)	0.750 (0.606-0.942)	0.990 (0.792-1.24)	1.20 (0.954-1.52)	1.52 (1.18-1.99)	1.81 (1.37-2.41)	2.12 (1.58-2.89)	2.48 (1.80-3.46)	3.03 (2.11-4.38)	3.50 (2.38-5.23)
15-min	0.476 (0.384-0.600)	0.604 (0.488-0.760)	0.796 (0.640-1.00)	0.968 (0.772-1.23)	1.23 (0.952-1.61)	1.46 (1.11-1.94)	1.71 (1.27-2.33)	2.00 (1.45-2.79)	2.44 (1.70-3.53)	2.82 (1.91-4.22)
30-min	0.328 (0.264-0.412)	0.418 (0.336-0.524)	0.548 (0.440-0.690)	0.668 (0.532-0.846)	0.848 (0.656-1.11)	1.00 (0.764-1.34)	1.18 (0.878-1.60)	1.38 (1.00-1.92)	1.68 (1.18-2.43)	1.95 (1.32-2.91)
60-min	0.231 (0.186-0.289)	0.293 (0.236-0.368)	0.385 (0.309-0.484)	0.468 (0.373-0.593)	0.595 (0.460-0.777)	0.705 (0.535-0.937)	0.828 (0.615-1.13)	0.967 (0.701-1.35)	1.18 (0.824-1.71)	1.37 (0.925-2.04)
2-hr	0.165 (0.133-0.207)	0.206 (0.166-0.259)	0.266 (0.214-0.335)	0.319 (0.254-0.404)	0.398 (0.308-0.520)	0.464 (0.352-0.618)	0.537 (0.399-0.730)	0.618 (0.448-0.862)	0.738 (0.516-1.07)	0.840 (0.568-1.25)
3-hr	0.131 (0.106-0.165)	0.164 (0.132-0.206)	0.211 (0.169-0.265)	0.252 (0.201-0.320)	0.313 (0.242-0.408)	0.364 (0.276-0.484)	0.419 (0.311-0.569)	0.480 (0.348-0.668)	0.568 (0.397-0.822)	0.642 (0.435-0.958)
6-hr	0.084 (0.068-0.105)	0.106 (0.085-0.133)	0.136 (0.110-0.172)	0.163 (0.130-0.207)	0.202 (0.156-0.263)	0.233 (0.177-0.311)	0.268 (0.199-0.364)	0.305 (0.221-0.425)	0.358 (0.250-0.518)	0.402 (0.273-0.600)
12-hr	0.050 (0.040-0.062)	0.064 (0.052-0.081)	0.085 (0.068-0.107)	0.103 (0.082-0.130)	0.128 (0.099-0.168)	0.149 (0.113-0.199)	0.172 (0.127-0.233)	0.196 (0.142-0.272)	0.230 (0.161-0.332)	0.258 (0.175-0.384)
24-hr	0.030 (0.028-0.034)	0.041 (0.037-0.046)	0.055 (0.050-0.062)	0.067 (0.060-0.077)	0.085 (0.074-0.101)	0.100 (0.084-0.121)	0.115 (0.094-0.143)	0.132 (0.105-0.170)	0.156 (0.119-0.211)	0.177 (0.129-0.247)
2-day	0.018 (0.016-0.020)	0.024 (0.021-0.027)	0.032 (0.029-0.036)	0.040 (0.036-0.045)	0.050 (0.044-0.060)	0.059 (0.050-0.072)	0.069 (0.056-0.086)	0.079 (0.063-0.102)	0.094 (0.072-0.127)	0.107 (0.078-0.150)
3-day	0.013 (0.011-0.014)	0.017 (0.015-0.019)	0.023 (0.021-0.026)	0.029 (0.026-0.033)	0.037 (0.032-0.043)	0.043 (0.036-0.052)	0.050 (0.041-0.062)	0.058 (0.046-0.074)	0.069 (0.052-0.093)	0.078 (0.057-0.110)
4-day	0.010 (0.009-0.011)	0.014 (0.012-0.015)	0.019 (0.017-0.021)	0.023 (0.021-0.026)	0.029 (0.025-0.035)	0.034 (0.029-0.042)	0.040 (0.033-0.050)	0.046 (0.037-0.059)	0.055 (0.042-0.074)	0.062 (0.045-0.087)
7-day	0.006 (0.006-0.007)	0.009 (0.008-0.010)	0.012 (0.011-0.014)	0.015 (0.013-0.017)	0.019 (0.016-0.022)	0.022 (0.019-0.027)	0.026 (0.021-0.032)	0.029 (0.023-0.038)	0.035 (0.026-0.047)	0.039 (0.028-0.054)
10-day	0.005 (0.004-0.005)	0.007 (0.006-0.007)	0.009 (0.008-0.010)	0.011 (0.010-0.013)	0.014 (0.012-0.017)	0.017 (0.014-0.020)	0.019 (0.016-0.024)	0.022 (0.018-0.028)	0.026 (0.020-0.035)	0.029 (0.021-0.040)
20-day	0.003 (0.003-0.003)	0.004 (0.004-0.005)	0.006 (0.005-0.006)	0.007 (0.006-0.008)	0.009 (0.008-0.011)	0.011 (0.009-0.013)	0.012 (0.010-0.015)	0.014 (0.011-0.018)	0.016 (0.012-0.022)	0.018 (0.013-0.025)
30-day	0.002 (0.002-0.003)	0.003 (0.003-0.004)	0.004 (0.004-0.005)	0.006 (0.005-0.006)	0.007 (0.006-0.008)	0.008 (0.007-0.010)	0.010 (0.008-0.012)	0.011 (0.009-0.014)	0.013 (0.010-0.017)	0.014 (0.011-0.020)
45-day	0.002 (0.002-0.002)	0.003 (0.002-0.003)	0.004 (0.003-0.004)	0.004 (0.004-0.005)	0.006 (0.005-0.007)	0.007 (0.006-0.008)	0.008 (0.006-0.010)	0.009 (0.007-0.012)	0.011 (0.008-0.014)	0.012 (0.009-0.016)
60-day	0.002 (0.001-0.002)	0.002 (0.002-0.002)	0.003 (0.003-0.003)	0.004 (0.003-0.004)	0.005 (0.004-0.006)	0.006 (0.005-0.007)	0.007 (0.006-0.008)	0.008 (0.006-0.010)	0.009 (0.007-0.012)	0.010 (0.007-0.014)

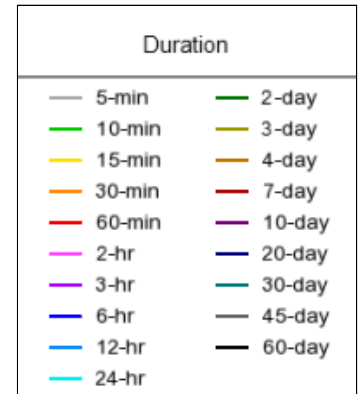
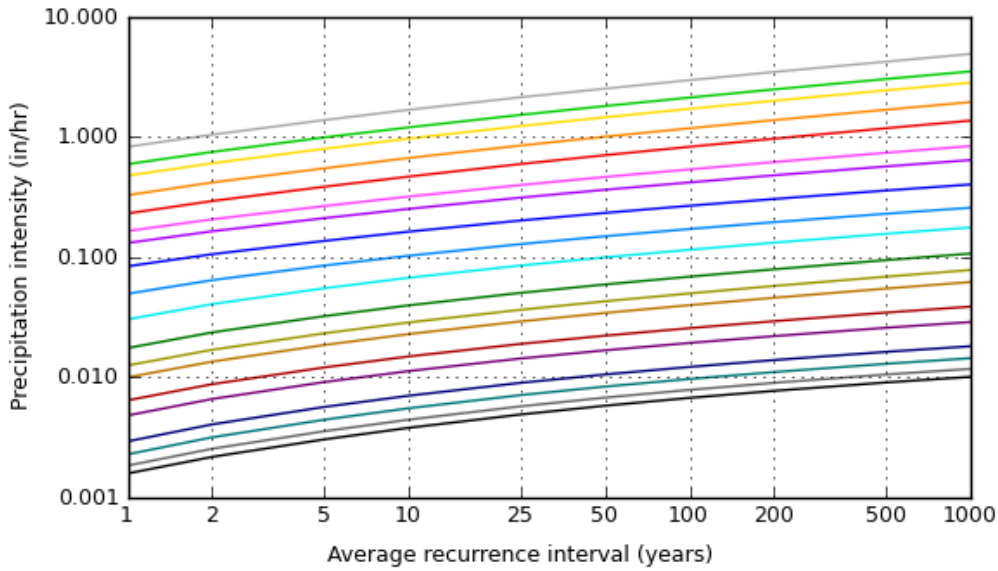
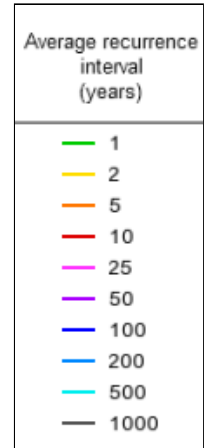
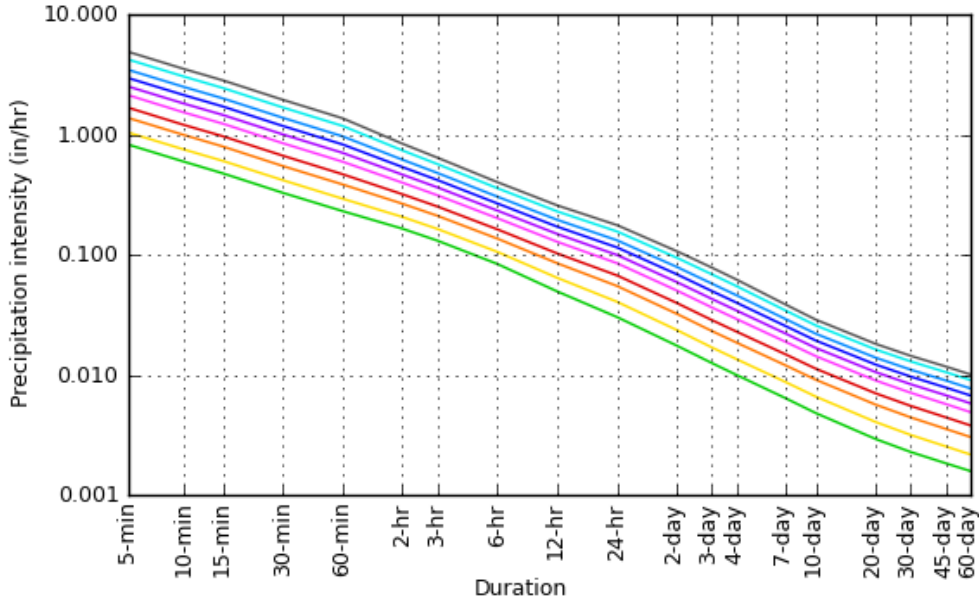
¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS). Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values. Please refer to NOAA Atlas 14 document for more information.

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PF graphical

PDS-based intensity-duration-frequency (IDF) curves

Latitude: 35.2714°, Longitude: -119.0224°



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Maps & aerials

Small scale terrain



Large scale terrain



Large scale map



Large scale aerial

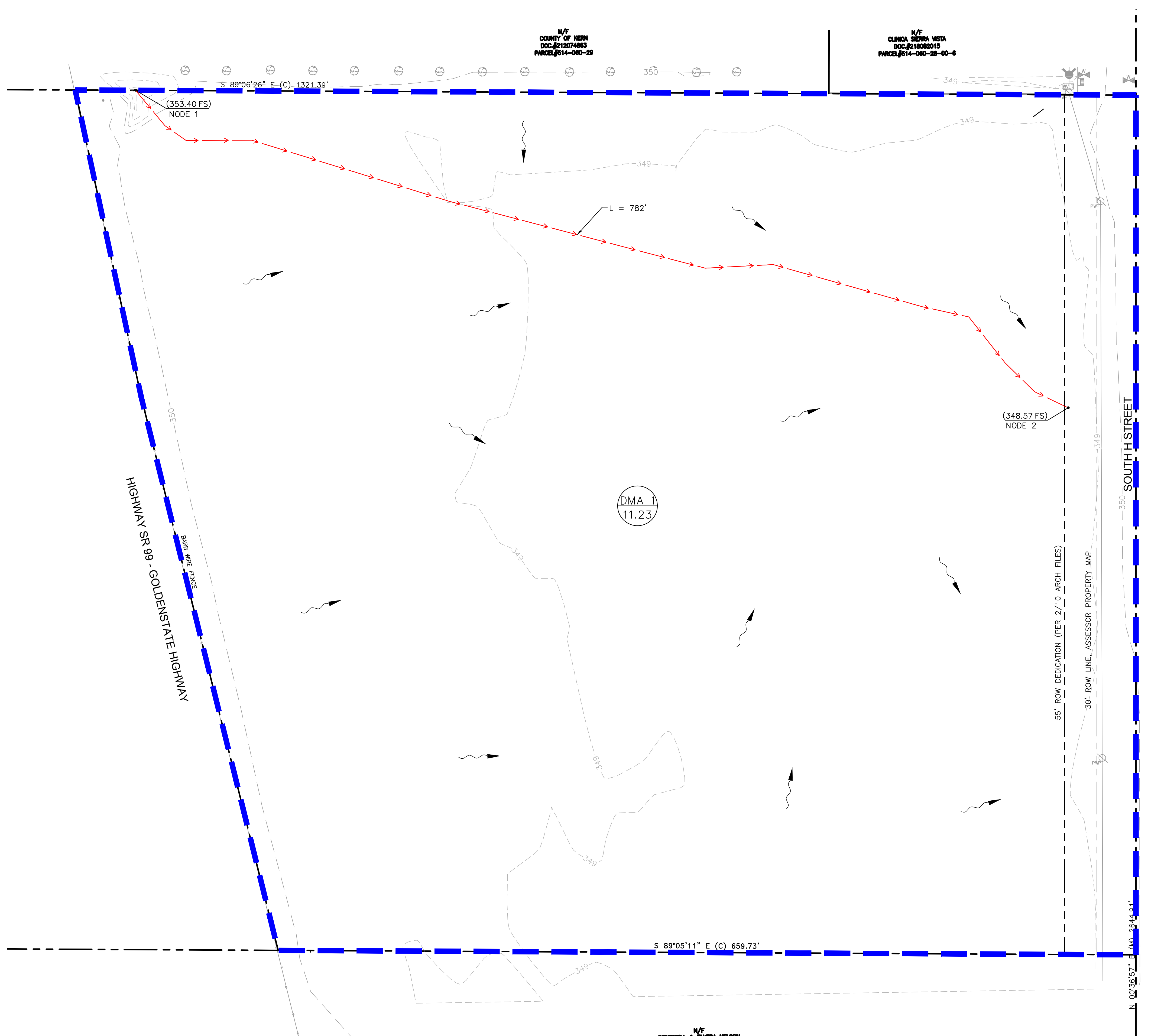


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Plotted By: Kim, Thomas Sheet Set: Kha Layout: PRE March 03, 2022 01:08:31pm K:\ORA_LDEV\U-Haul\XXXXXXXXXX - Bakersfield\CADD\Exhibits\Pre-Conditions Hydrology Exhibit.dwg
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LEGEND

- PROPERTY LINE
- EXISTING CONTOUR
- DA BOUNDARY
- DMA NAME
DMA AREA
- FLOW DIRECTION

DRAINAGE NOTES

- EXISTING CONDITION
Q₁₀₀ = 1.70 CFS

No.	REVISIONS	DATE	BY

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KHA PROJECT 194333008
DATE 3/3/22
SCALE AS SHOWN
DESIGNED BY AV
DRAWN BY AV
CHECKED BY TK

U-HAUL
BAKERSFIELD

9407 SOUTH H STREET, BAKERSFIELD, CA 93313

PRE-CONDITIONS
HYDROLOGY EXHIBIT

SHEET NUMBER

1

RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM PACKAGE
(Reference: 1991 KERN COUNTY HYDROLOGY CRITERION)
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Ver. 18.0 Release Date: 07/01/2011 License ID 1499

Analysis prepared by:

***** DESCRIPTION OF STUDY *****

* U-HAUL BAKERSFIELD *
* EXISTING CONDITIONS *
* 100 YR ANALYSIS *

FILE NAME: UHAULBKR.DAT
TIME/DATE OF STUDY: 17:22 02/23/2022

=====

USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:

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--*TIME-OF-CONCENTRATION MODEL*--

USER SPECIFIED STORM EVENT(YEAR) = 100.00
SPECIFIED MINIMUM PIPE SIZE(INCH) = 6.00
SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.95
USER-DEFINED TABLED RAINFALL USED

NUMBER OF [TIME,INTENSITY] DATA PAIRS = 5

- 1) 5.00; 2.960
- 2) 10.00; 2.120
- 3) 30.00; 1.180
- 4) 60.00; 0.828
- 5) 180.00; 0.419

ANTECEDENT MOISTURE CONDITION (AMC) II ASSUMED FOR RATIONAL METHOD

USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL

NO.	HALF- WIDTH (FT)	CROWN TO CROSSFALL (FT)	STREET-CROSSFALL: IN- / OUT- / PARK- SIDE / SIDE / WAY	CURB HEIGHT (FT)	GUTTER-GEOMETRIES: WIDTH LIP HIKE (FT) (FT) (FT)	MANNING FACTOR (n)
1	30.0	20.0	0.018/0.018/0.020	0.67	2.00 0.0313 0.167	0.0150

GLOBAL STREET FLOW-DEPTH CONSTRAINTS:

- 1. Relative Flow-Depth = 0.00 FEET
as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
- 2. (Depth)*(Velocity) Constraint = 6.0 (FT*FT/S)

*SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*
*USER-SPECIFIED MINIMUM TOPOGRAPHIC SLOPE ADJUSTMENT NOT SELECTED

FLOW PROCESS FROM NODE 1.00 TO NODE 2.00 IS CODE = 21

>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
>>USE TIME-OF-CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA<<

=====

INITIAL SUBAREA FLOW-LENGTH(FEET) = 782.00
ELEVATION DATA: UPSTREAM(FEET) = 353.40 DOWNSTREAM(FEET) = 348.57

$T_c = K * [(LENGTH^{**} 3.00) / (ELEVATION CHANGE)]^{**0.20}$

SUBAREA ANALYSIS USED MINIMUM T_c (MIN.) = 37.149

* 100 YEAR RAINFALL INTENSITY(INCH/HR) = 1.096

SUBAREA T_c AND LOSS RATE DATA(AMC II):

DEVELOPMENT TYPE/ LAND USE	SCS SOIL GROUP	AREA (ACRES)	Fp (INCH/HR)	Ap (DECIMAL)	SCS CN	Tc (MIN.)
NATURAL GOOD COVER "GRASS"	A	11.23	0.93	1.000	39	37.15

SUBAREA AVERAGE PERVIOUS LOSS RATE, F_p (INCH/HR) = 0.93

SUBAREA AVERAGE PERVIOUS AREA FRACTION, A_p = 1.000

SUBAREA RUNOFF(CFS) = 1.70

TOTAL AREA(ACRES) = 11.23 PEAK FLOW RATE(CFS) = 1.70

=====

END OF STUDY SUMMARY:

TOTAL AREA(ACRES) = 11.2 TC(MIN.) = 37.15

EFFECTIVE AREA(ACRES) = 11.23 AREA-AVERAGED F_m (INCH/HR) = 0.93

AREA-AVERAGED F_p (INCH/HR) = 0.93 AREA-AVERAGED A_p = 1.000

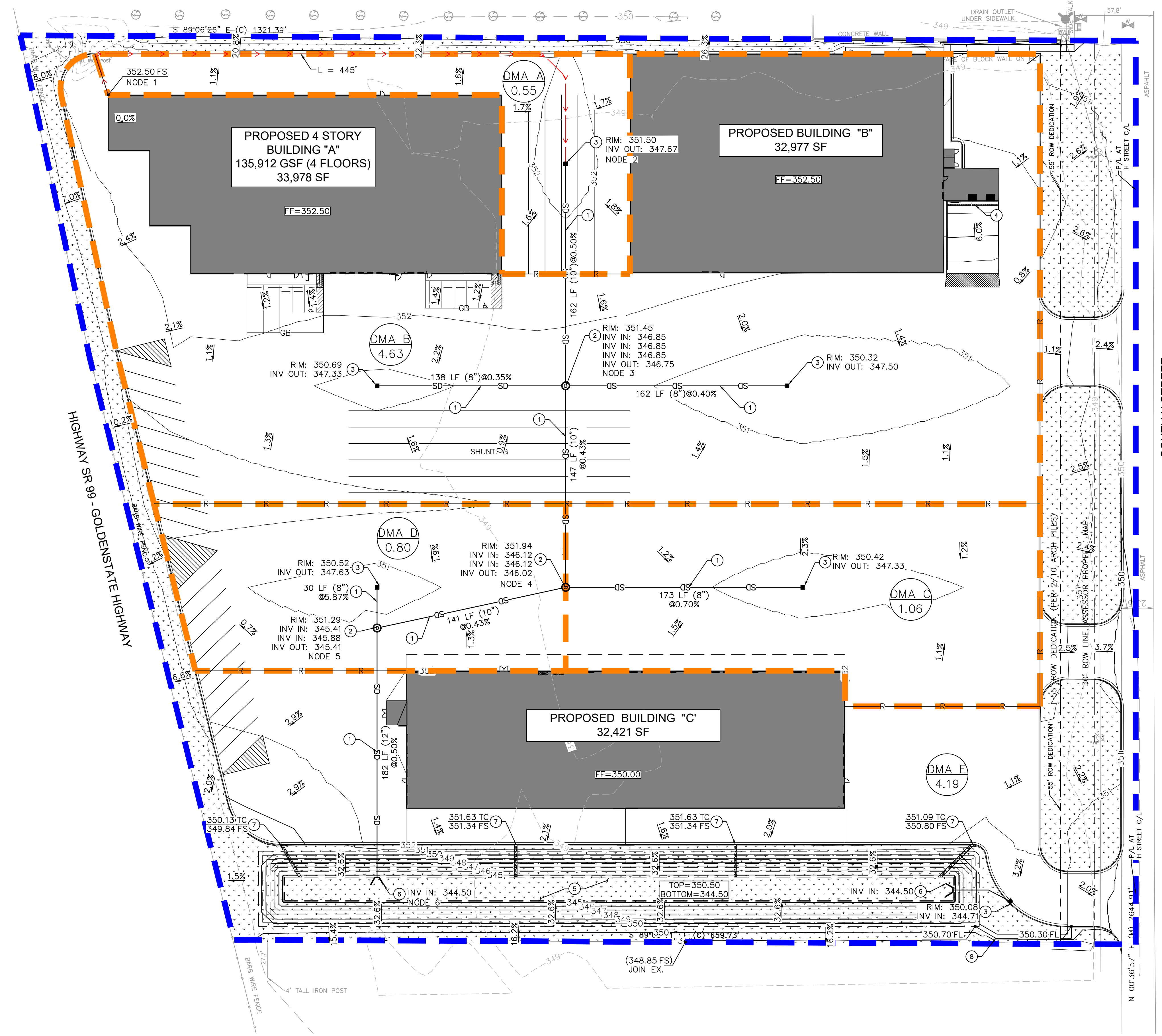
PEAK FLOW RATE(CFS) = 1.70

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END OF RATIONAL METHOD ANALYSIS

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Plotted By: Kim, Thomas Sheet Set: KHA_Layout: POST March 03, 2022 03:58:12pm K:\GRA_LDEV\U-Haul\XXXXXXX - Bakersfield\CADD\Exhibits\Post-Conditions Hydrology Exhibit.dwg
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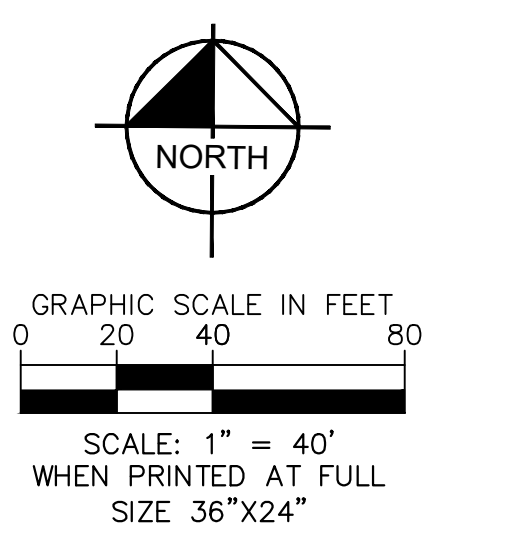


LEGEND

- PROPERTY LINE
- PUBLIC RIGHT OF WAY
- DRAINAGE MANAGEMENT AREA (DMA)
- DRAINAGE AREA (DA) LIMITS
- RIDGE LINE
- GRADE BREAK
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED LANDSCAPING
- EXISTING GRADE
 (112.50 TC)
 (112.00 FS)
- PROPOSED GRADE
 112.50 TC
 112.00 FS
- PROPOSED SLOPE
 1.0%
- DMA NAME
 DMA AREA

- ### CONSTRUCTION NOTES
- 1 PROPOSED HDPE STORM DRAIN LINE. SIZE PER PLAN
 - 2 PROPOSED STORM DRAIN MANHOLE
 - 3 PROPOSED 2' X 2' INLET
 - 4 PROPOSED TRENCH DRAIN AND PUMP
 - 5 PROPOSED STORM WATER BASIN
 - 6 PROPOSED HEADWALL
 - 7 PROPOSED CURB CUT
 - 8 PROPOSED OVERFLOW STRUCTURE

- ### DRAINAGE NOTES
- EXISTING CONDITION
 $Q_{100}=1.70$ CFS
 - PROPOSED CONDITION
 $Q_{100}=18.46$ CFS



No.	REVISIONS	DATE	BY

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KHA PROJECT
 194333008
 DATE
 3/3/22
 SCALE AS SHOWN
 DESIGNED BY AV
 DRAWN BY AV
 CHECKED BY TK

**U-HAUL
 BAKERSFIELD**
 9407 SOUTH H STREET, BAKERSFIELD, CA 93313

**POST-CONDITIONS
 HYDROLOGY EXHIBIT**

SHEET NUMBER
2

RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM PACKAGE
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Ver. 18.0 Release Date: 07/01/2011 License ID 1499

Analysis prepared by:

***** DESCRIPTION OF STUDY *****

* U-HAUL BAKERSFIELD *
* PROPOSED CONDITIONS *
* 100 YR ANALYSIS *

FILE NAME: BKRPROP.DAT
TIME/DATE OF STUDY: 15:43 03/03/2022

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USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:

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--*TIME-OF-CONCENTRATION MODEL*--

USER SPECIFIED STORM EVENT(YEAR) = 100.00
SPECIFIED MINIMUM PIPE SIZE(INCH) = 6.00
SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.95
USER-DEFINED TABLED RAINFALL USED

NUMBER OF [TIME,INTENSITY] DATA PAIRS = 5

- 1) 5.00; 2.960
- 2) 10.00; 2.120
- 3) 30.00; 1.180
- 4) 60.00; 0.828
- 5) 180.00; 0.419

ANTECEDENT MOISTURE CONDITION (AMC) II ASSUMED FOR RATIONAL METHOD

USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL

NO.	HALF- WIDTH (FT)	CROWN TO CROSSFALL (FT)	STREET-CROSSFALL: IN- / OUT-/ SIDE / SIDE/ WAY	CURB HEIGHT (FT)	GUTTER-GEOMETRIES: WIDTH (FT)	LIP (FT)	HIKE (FT)	MANNING FACTOR (n)
1	30.0	20.0	0.018/0.018/0.020	0.67	2.00	0.0313	0.167	0.0150

GLOBAL STREET FLOW-DEPTH CONSTRAINTS:

- 1. Relative Flow-Depth = 0.00 FEET
as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
- 2. (Depth)*(Velocity) Constraint = 6.0 (FT*FT/S)

*SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
 OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*
 *USER-SPECIFIED MINIMUM TOPOGRAPHIC SLOPE ADJUSTMENT NOT SELECTED

 FLOW PROCESS FROM NODE 1.00 TO NODE 2.00 IS CODE = 21

>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
 >>USE TIME-OF-CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA<<

=====

INITIAL SUBAREA FLOW-LENGTH(FEET) = 445.00
 ELEVATION DATA: UPSTREAM(FEET) = 352.50 DOWNSTREAM(FEET) = 351.50

$T_c = K * [(LENGTH ** 3.00) / (ELEVATION CHANGE)] ** 0.20$

SUBAREA ANALYSIS USED MINIMUM T_c (MIN.) = 11.800

* 100 YEAR RAINFALL INTENSITY(INCH/HR) = 2.035

SUBAREA T_c AND LOSS RATE DATA(AMC II):

DEVELOPMENT TYPE/ LAND USE	SCS SOIL GROUP	AREA (ACRES)	Fp (INCH/HR)	Ap (DECIMAL)	SCS CN	T_c (MIN.)
COMMERCIAL	A	0.55	0.93	0.100	39	11.80

SUBAREA AVERAGE PERVIOUS LOSS RATE, F_p (INCH/HR) = 0.93

SUBAREA AVERAGE PERVIOUS AREA FRACTION, A_p = 0.100

SUBAREA RUNOFF(CFS) = 0.96

TOTAL AREA(ACRES) = 0.55 PEAK FLOW RATE(CFS) = 0.96

 FLOW PROCESS FROM NODE 2.00 TO NODE 3.00 IS CODE = 31

>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
 >>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<

=====

ELEVATION DATA: UPSTREAM(FEET) = 347.67 DOWNSTREAM(FEET) = 346.85
 FLOW LENGTH(FEET) = 162.00 MANNING'S N = 0.013
 DEPTH OF FLOW IN 9.0 INCH PIPE IS 6.3 INCHES
 PIPE-FLOW VELOCITY(FEET/SEC.) = 2.90
 ESTIMATED PIPE DIAMETER(INCH) = 9.00 NUMBER OF PIPES = 1
 PIPE-FLOW(CFS) = 0.96
 PIPE TRAVEL TIME(MIN.) = 0.93 T_c (MIN.) = 12.73
 LONGEST FLOWPATH FROM NODE 1.00 TO NODE 3.00 = 607.00 FEET.

 FLOW PROCESS FROM NODE 3.00 TO NODE 3.00 IS CODE = 81

>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<

=====

MAINLINE T_c (MIN.) = 12.73
 * 100 YEAR RAINFALL INTENSITY(INCH/HR) = 1.992

SUBAREA LOSS RATE DATA(AMC II):

DEVELOPMENT TYPE/ LAND USE	SCS SOIL GROUP	AREA (ACRES)	Fp (INCH/HR)	Ap (DECIMAL)	SCS CN

PIPE-FLOW VELOCITY(FEET/SEC.) = 5.03
ESTIMATED PIPE DIAMETER(INCH) = 24.00 NUMBER OF PIPES = 1
PIPE-FLOW(CFS) = 10.52
PIPE TRAVEL TIME(MIN.) = 0.47 Tc(MIN.) = 13.71
LONGEST FLOWPATH FROM NODE 1.00 TO NODE 5.00 = 895.00 FEET.

FLOW PROCESS FROM NODE 5.00 TO NODE 5.00 IS CODE = 81

>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<

MAINLINE Tc(MIN.) = 13.71
* 100 YEAR RAINFALL INTENSITY(INCH/HR) = 1.945
SUBAREA LOSS RATE DATA(AMC II):
DEVELOPMENT TYPE/ SCS SOIL AREA Fp Ap SCS
LAND USE GROUP (ACRES) (INCH/HR) (DECIMAL) CN
COMMERCIAL A 0.80 0.93 0.100 39
SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) = 0.93
SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap = 0.100
SUBAREA AREA(ACRES) = 0.80 SUBAREA RUNOFF(CFS) = 1.33
EFFECTIVE AREA(ACRES) = 7.04 AREA-AVERAGED Fm(INCH/HR) = 0.09
AREA-AVERAGED Fp(INCH/HR) = 0.93 AREA-AVERAGED Ap = 0.10
TOTAL AREA(ACRES) = 7.0 PEAK FLOW RATE(CFS) = 11.73

FLOW PROCESS FROM NODE 5.00 TO NODE 6.00 IS CODE = 31

>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<

>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<

ELEVATION DATA: UPSTREAM(FEET) = 345.41 DOWNSTREAM(FEET) = 344.50
FLOW LENGTH(FEET) = 182.00 MANNING'S N = 0.013
DEPTH OF FLOW IN 24.0 INCH PIPE IS 15.5 INCHES
PIPE-FLOW VELOCITY(FEET/SEC.) = 5.45
ESTIMATED PIPE DIAMETER(INCH) = 24.00 NUMBER OF PIPES = 1
PIPE-FLOW(CFS) = 11.73
PIPE TRAVEL TIME(MIN.) = 0.56 Tc(MIN.) = 14.27
LONGEST FLOWPATH FROM NODE 1.00 TO NODE 6.00 = 1077.00 FEET.

FLOW PROCESS FROM NODE 6.00 TO NODE 6.00 IS CODE = 81

>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<

MAINLINE Tc(MIN.) = 14.27
* 100 YEAR RAINFALL INTENSITY(INCH/HR) = 1.919
SUBAREA LOSS RATE DATA(AMC II):
DEVELOPMENT TYPE/ SCS SOIL AREA Fp Ap SCS
LAND USE GROUP (ACRES) (INCH/HR) (DECIMAL) CN
COMMERCIAL A 4.19 0.93 0.100 39

SUBAREA AVERAGE PERVIOUS LOSS RATE, $F_p(\text{INCH/HR}) = 0.93$
SUBAREA AVERAGE PERVIOUS AREA FRACTION, $A_p = 0.100$
SUBAREA AREA(ACRES) = 4.19 SUBAREA RUNOFF(CFS) = 6.89
EFFECTIVE AREA(ACRES) = 11.23 AREA-AVERAGED $F_m(\text{INCH/HR}) = 0.09$
AREA-AVERAGED $F_p(\text{INCH/HR}) = 0.93$ AREA-AVERAGED $A_p = 0.10$
TOTAL AREA(ACRES) = 11.2 PEAK FLOW RATE(CFS) = 18.46

END OF STUDY SUMMARY:

TOTAL AREA(ACRES) = 11.2 TC(MIN.) = 14.27
EFFECTIVE AREA(ACRES) = 11.23 AREA-AVERAGED $F_m(\text{INCH/HR}) = 0.09$
AREA-AVERAGED $F_p(\text{INCH/HR}) = 0.93$ AREA-AVERAGED $A_p = 0.100$
PEAK FLOW RATE(CFS) = 18.46

END OF RATIONAL METHOD ANALYSIS



APPENDIX B: STORM DRAIN HYDRAULIC ANALYSIS

U-Haul Bakersfield
Synthetic Unit Hydrograph Method
Per Instructions Found on Kern County Hydrology Manual, Section E.12

Y Bar Calculations

Yj	0.916431
P24 (in.)	2.76
la	0.040816
S	0.204082
CN	98
Y Bar	0.083569

U n i t H y d r o g r a p h A n a l y s i s

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Study date 03/03/22

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Kern County Synthetic Unit Hydrograph Hydrology Method
Manual date - 1992

Program License Serial Number 6443

U-Haul Bakersfield
100-Year, 24-Hour unit Hydrograph
Proposed Conditions

Storm Event Year = 100

English (in-lb) Input Units Used

English Rainfall Data (Inches) Input Values Used

English Units used in output format

RAINFALL DATA INPUT:

Slope of Intensity-Duration Curve Slope = 0.650

Zone Designation: San Joaquin Valley Latitude = 35.27

Area averaged rainfall intensity isohyetal data:

Sub-Area (Ac.)	Duration (hours)	Isohyetal (In)
Rainfall data for year 2		
1.00	6	0.63

Rainfall data for year 2
1.00 24 0.98

Rainfall data for year 100
1.00 6 1.60

Rainfall data for year 100

1.00 24 2.76

++++
SAN JOAQUIN VALLEY area of study

Log-Log Rainfall Intensity Slope = 0.65

***** Area-averaged max loss rate, Fm *****

SCS curve Number	Area (Ac.)	Area Fraction	Fp (In/Hr)	Ap (dec.)	Fm (In/Hr)
98.0	11.23	1.000	0.000	0.150	0.000

Area-averaged adjusted loss rate Fm (In/Hr) = 0.000

***** Area-Averaged low loss rate fraction, Yb *****

Area (Ac.)	Area Fract	SCS CN (AMC2)	S	Pervious Yield Fr
1.68	0.150	98.0	0.20	0.916
9.55	0.850	98.0	0.20	0.916

Area-averaged catchment yield fraction, Y = 0.916

Area-averaged low loss fraction, Yb = 0.084

User entry of time of concentration = 0.238 (hours)

++++
Watershed area = 11.23(Ac.)

Catchment Lag time = 0.190 hours

Unit interval = 5.000 minutes

Unit interval percentage of lag time = 43.7675

Hydrograph baseflow = 0.00(CFS)

Average maximum watershed loss rate(Fm) = 0.000(In/Hr)

Average low loss rate fraction (Yb) = 0.084 (decimal)

VALLEY DEVELOPED S-Graph Selected

Computed peak 5-minute rainfall = 0.293(In)

Computed peak 30-minute rainfall = 0.548(In)

Specified peak 1-hour rainfall = 0.699(In)

Computed peak 3-hour rainfall = 1.161(In)

Specified peak 6-hour rainfall = 1.600(In)

Specified peak 24-hour rainfall = 2.760(In)

Rainfall depth area reduction factors:

Using a total area of 1.00(Ac.) (Ref: fig. E-4)

5-minute factor = 1.000 Adjusted rainfall = 0.293(In)

30-minute factor = 1.000 Adjusted rainfall = 0.548(In)

1-hour factor = 1.000 Adjusted rainfall = 0.699(In)
 3-hour factor = 1.000 Adjusted rainfall = 1.161(In)
 6-hour factor = 1.000 Adjusted rainfall = 1.600(In)
 24-hour factor = 1.000 Adjusted rainfall = 2.760(In)

Unit Hydrograph

+++++

Interval Number	'S' Graph Mean values	Unit Hydrograph (CFS)
--------------------	--------------------------	--------------------------

(K = 135.81 (CFS))

1	3.437	4.668
2	23.098	26.703
3	56.616	45.520
4	83.148	36.035
5	94.090	14.860
6	97.984	5.288
7	100.000	2.739

Rainfall values calculated at 5 minute intervals:

Peak Rainfall Unit Number	Intensity	Depth	Adjusted	Unit Rainfall (In)
1	3.51	0.29	0.29	0.293
2	2.24	0.37	0.37	0.080
3	1.72	0.43	0.43	0.057
4	1.43	0.48	0.48	0.046
5	1.23	0.51	0.51	0.039
6	1.10	0.55	0.55	0.034
7	0.99	0.58	0.58	0.030
8	0.91	0.61	0.61	0.028
9	0.84	0.63	0.63	0.026
10	0.79	0.66	0.66	0.024
11	0.74	0.68	0.68	0.022
12	0.70	0.70	0.70	0.021
13	0.67	0.73	0.73	0.026
14	0.64	0.75	0.75	0.025
15	0.62	0.77	0.77	0.024
16	0.60	0.80	0.80	0.023
17	0.58	0.82	0.82	0.023
18	0.56	0.84	0.84	0.022
19	0.55	0.86	0.86	0.021
20	0.53	0.89	0.89	0.021
21	0.52	0.91	0.91	0.020
22	0.50	0.92	0.92	0.020
23	0.49	0.94	0.94	0.019
24	0.48	0.96	0.96	0.019
25	0.47	0.98	0.98	0.018
26	0.46	1.00	1.00	0.018

27	0.45	1.02	1.02	0.018
28	0.44	1.03	1.03	0.017
29	0.43	1.05	1.05	0.017
30	0.43	1.07	1.07	0.017
31	0.42	1.08	1.08	0.016
32	0.41	1.10	1.10	0.016
33	0.41	1.12	1.12	0.016
34	0.40	1.13	1.13	0.016
35	0.39	1.15	1.15	0.015
36	0.39	1.16	1.16	0.015
37	0.38	1.18	1.18	0.015
38	0.38	1.19	1.19	0.015
39	0.37	1.21	1.21	0.014
40	0.37	1.22	1.22	0.014
41	0.36	1.23	1.23	0.014
42	0.36	1.25	1.25	0.014
43	0.35	1.26	1.26	0.014
44	0.35	1.27	1.27	0.013
45	0.34	1.29	1.29	0.013
46	0.34	1.30	1.30	0.013
47	0.34	1.31	1.31	0.013
48	0.33	1.33	1.33	0.013
49	0.33	1.34	1.34	0.013
50	0.32	1.35	1.35	0.013
51	0.32	1.36	1.36	0.012
52	0.32	1.38	1.38	0.012
53	0.31	1.39	1.39	0.012
54	0.31	1.40	1.40	0.012
55	0.31	1.41	1.41	0.012
56	0.31	1.42	1.42	0.012
57	0.30	1.44	1.44	0.012
58	0.30	1.45	1.45	0.012
59	0.30	1.46	1.46	0.011
60	0.29	1.47	1.47	0.011
61	0.29	1.48	1.48	0.011
62	0.29	1.49	1.49	0.011
63	0.29	1.50	1.50	0.011
64	0.28	1.52	1.52	0.011
65	0.28	1.53	1.53	0.011
66	0.28	1.54	1.54	0.011
67	0.28	1.55	1.55	0.011
68	0.27	1.56	1.56	0.011
69	0.27	1.57	1.57	0.011
70	0.27	1.58	1.58	0.010
71	0.27	1.59	1.59	0.010
72	0.27	1.60	1.60	0.010
73	0.26	1.61	1.61	0.009
74	0.26	1.62	1.62	0.009
75	0.26	1.63	1.63	0.009
76	0.26	1.63	1.63	0.008

77	0.26	1.64	1.64	0.008
78	0.25	1.65	1.65	0.008
79	0.25	1.66	1.66	0.008
80	0.25	1.67	1.67	0.008
81	0.25	1.68	1.68	0.008
82	0.25	1.68	1.68	0.008
83	0.24	1.69	1.69	0.008
84	0.24	1.70	1.70	0.008
85	0.24	1.71	1.71	0.008
86	0.24	1.72	1.72	0.008
87	0.24	1.72	1.72	0.008
88	0.24	1.73	1.73	0.008
89	0.23	1.74	1.74	0.008
90	0.23	1.75	1.75	0.008
91	0.23	1.75	1.75	0.008
92	0.23	1.76	1.76	0.008
93	0.23	1.77	1.77	0.008
94	0.23	1.78	1.78	0.007
95	0.23	1.78	1.78	0.007
96	0.22	1.79	1.79	0.007
97	0.22	1.80	1.80	0.007
98	0.22	1.81	1.81	0.007
99	0.22	1.81	1.81	0.007
100	0.22	1.82	1.82	0.007
101	0.22	1.83	1.83	0.007
102	0.22	1.83	1.83	0.007
103	0.21	1.84	1.84	0.007
104	0.21	1.85	1.85	0.007
105	0.21	1.86	1.86	0.007
106	0.21	1.86	1.86	0.007
107	0.21	1.87	1.87	0.007
108	0.21	1.88	1.88	0.007
109	0.21	1.88	1.88	0.007
110	0.21	1.89	1.89	0.007
111	0.21	1.90	1.90	0.007
112	0.20	1.90	1.90	0.007
113	0.20	1.91	1.91	0.007
114	0.20	1.92	1.92	0.007
115	0.20	1.92	1.92	0.007
116	0.20	1.93	1.93	0.007
117	0.20	1.94	1.94	0.007
118	0.20	1.94	1.94	0.006
119	0.20	1.95	1.95	0.006
120	0.20	1.96	1.96	0.006
121	0.19	1.96	1.96	0.006
122	0.19	1.97	1.97	0.006
123	0.19	1.98	1.98	0.006
124	0.19	1.98	1.98	0.006
125	0.19	1.99	1.99	0.006
126	0.19	1.99	1.99	0.006

127	0.19	2.00	2.00	0.006
128	0.19	2.01	2.01	0.006
129	0.19	2.01	2.01	0.006
130	0.19	2.02	2.02	0.006
131	0.19	2.02	2.02	0.006
132	0.18	2.03	2.03	0.006
133	0.18	2.04	2.04	0.006
134	0.18	2.04	2.04	0.006
135	0.18	2.05	2.05	0.006
136	0.18	2.05	2.05	0.006
137	0.18	2.06	2.06	0.006
138	0.18	2.07	2.07	0.006
139	0.18	2.07	2.07	0.006
140	0.18	2.08	2.08	0.006
141	0.18	2.08	2.08	0.006
142	0.18	2.09	2.09	0.006
143	0.18	2.10	2.10	0.006
144	0.18	2.10	2.10	0.006
145	0.17	2.11	2.11	0.006
146	0.17	2.11	2.11	0.006
147	0.17	2.12	2.12	0.006
148	0.17	2.12	2.12	0.006
149	0.17	2.13	2.13	0.006
150	0.17	2.14	2.14	0.006
151	0.17	2.14	2.14	0.006
152	0.17	2.15	2.15	0.006
153	0.17	2.15	2.15	0.006
154	0.17	2.16	2.16	0.006
155	0.17	2.16	2.16	0.005
156	0.17	2.17	2.17	0.005
157	0.17	2.17	2.17	0.005
158	0.17	2.18	2.18	0.005
159	0.16	2.18	2.18	0.005
160	0.16	2.19	2.19	0.005
161	0.16	2.20	2.20	0.005
162	0.16	2.20	2.20	0.005
163	0.16	2.21	2.21	0.005
164	0.16	2.21	2.21	0.005
165	0.16	2.22	2.22	0.005
166	0.16	2.22	2.22	0.005
167	0.16	2.23	2.23	0.005
168	0.16	2.23	2.23	0.005
169	0.16	2.24	2.24	0.005
170	0.16	2.24	2.24	0.005
171	0.16	2.25	2.25	0.005
172	0.16	2.25	2.25	0.005
173	0.16	2.26	2.26	0.005
174	0.16	2.26	2.26	0.005
175	0.16	2.27	2.27	0.005
176	0.16	2.27	2.27	0.005

177	0.15	2.28	2.28	0.005
178	0.15	2.28	2.28	0.005
179	0.15	2.29	2.29	0.005
180	0.15	2.29	2.29	0.005
181	0.15	2.30	2.30	0.005
182	0.15	2.30	2.30	0.005
183	0.15	2.31	2.31	0.005
184	0.15	2.31	2.31	0.005
185	0.15	2.32	2.32	0.005
186	0.15	2.32	2.32	0.005
187	0.15	2.33	2.33	0.005
188	0.15	2.33	2.33	0.005
189	0.15	2.34	2.34	0.005
190	0.15	2.34	2.34	0.005
191	0.15	2.35	2.35	0.005
192	0.15	2.35	2.35	0.005
193	0.15	2.36	2.36	0.005
194	0.15	2.36	2.36	0.005
195	0.15	2.37	2.37	0.005
196	0.15	2.37	2.37	0.005
197	0.14	2.38	2.38	0.005
198	0.14	2.38	2.38	0.005
199	0.14	2.39	2.39	0.005
200	0.14	2.39	2.39	0.005
201	0.14	2.40	2.40	0.005
202	0.14	2.40	2.40	0.005
203	0.14	2.41	2.41	0.005
204	0.14	2.41	2.41	0.005
205	0.14	2.41	2.41	0.005
206	0.14	2.42	2.42	0.005
207	0.14	2.42	2.42	0.005
208	0.14	2.43	2.43	0.005
209	0.14	2.43	2.43	0.005
210	0.14	2.44	2.44	0.005
211	0.14	2.44	2.44	0.005
212	0.14	2.45	2.45	0.005
213	0.14	2.45	2.45	0.005
214	0.14	2.46	2.46	0.005
215	0.14	2.46	2.46	0.005
216	0.14	2.46	2.46	0.004
217	0.14	2.47	2.47	0.004
218	0.14	2.47	2.47	0.004
219	0.14	2.48	2.48	0.004
220	0.14	2.48	2.48	0.004
221	0.14	2.49	2.49	0.004
222	0.13	2.49	2.49	0.004
223	0.13	2.50	2.50	0.004
224	0.13	2.50	2.50	0.004
225	0.13	2.50	2.50	0.004
226	0.13	2.51	2.51	0.004

227	0.13	2.51	2.51	0.004
228	0.13	2.52	2.52	0.004
229	0.13	2.52	2.52	0.004
230	0.13	2.53	2.53	0.004
231	0.13	2.53	2.53	0.004
232	0.13	2.53	2.53	0.004
233	0.13	2.54	2.54	0.004
234	0.13	2.54	2.54	0.004
235	0.13	2.55	2.55	0.004
236	0.13	2.55	2.55	0.004
237	0.13	2.56	2.56	0.004
238	0.13	2.56	2.56	0.004
239	0.13	2.56	2.56	0.004
240	0.13	2.57	2.57	0.004
241	0.13	2.57	2.57	0.004
242	0.13	2.58	2.58	0.004
243	0.13	2.58	2.58	0.004
244	0.13	2.59	2.59	0.004
245	0.13	2.59	2.59	0.004
246	0.13	2.59	2.59	0.004
247	0.13	2.60	2.60	0.004
248	0.13	2.60	2.60	0.004
249	0.13	2.61	2.61	0.004
250	0.13	2.61	2.61	0.004
251	0.13	2.61	2.61	0.004
252	0.12	2.62	2.62	0.004
253	0.12	2.62	2.62	0.004
254	0.12	2.63	2.63	0.004
255	0.12	2.63	2.63	0.004
256	0.12	2.64	2.64	0.004
257	0.12	2.64	2.64	0.004
258	0.12	2.64	2.64	0.004
259	0.12	2.65	2.65	0.004
260	0.12	2.65	2.65	0.004
261	0.12	2.66	2.66	0.004
262	0.12	2.66	2.66	0.004
263	0.12	2.66	2.66	0.004
264	0.12	2.67	2.67	0.004
265	0.12	2.67	2.67	0.004
266	0.12	2.68	2.68	0.004
267	0.12	2.68	2.68	0.004
268	0.12	2.68	2.68	0.004
269	0.12	2.69	2.69	0.004
270	0.12	2.69	2.69	0.004
271	0.12	2.69	2.69	0.004
272	0.12	2.70	2.70	0.004
273	0.12	2.70	2.70	0.004
274	0.12	2.71	2.71	0.004
275	0.12	2.71	2.71	0.004
276	0.12	2.71	2.71	0.004

277	0.12	2.72	2.72	0.004
278	0.12	2.72	2.72	0.004
279	0.12	2.73	2.73	0.004
280	0.12	2.73	2.73	0.004
281	0.12	2.73	2.73	0.004
282	0.12	2.74	2.74	0.004
283	0.12	2.74	2.74	0.004
284	0.12	2.74	2.74	0.004
285	0.12	2.75	2.75	0.004
286	0.12	2.75	2.75	0.004
287	0.12	2.76	2.76	0.004
288	0.11	2.76	2.76	0.004
Time = 24.00 Hours		Total unit rainfall = 2.76(In)		

Unit Period (number)	Unit Rainfall (In)	Unit Soil-Loss (In)	Effective Rainfall (In)
1	0.0038	0.0000*	0.0038
2	0.0038	0.0000*	0.0038
3	0.0038	0.0000*	0.0038
4	0.0038	0.0000*	0.0038
5	0.0038	0.0000*	0.0038
6	0.0038	0.0000*	0.0038
7	0.0038	0.0000*	0.0038
8	0.0039	0.0000*	0.0039
9	0.0039	0.0000*	0.0039
10	0.0039	0.0000*	0.0039
11	0.0039	0.0000*	0.0039
12	0.0039	0.0000*	0.0039
13	0.0039	0.0000*	0.0039
14	0.0039	0.0000*	0.0039
15	0.0040	0.0000*	0.0040
16	0.0040	0.0000*	0.0040
17	0.0040	0.0000*	0.0040
18	0.0040	0.0000*	0.0040
19	0.0040	0.0000*	0.0040
20	0.0040	0.0000*	0.0040
21	0.0040	0.0000*	0.0040
22	0.0040	0.0000*	0.0040
23	0.0041	0.0000*	0.0041
24	0.0041	0.0000*	0.0041
25	0.0041	0.0000*	0.0041
26	0.0041	0.0000*	0.0041
27	0.0041	0.0000*	0.0041
28	0.0041	0.0000*	0.0041
29	0.0042	0.0000*	0.0042
30	0.0042	0.0000*	0.0042
31	0.0042	0.0000*	0.0042
32	0.0042	0.0000*	0.0042

33	0.0042	0.0000*	0.0042
34	0.0042	0.0000*	0.0042
35	0.0042	0.0000*	0.0042
36	0.0043	0.0000*	0.0043
37	0.0043	0.0000*	0.0043
38	0.0043	0.0000*	0.0043
39	0.0043	0.0000*	0.0043
40	0.0043	0.0000*	0.0043
41	0.0043	0.0000*	0.0043
42	0.0044	0.0000*	0.0044
43	0.0044	0.0000*	0.0044
44	0.0044	0.0000*	0.0044
45	0.0044	0.0000*	0.0044
46	0.0044	0.0000*	0.0044
47	0.0045	0.0000*	0.0045
48	0.0045	0.0000*	0.0045
49	0.0045	0.0000*	0.0045
50	0.0045	0.0000*	0.0045
51	0.0045	0.0000*	0.0045
52	0.0045	0.0000*	0.0045
53	0.0046	0.0000*	0.0046
54	0.0046	0.0000*	0.0046
55	0.0046	0.0000*	0.0046
56	0.0046	0.0000*	0.0046
57	0.0047	0.0000*	0.0047
58	0.0047	0.0000*	0.0047
59	0.0047	0.0000*	0.0047
60	0.0047	0.0000*	0.0047
61	0.0047	0.0000*	0.0047
62	0.0048	0.0000*	0.0048
63	0.0048	0.0000*	0.0048
64	0.0048	0.0000*	0.0048
65	0.0048	0.0000*	0.0048
66	0.0048	0.0000*	0.0048
67	0.0049	0.0000*	0.0049
68	0.0049	0.0000*	0.0049
69	0.0049	0.0000*	0.0049
70	0.0049	0.0000*	0.0049
71	0.0050	0.0000*	0.0050
72	0.0050	0.0000*	0.0050
73	0.0050	0.0000*	0.0050
74	0.0050	0.0000*	0.0050
75	0.0051	0.0000*	0.0051
76	0.0051	0.0000*	0.0051
77	0.0051	0.0000*	0.0051
78	0.0051	0.0000*	0.0051
79	0.0052	0.0000*	0.0052
80	0.0052	0.0000*	0.0052
81	0.0052	0.0000*	0.0052
82	0.0053	0.0000*	0.0053

83	0.0053	0.0000*	0.0053
84	0.0053	0.0000*	0.0053
85	0.0054	0.0000*	0.0054
86	0.0054	0.0000*	0.0054
87	0.0054	0.0000*	0.0054
88	0.0054	0.0000*	0.0054
89	0.0055	0.0000*	0.0055
90	0.0055	0.0000*	0.0055
91	0.0055	0.0000*	0.0055
92	0.0056	0.0000*	0.0056
93	0.0056	0.0000*	0.0056
94	0.0056	0.0000*	0.0056
95	0.0057	0.0000*	0.0057
96	0.0057	0.0000*	0.0057
97	0.0058	0.0000*	0.0058
98	0.0058	0.0000*	0.0058
99	0.0058	0.0000*	0.0058
100	0.0059	0.0000*	0.0059
101	0.0059	0.0000*	0.0059
102	0.0059	0.0000*	0.0059
103	0.0060	0.0000*	0.0060
104	0.0060	0.0000*	0.0060
105	0.0061	0.0000*	0.0061
106	0.0061	0.0000*	0.0061
107	0.0062	0.0000*	0.0062
108	0.0062	0.0000*	0.0062
109	0.0062	0.0000*	0.0062
110	0.0063	0.0000*	0.0063
111	0.0063	0.0000*	0.0063
112	0.0064	0.0000*	0.0064
113	0.0064	0.0000*	0.0064
114	0.0065	0.0000*	0.0065
115	0.0065	0.0000*	0.0065
116	0.0066	0.0000*	0.0066
117	0.0066	0.0000*	0.0066
118	0.0067	0.0000*	0.0067
119	0.0067	0.0000*	0.0067
120	0.0068	0.0000*	0.0068
121	0.0069	0.0000*	0.0069
122	0.0069	0.0000*	0.0069
123	0.0070	0.0000*	0.0070
124	0.0070	0.0000*	0.0070
125	0.0071	0.0000*	0.0071
126	0.0071	0.0000*	0.0071
127	0.0072	0.0000*	0.0072
128	0.0073	0.0000*	0.0073
129	0.0074	0.0000*	0.0074
130	0.0074	0.0000*	0.0074
131	0.0075	0.0000*	0.0075
132	0.0076	0.0000*	0.0076

133	0.0077	0.0000*	0.0077
134	0.0077	0.0000*	0.0077
135	0.0078	0.0000*	0.0078
136	0.0079	0.0000*	0.0079
137	0.0080	0.0000*	0.0080
138	0.0080	0.0000*	0.0080
139	0.0082	0.0000*	0.0082
140	0.0082	0.0000*	0.0082
141	0.0084	0.0000*	0.0084
142	0.0084	0.0000*	0.0084
143	0.0086	0.0000*	0.0086
144	0.0086	0.0000*	0.0086
145	0.0103	0.0000*	0.0103
146	0.0104	0.0000*	0.0104
147	0.0106	0.0000*	0.0106
148	0.0106	0.0000*	0.0106
149	0.0108	0.0000*	0.0108
150	0.0109	0.0000*	0.0109
151	0.0111	0.0000*	0.0111
152	0.0112	0.0000*	0.0112
153	0.0114	0.0000*	0.0114
154	0.0115	0.0000*	0.0115
155	0.0117	0.0000*	0.0117
156	0.0118	0.0000*	0.0118
157	0.0121	0.0000*	0.0121
158	0.0122	0.0000*	0.0122
159	0.0124	0.0000*	0.0124
160	0.0126	0.0000*	0.0126
161	0.0128	0.0000*	0.0128
162	0.0130	0.0000*	0.0130
163	0.0133	0.0000*	0.0133
164	0.0135	0.0000*	0.0135
165	0.0138	0.0000*	0.0138
166	0.0140	0.0000*	0.0140
167	0.0144	0.0000*	0.0144
168	0.0146	0.0000*	0.0146
169	0.0150	0.0000*	0.0150
170	0.0153	0.0000*	0.0153
171	0.0158	0.0000*	0.0158
172	0.0160	0.0000*	0.0160
173	0.0166	0.0000*	0.0166
174	0.0169	0.0000*	0.0169
175	0.0176	0.0000*	0.0176
176	0.0180	0.0000*	0.0180
177	0.0188	0.0000*	0.0188
178	0.0192	0.0000*	0.0192
179	0.0202	0.0000*	0.0202
180	0.0207	0.0000*	0.0207
181	0.0220	0.0000*	0.0220
182	0.0227	0.0000*	0.0227

183	0.0243	0.0000*	0.0243
184	0.0253	0.0000*	0.0253
185	0.0210	0.0000*	0.0210
186	0.0222	0.0000*	0.0222
187	0.0255	0.0000*	0.0255
188	0.0277	0.0000*	0.0277
189	0.0339	0.0000*	0.0339
190	0.0386	0.0000*	0.0386
191	0.0569	0.0000*	0.0569
192	0.0804	0.0000*	0.0804
193	0.2929	0.0000*	0.2929
194	0.0456	0.0000*	0.0456
195	0.0304	0.0000*	0.0304
196	0.0237	0.0000*	0.0237
197	0.0263	0.0000*	0.0263
198	0.0235	0.0000*	0.0235
199	0.0213	0.0000*	0.0213
200	0.0197	0.0000*	0.0197
201	0.0183	0.0000*	0.0183
202	0.0172	0.0000*	0.0172
203	0.0163	0.0000*	0.0163
204	0.0155	0.0000*	0.0155
205	0.0148	0.0000*	0.0148
206	0.0142	0.0000*	0.0142
207	0.0136	0.0000*	0.0136
208	0.0131	0.0000*	0.0131
209	0.0127	0.0000*	0.0127
210	0.0123	0.0000*	0.0123
211	0.0119	0.0000*	0.0119
212	0.0116	0.0000*	0.0116
213	0.0113	0.0000*	0.0113
214	0.0110	0.0000*	0.0110
215	0.0107	0.0000*	0.0107
216	0.0105	0.0000*	0.0105
217	0.0087	0.0000*	0.0087
218	0.0085	0.0000*	0.0085
219	0.0083	0.0000*	0.0083
220	0.0081	0.0000*	0.0081
221	0.0079	0.0000*	0.0079
222	0.0078	0.0000*	0.0078
223	0.0076	0.0000*	0.0076
224	0.0075	0.0000*	0.0075
225	0.0073	0.0000*	0.0073
226	0.0072	0.0000*	0.0072
227	0.0071	0.0000*	0.0071
228	0.0069	0.0000*	0.0069
229	0.0068	0.0000*	0.0068
230	0.0067	0.0000*	0.0067
231	0.0066	0.0000*	0.0066
232	0.0065	0.0000*	0.0065

233	0.0064	0.0000*	0.0064
234	0.0063	0.0000*	0.0063
235	0.0062	0.0000*	0.0062
236	0.0061	0.0000*	0.0061
237	0.0060	0.0000*	0.0060
238	0.0060	0.0000*	0.0060
239	0.0059	0.0000*	0.0059
240	0.0058	0.0000*	0.0058
241	0.0057	0.0000*	0.0057
242	0.0057	0.0000*	0.0057
243	0.0056	0.0000*	0.0056
244	0.0055	0.0000*	0.0055
245	0.0055	0.0000*	0.0055
246	0.0054	0.0000*	0.0054
247	0.0053	0.0000*	0.0053
248	0.0053	0.0000*	0.0053
249	0.0052	0.0000*	0.0052
250	0.0052	0.0000*	0.0052
251	0.0051	0.0000*	0.0051
252	0.0051	0.0000*	0.0051
253	0.0050	0.0000*	0.0050
254	0.0050	0.0000*	0.0050
255	0.0049	0.0000*	0.0049
256	0.0049	0.0000*	0.0049
257	0.0048	0.0000*	0.0048
258	0.0048	0.0000*	0.0048
259	0.0047	0.0000*	0.0047
260	0.0047	0.0000*	0.0047
261	0.0046	0.0000*	0.0046
262	0.0046	0.0000*	0.0046
263	0.0046	0.0000*	0.0046
264	0.0045	0.0000*	0.0045
265	0.0045	0.0000*	0.0045
266	0.0044	0.0000*	0.0044
267	0.0044	0.0000*	0.0044
268	0.0044	0.0000*	0.0044
269	0.0043	0.0000*	0.0043
270	0.0043	0.0000*	0.0043
271	0.0043	0.0000*	0.0043
272	0.0042	0.0000*	0.0042
273	0.0042	0.0000*	0.0042
274	0.0042	0.0000*	0.0042
275	0.0041	0.0000*	0.0041
276	0.0041	0.0000*	0.0041
277	0.0041	0.0000*	0.0041
278	0.0041	0.0000*	0.0041
279	0.0040	0.0000*	0.0040
280	0.0040	0.0000*	0.0040
281	0.0040	0.0000*	0.0040
282	0.0039	0.0000*	0.0039

2+20	0.0940	0.56	Q
2+25	0.0979	0.56	Q
2+30	0.1017	0.56	Q
2+35	0.1056	0.56	Q
2+40	0.1095	0.56	Q
2+45	0.1134	0.57	Q
2+50	0.1173	0.57	Q
2+55	0.1213	0.57	Q
3+ 0	0.1252	0.57	Q
3+ 5	0.1292	0.58	QV
3+10	0.1332	0.58	QV
3+15	0.1372	0.58	QV
3+20	0.1412	0.58	QV
3+25	0.1452	0.58	QV
3+30	0.1492	0.59	QV
3+35	0.1533	0.59	QV
3+40	0.1574	0.59	QV
3+45	0.1615	0.59	QV
3+50	0.1656	0.60	QV
3+55	0.1697	0.60	QV
4+ 0	0.1738	0.60	QV
4+ 5	0.1780	0.60	QV
4+10	0.1822	0.61	QV
4+15	0.1864	0.61	QV
4+20	0.1906	0.61	QV
4+25	0.1948	0.61	Q V
4+30	0.1990	0.62	Q V
4+35	0.2033	0.62	Q V
4+40	0.2076	0.62	Q V
4+45	0.2119	0.62	Q V
4+50	0.2162	0.63	Q V
4+55	0.2206	0.63	Q V
5+ 0	0.2249	0.63	Q V
5+ 5	0.2293	0.64	Q V
5+10	0.2337	0.64	Q V
5+15	0.2381	0.64	Q V
5+20	0.2426	0.64	Q V
5+25	0.2470	0.65	Q V
5+30	0.2515	0.65	Q V
5+35	0.2560	0.65	Q V
5+40	0.2605	0.66	Q V
5+45	0.2651	0.66	Q V
5+50	0.2696	0.66	Q V
5+55	0.2742	0.67	Q V
6+ 0	0.2789	0.67	Q V
6+ 5	0.2835	0.67	Q V
6+10	0.2881	0.68	Q V
6+15	0.2928	0.68	Q V
6+20	0.2975	0.68	Q V
6+25	0.3023	0.69	Q V

6+30	0.3070	0.69	Q	V				
6+35	0.3118	0.69	Q	V				
6+40	0.3166	0.70	Q	V				
6+45	0.3214	0.70	Q	V				
6+50	0.3263	0.71	Q	V				
6+55	0.3312	0.71	Q	V				
7+ 0	0.3361	0.71	Q	V				
7+ 5	0.3410	0.72	Q	V				
7+10	0.3460	0.72	Q	V				
7+15	0.3510	0.72	Q	V				
7+20	0.3560	0.73	Q	V				
7+25	0.3611	0.73	Q	V				
7+30	0.3661	0.74	Q	V				
7+35	0.3712	0.74	Q	V				
7+40	0.3764	0.75	Q	V				
7+45	0.3815	0.75	Q	V				
7+50	0.3867	0.75	Q	V				
7+55	0.3920	0.76	Q	V				
8+ 0	0.3972	0.76	Q	V				
8+ 5	0.4025	0.77	Q	V				
8+10	0.4078	0.77	Q	V				
8+15	0.4132	0.78	Q	V				
8+20	0.4186	0.78	Q	V				
8+25	0.4240	0.79	Q	V				
8+30	0.4295	0.79	Q	V				
8+35	0.4350	0.80	Q	V				
8+40	0.4405	0.80	Q	V				
8+45	0.4461	0.81	Q	V				
8+50	0.4517	0.81	Q	V				
8+55	0.4574	0.82	Q	V				
9+ 0	0.4631	0.83	Q	V				
9+ 5	0.4688	0.83	Q	V				
9+10	0.4746	0.84	Q	V				
9+15	0.4804	0.84	Q	V				
9+20	0.4862	0.85	Q	V				
9+25	0.4921	0.86	Q	V				
9+30	0.4981	0.86	Q	V				
9+35	0.5040	0.87	Q	V				
9+40	0.5101	0.88	Q	V				
9+45	0.5162	0.88	Q	V				
9+50	0.5223	0.89	Q	V				
9+55	0.5285	0.90	Q	V				
10+ 0	0.5347	0.90	Q	V				
10+ 5	0.5410	0.91	Q	V				
10+10	0.5473	0.92	Q	V				
10+15	0.5537	0.93	Q	V				
10+20	0.5601	0.93	Q	V				
10+25	0.5666	0.94	Q	V				
10+30	0.5731	0.95	Q	V				
10+35	0.5797	0.96	Q	V				

10+40	0.5864	0.97	Q	V			
10+45	0.5931	0.98	Q	V			
10+50	0.5999	0.99	Q	V			
10+55	0.6068	0.99	Q	V			
11+ 0	0.6137	1.00	Q	V			
11+ 5	0.6207	1.01	Q	V			
11+10	0.6277	1.02	Q	V			
11+15	0.6348	1.03	Q	V			
11+20	0.6420	1.04	Q	V			
11+25	0.6493	1.06	Q	V			
11+30	0.6567	1.07	Q	V			
11+35	0.6641	1.08	Q	V			
11+40	0.6716	1.09	Q	V			
11+45	0.6792	1.10	Q	V			
11+50	0.6869	1.11	Q	V			
11+55	0.6946	1.13	Q	V			
12+ 0	0.7025	1.14	Q	V			
12+ 5	0.7105	1.16	Q	V			
12+10	0.7189	1.22	Q	V			
12+15	0.7278	1.30	Q	V			
12+20	0.7373	1.37	Q	V			
12+25	0.7470	1.41	Q	V			
12+30	0.7569	1.44	Q	V			
12+35	0.7669	1.46	Q	V			
12+40	0.7771	1.48	Q	V			
12+45	0.7874	1.49	Q	V			
12+50	0.7978	1.51	Q	V			
12+55	0.8084	1.53	Q	V			
13+ 0	0.8191	1.56	Q	V			
13+ 5	0.8300	1.58	Q	V			
13+10	0.8410	1.60	Q	V			
13+15	0.8522	1.62	Q	V			
13+20	0.8635	1.65	Q	V			
13+25	0.8750	1.67	Q	V			
13+30	0.8868	1.70	Q	V			
13+35	0.8987	1.73	Q	V			
13+40	0.9108	1.76	Q	V			
13+45	0.9231	1.79	Q	V			
13+50	0.9356	1.82	Q	V			
13+55	0.9484	1.86	Q	V			
14+ 0	0.9615	1.89	Q	V			
14+ 5	0.9748	1.93	Q	V			
14+10	0.9884	1.97	Q	V			
14+15	1.0023	2.02	Q	V			
14+20	1.0165	2.06	Q	V			
14+25	1.0310	2.11	Q	V			
14+30	1.0459	2.17	Q	V			
14+35	1.0612	2.22	Q	V			
14+40	1.0770	2.28	Q	V			
14+45	1.0932	2.35	Q	V			

14+50	1.1099	2.42	Q	V			
14+55	1.1271	2.50	Q	V			
15+ 0	1.1450	2.59	Q	V			
15+ 5	1.1635	2.69	Q	V			
15+10	1.1827	2.80	Q	V			
15+15	1.2029	2.92	Q	V			
15+20	1.2239	3.06	Q	V			
15+25	1.2459	3.19	Q	V			
15+30	1.2679	3.20	Q	V			
15+35	1.2894	3.12	Q	V			
15+40	1.3111	3.14	Q	V			
15+45	1.3343	3.37	Q	V			
15+50	1.3603	3.78	Q	V			
15+55	1.3906	4.39	Q	V			
16+ 0	1.4283	5.48	Q	V			
16+ 5	1.4849	8.22	Q	V			
16+10	1.5853	14.57	Q	V			
16+15	1.7143	18.73	Q	V			
16+20	1.8187	15.15	Q	V			
16+25	1.8787	8.72	Q	V			
16+30	1.9161	5.44	Q	V			
16+35	1.9456	4.28	Q	V			
16+40	1.9684	3.32	Q	V			
16+45	1.9893	3.03	Q	V			
16+50	2.0085	2.79	Q	V			
16+55	2.0263	2.59	Q	V			
17+ 0	2.0430	2.42	Q	V			
17+ 5	2.0587	2.28	Q	V			
17+10	2.0736	2.16	Q	V			
17+15	2.0878	2.06	Q	V			
17+20	2.1014	1.97	Q	V			
17+25	2.1144	1.89	Q	V			
17+30	2.1269	1.82	Q	V			
17+35	2.1390	1.75	Q	V			
17+40	2.1507	1.70	Q	V			
17+45	2.1620	1.64	Q	V			
17+50	2.1730	1.60	Q	V			
17+55	2.1837	1.55	Q	V			
18+ 0	2.1941	1.51	Q	V			
18+ 5	2.2042	1.47	Q	V			
18+10	2.2137	1.39	Q	V			
18+15	2.2226	1.29	Q	V			
18+20	2.2309	1.20	Q	V			
18+25	2.2388	1.15	Q	V			
18+30	2.2465	1.12	Q	V			
18+35	2.2540	1.09	Q	V			
18+40	2.2613	1.06	Q	V			
18+45	2.2685	1.04	Q	V			
18+50	2.2755	1.02	Q	V			
18+55	2.2824	1.00	Q	V			

19+ 0	2.2892	0.98	Q				V
19+ 5	2.2959	0.97	Q				V
19+10	2.3024	0.95	Q				V
19+15	2.3088	0.93	Q				V
19+20	2.3151	0.92	Q				V
19+25	2.3214	0.90	Q				V
19+30	2.3275	0.89	Q				V
19+35	2.3335	0.87	Q				V
19+40	2.3394	0.86	Q				V
19+45	2.3453	0.85	Q				V
19+50	2.3510	0.84	Q				V
19+55	2.3567	0.82	Q				V
20+ 0	2.3623	0.81	Q				V
20+ 5	2.3679	0.80	Q				V
20+10	2.3733	0.79	Q				V
20+15	2.3787	0.78	Q				V
20+20	2.3840	0.77	Q				V
20+25	2.3893	0.76	Q				V
20+30	2.3945	0.75	Q				V
20+35	2.3996	0.74	Q				V
20+40	2.4047	0.74	Q				V
20+45	2.4097	0.73	Q				V
20+50	2.4146	0.72	Q				V
20+55	2.4195	0.71	Q				V
21+ 0	2.4244	0.70	Q				V
21+ 5	2.4292	0.70	Q				V
21+10	2.4339	0.69	Q				V
21+15	2.4386	0.68	Q				V
21+20	2.4433	0.68	Q				V
21+25	2.4479	0.67	Q				V
21+30	2.4525	0.66	Q				V
21+35	2.4570	0.66	Q				V
21+40	2.4615	0.65	Q				V
21+45	2.4659	0.64	Q				V
21+50	2.4703	0.64	Q				V
21+55	2.4747	0.63	Q				V
22+ 0	2.4790	0.63	Q				V
22+ 5	2.4833	0.62	Q				V
22+10	2.4875	0.62	Q				V
22+15	2.4917	0.61	Q				V
22+20	2.4959	0.61	Q				V
22+25	2.5000	0.60	Q				V
22+30	2.5041	0.60	Q				V
22+35	2.5082	0.59	Q				V
22+40	2.5122	0.59	Q				V
22+45	2.5162	0.58	Q				V
22+50	2.5202	0.58	Q				V
22+55	2.5242	0.57	Q				V
23+ 0	2.5281	0.57	Q				V
23+ 5	2.5320	0.56	Q				V

23+10	2.5358	0.56	Q				V
23+15	2.5396	0.56	Q				V
23+20	2.5434	0.55	Q				V
23+25	2.5472	0.55	Q				V
23+30	2.5510	0.54	Q				V
23+35	2.5547	0.54	Q				V
23+40	2.5584	0.54	Q				V
23+45	2.5621	0.53	Q				V
23+50	2.5657	0.53	Q				V
23+55	2.5693	0.53	Q				V
24+ 0	2.5729	0.52	Q				V
24+ 5	2.5764	0.50	Q				V
24+10	2.5791	0.40	Q				V
24+15	2.5807	0.22	Q				V
24+20	2.5813	0.09	Q				V
24+25	2.5815	0.03	Q				V
24+30	2.5816	0.01	Q				V

U-Haul Bakersfield - PondPack Calculations

Project Summary

Title	UHaul Bakersfield- 100-Yr, 24-Hr
Engineer	Thomas Kim
Company	Kimley-Horn and Associates, Inc.
Date	2/24/2022

Notes

1. Inflow hydrograph (100-year, 24 hr) calculated based on Unit Hydrograph Method from Kern County Flood Control Hydrology Manual (April 1978) using CIVILD software.
 2. Flow-through basin analysis completed using modified Pul's (storage indication routing).
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U-Haul Bakersfield - PondPack Calculations

Subsection: User Notifications

User Notifications?	No user notifications generated.
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U-Haul Bakersfield - PondPack Calculations

Subsection: Master Network Summary

Catchments Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft ³)	Time to Peak (min)	Peak Flow (ft ³ /s)
Unit Hydrograph (Onsite Runoff)	Base	0	112,119.000	970.000	18.73

Node Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft ³)	Time to Peak (min)	Peak Flow (ft ³ /s)
Outfall (POC)	Base	0	0.000	0.000	0.00

Pond Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft ³)	Time to Peak (min)	Peak Flow (ft ³ /s)	Maximum Water Surface Elevation (ft)	Maximum Pond Storage (ft ³)
Onsite Detention Basin (IN)	Base	0	112,102.000	969.000	17.90	(N/A)	(N/A)
Onsite Detention Basin (OUT)	Base	0	0.000	0.000	0.00	350.32	101,841.000

U-Haul Bakersfield - PondPack Calculations

Subsection: Read Hydrograph
 Label: Unit Hydrograph (Onsite Runoff)

Scenario: Base

Peak Discharge	18.73 ft ³ /s
Time to Peak	970.000 min
Hydrograph Volume	112,119.000 ft ³

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 5.000 min

Time on left represents time for first value in each row.

Time (min)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
0.000	0.02	0.12	0.29	0.43	0.48
25.000	0.51	0.52	0.52	0.52	0.52
50.000	0.52	0.53	0.53	0.53	0.53
75.000	0.53	0.54	0.54	0.54	0.54
100.000	0.54	0.54	0.55	0.55	0.55
125.000	0.55	0.55	0.56	0.56	0.56
150.000	0.56	0.56	0.57	0.57	0.57
175.000	0.57	0.58	0.58	0.58	0.58
200.000	0.58	0.59	0.59	0.59	0.59
225.000	0.60	0.60	0.60	0.60	0.61
250.000	0.61	0.61	0.61	0.62	0.62
275.000	0.62	0.62	0.63	0.63	0.63
300.000	0.64	0.64	0.64	0.64	0.65
325.000	0.65	0.65	0.66	0.66	0.66
350.000	0.67	0.67	0.67	0.68	0.68
375.000	0.68	0.69	0.69	0.69	0.70
400.000	0.70	0.71	0.71	0.71	0.72
425.000	0.72	0.72	0.73	0.73	0.74
450.000	0.74	0.75	0.75	0.75	0.76
475.000	0.76	0.77	0.77	0.78	0.78
500.000	0.79	0.79	0.80	0.80	0.81
525.000	0.81	0.82	0.83	0.83	0.84
550.000	0.84	0.85	0.86	0.86	0.87
575.000	0.88	0.88	0.89	0.90	0.90
600.000	0.91	0.92	0.93	0.93	0.94
625.000	0.95	0.96	0.97	0.98	0.99
650.000	0.99	1.00	1.01	1.02	1.03
675.000	1.04	1.06	1.07	1.08	1.09
700.000	1.10	1.11	1.13	1.14	1.16
725.000	1.22	1.30	1.37	1.41	1.44
750.000	1.46	1.48	1.49	1.51	1.53
775.000	1.56	1.58	1.60	1.62	1.65
800.000	1.67	1.70	1.73	1.76	1.79
825.000	1.82	1.86	1.89	1.93	1.97
850.000	2.02	2.06	2.11	2.17	2.22
875.000	2.28	2.35	2.42	2.50	2.59
900.000	2.69	2.80	2.92	3.06	3.19

U-Haul Bakersfield - PondPack Calculations

Subsection: Read Hydrograph
 Label: Unit Hydrograph (Onsite Runoff)

Scenario: Base

HYDROGRAPH ORDINATES (ft³/s) Output Time Increment = 5.000 min

Time on left represents time for first value in each row.

Time (min)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
925.000	3.20	3.12	3.14	3.37	3.78
950.000	4.39	5.48	8.22	14.57	18.73
975.000	15.15	8.72	5.44	4.28	3.32
1,000.000	3.03	2.79	2.59	2.42	2.28
1,025.000	2.16	2.06	1.97	1.89	1.82
1,050.000	1.75	1.70	1.64	1.60	1.55
1,075.000	1.51	1.47	1.39	1.29	1.20
1,100.000	1.15	1.12	1.09	1.06	1.04
1,125.000	1.02	1.00	0.98	0.97	0.95
1,150.000	0.93	0.92	0.90	0.89	0.87
1,175.000	0.86	0.85	0.84	0.82	0.81
1,200.000	0.80	0.79	0.78	0.77	0.76
1,225.000	0.75	0.74	0.74	0.73	0.72
1,250.000	0.71	0.70	0.70	0.69	0.68
1,275.000	0.68	0.67	0.66	0.66	0.65
1,300.000	0.64	0.64	0.63	0.63	0.62
1,325.000	0.62	0.61	0.61	0.60	0.60
1,350.000	0.59	0.59	0.58	0.58	0.57
1,375.000	0.57	0.56	0.56	0.56	0.55
1,400.000	0.55	0.54	0.54	0.54	0.53
1,425.000	0.53	0.53	0.52	0.50	(N/A)

U-Haul Bakersfield - PondPack Calculations

Subsection: Addition Summary

Scenario: Base

Label: Outfall (POC)

Summary for Hydrograph Addition at 'Outfall (POC)'

Upstream Link	Upstream Node
Outlet-1	Onsite Detention Basin

Node Inflows

Inflow Type	Element	Volume (ft ³)	Time to Peak (min)	Flow (Peak) (ft ³ /s)
Flow (From)	Outlet-1	0.000	0.000	0.00
Flow (In)	Outfall (POC)	0.000	0.000	0.00

U-Haul Bakersfield - PondPack Calculations

Subsection: Time vs. Elevation
 Label: Onsite Detention Basin (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 3.000 min
Time on left represents time for first value in each row.

Time (min)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
0.000	344.50	344.50	344.50	344.51	344.51
15.000	344.52	344.53	344.54	344.55	344.56
30.000	344.57	344.58	344.59	344.60	344.61
45.000	344.62	344.63	344.64	344.65	344.66
60.000	344.67	344.68	344.69	344.70	344.71
75.000	344.72	344.73	344.74	344.75	344.76
90.000	344.77	344.78	344.79	344.80	344.81
105.000	344.82	344.83	344.84	344.85	344.86
120.000	344.87	344.88	344.89	344.90	344.91
135.000	344.92	344.93	344.94	344.95	344.96
150.000	344.97	344.98	344.99	345.00	345.01
165.000	345.02	345.03	345.04	345.05	345.06
180.000	345.06	345.07	345.08	345.09	345.10
195.000	345.11	345.12	345.13	345.14	345.14
210.000	345.15	345.16	345.17	345.18	345.19
225.000	345.20	345.21	345.22	345.23	345.24
240.000	345.25	345.25	345.26	345.27	345.28
255.000	345.29	345.30	345.31	345.32	345.33
270.000	345.34	345.35	345.36	345.37	345.38
285.000	345.39	345.40	345.41	345.42	345.43
300.000	345.44	345.45	345.46	345.46	345.47
315.000	345.48	345.49	345.50	345.51	345.52
330.000	345.53	345.54	345.55	345.56	345.57
345.000	345.57	345.58	345.59	345.60	345.61
360.000	345.62	345.63	345.64	345.65	345.66
375.000	345.67	345.67	345.68	345.69	345.70
390.000	345.71	345.72	345.73	345.74	345.75
405.000	345.76	345.77	345.78	345.79	345.80
420.000	345.81	345.82	345.83	345.84	345.85
435.000	345.86	345.87	345.88	345.89	345.90
450.000	345.90	345.92	345.93	345.94	345.95
465.000	345.96	345.97	345.98	345.99	346.00
480.000	346.01	346.02	346.02	346.03	346.04
495.000	346.05	346.06	346.07	346.08	346.09
510.000	346.10	346.11	346.12	346.13	346.14
525.000	346.15	346.16	346.17	346.18	346.19
540.000	346.20	346.21	346.22	346.23	346.24
555.000	346.25	346.26	346.27	346.28	346.29
570.000	346.30	346.31	346.32	346.33	346.34
585.000	346.35	346.36	346.37	346.38	346.40
600.000	346.41	346.42	346.43	346.44	346.45

U-Haul Bakersfield - PondPack Calculations

Subsection: Time vs. Elevation
 Label: Onsite Detention Basin (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 3.000 min
Time on left represents time for first value in each row.

Time (min)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
615.000	346.46	346.47	346.49	346.50	346.51
630.000	346.52	346.53	346.54	346.55	346.56
645.000	346.57	346.58	346.59	346.60	346.61
660.000	346.62	346.63	346.65	346.66	346.67
675.000	346.68	346.69	346.70	346.71	346.72
690.000	346.74	346.75	346.76	346.77	346.78
705.000	346.80	346.81	346.82	346.83	346.85
720.000	346.86	346.87	346.88	346.90	346.91
735.000	346.93	346.94	346.96	346.97	346.99
750.000	347.01	347.02	347.03	347.05	347.06
765.000	347.08	347.09	347.11	347.12	347.14
780.000	347.16	347.17	347.19	347.20	347.22
795.000	347.24	347.25	347.27	347.29	347.30
810.000	347.32	347.34	347.36	347.37	347.39
825.000	347.41	347.43	347.45	347.47	347.48
840.000	347.50	347.52	347.54	347.56	347.58
855.000	347.59	347.61	347.63	347.65	347.67
870.000	347.69	347.71	347.73	347.75	347.78
885.000	347.80	347.82	347.84	347.87	347.89
900.000	347.91	347.94	347.96	347.99	348.02
915.000	348.04	348.07	348.10	348.12	348.15
930.000	348.18	348.20	348.23	348.26	348.29
945.000	348.32	348.35	348.39	348.43	348.48
960.000	348.54	348.62	348.73	348.87	349.01
975.000	349.13	349.23	349.31	349.36	349.40
990.000	349.43	349.46	349.49	349.51	349.53
1,005.000	349.55	349.57	349.58	349.60	349.62
1,020.000	349.63	349.65	349.66	349.67	349.69
1,035.000	349.70	349.71	349.72	349.74	349.75
1,050.000	349.76	349.77	349.78	349.79	349.80
1,065.000	349.81	349.82	349.83	349.84	349.85
1,080.000	349.86	349.87	349.88	349.88	349.89
1,095.000	349.90	349.91	349.91	349.92	349.93
1,110.000	349.93	349.94	349.95	349.95	349.96
1,125.000	349.96	349.97	349.98	349.98	349.99
1,140.000	349.99	350.00	350.00	350.01	350.01
1,155.000	350.02	350.02	350.03	350.03	350.04
1,170.000	350.04	350.05	350.05	350.06	350.06
1,185.000	350.06	350.07	350.07	350.08	350.08
1,200.000	350.09	350.09	350.09	350.10	350.10
1,215.000	350.11	350.11	350.11	350.12	350.12

U-Haul Bakersfield - PondPack Calculations

Subsection: Time vs. Elevation
 Label: Onsite Detention Basin (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 3.000 min
Time on left represents time for first value in each row.

Time (min)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
1,230.000	350.12	350.13	350.13	350.14	350.14
1,245.000	350.14	350.15	350.15	350.15	350.16
1,260.000	350.16	350.16	350.17	350.17	350.17
1,275.000	350.18	350.18	350.18	350.19	350.19
1,290.000	350.19	350.20	350.20	350.20	350.20
1,305.000	350.21	350.21	350.21	350.22	350.22
1,320.000	350.22	350.23	350.23	350.23	350.23
1,335.000	350.24	350.24	350.24	350.24	350.25
1,350.000	350.25	350.25	350.26	350.26	350.26
1,365.000	350.26	350.27	350.27	350.27	350.27
1,380.000	350.28	350.28	350.28	350.28	350.29
1,395.000	350.29	350.29	350.29	350.30	350.30
1,410.000	350.30	350.30	350.30	350.31	350.31
1,425.000	350.31	350.31	350.32	350.32	350.32
1,440.000	350.32	(N/A)	(N/A)	(N/A)	(N/A)

U-Haul Bakersfield - PondPack Calculations

Subsection: Time vs. Volume
 Label: Onsite Detention Basin

Scenario: Base

Time vs. Volume (ft³)

Output Time increment = 3.000 min
Time on left represents time for first value in each row.

Time (min)	Volume (ft ³)	Volume (ft ³)	Volume (ft ³)	Volume (ft ³)	Volume (ft ³)
0.000	0.000	8.000	28.000	62.000	112.000
15.000	177.000	251.000	330.000	413.000	498.000
30.000	585.000	672.000	759.000	846.000	933.000
45.000	1,021.000	1,108.000	1,195.000	1,283.000	1,372.000
60.000	1,461.000	1,551.000	1,640.000	1,729.000	1,818.000
75.000	1,908.000	1,997.000	2,088.000	2,179.000	2,270.000
90.000	2,362.000	2,453.000	2,544.000	2,635.000	2,727.000
105.000	2,818.000	2,910.000	3,003.000	3,096.000	3,189.000
120.000	3,282.000	3,375.000	3,469.000	3,562.000	3,656.000
135.000	3,750.000	3,846.000	3,941.000	4,036.000	4,131.000
150.000	4,227.000	4,322.000	4,418.000	4,510.000	4,594.000
165.000	4,679.000	4,764.000	4,849.000	4,934.000	5,020.000
180.000	5,107.000	5,195.000	5,283.000	5,370.000	5,459.000
195.000	5,547.000	5,635.000	5,724.000	5,814.000	5,905.000
210.000	5,996.000	6,087.000	6,178.000	6,270.000	6,362.000
225.000	6,456.000	6,550.000	6,644.000	6,738.000	6,833.000
240.000	6,928.000	7,023.000	7,120.000	7,217.000	7,315.000
255.000	7,412.000	7,510.000	7,609.000	7,708.000	7,808.000
270.000	7,909.000	8,009.000	8,111.000	8,212.000	8,314.000
285.000	8,417.000	8,521.000	8,625.000	8,729.000	8,834.000
300.000	8,940.000	9,047.000	9,154.000	9,262.000	9,369.000
315.000	9,477.000	9,586.000	9,690.000	9,787.000	9,884.000
330.000	9,981.000	10,079.000	10,178.000	10,277.000	10,377.000
345.000	10,477.000	10,578.000	10,679.000	10,782.000	10,884.000
360.000	10,987.000	11,090.000	11,195.000	11,300.000	11,405.000
375.000	11,511.000	11,617.000	11,724.000	11,832.000	11,940.000
390.000	12,049.000	12,158.000	12,268.000	12,379.000	12,490.000
405.000	12,603.000	12,716.000	12,830.000	12,944.000	13,058.000
420.000	13,174.000	13,290.000	13,407.000	13,524.000	13,641.000
435.000	13,760.000	13,879.000	13,999.000	14,120.000	14,242.000
450.000	14,364.000	14,488.000	14,612.000	14,737.000	14,863.000
465.000	14,988.000	15,115.000	15,243.000	15,371.000	15,500.000
480.000	15,620.000	15,736.000	15,852.000	15,970.000	16,088.000
495.000	16,206.000	16,325.000	16,446.000	16,567.000	16,688.000
510.000	16,811.000	16,934.000	17,058.000	17,183.000	17,309.000
525.000	17,435.000	17,562.000	17,690.000	17,820.000	17,950.000
540.000	18,081.000	18,213.000	18,346.000	18,480.000	18,614.000
555.000	18,750.000	18,887.000	19,025.000	19,164.000	19,303.000
570.000	19,444.000	19,586.000	19,729.000	19,873.000	20,017.000
585.000	20,163.000	20,311.000	20,459.000	20,609.000	20,759.000
600.000	20,910.000	21,063.000	21,217.000	21,372.000	21,529.000

U-Haul Bakersfield - PondPack Calculations

Subsection: Time vs. Volume
 Label: Onsite Detention Basin

Scenario: Base

Time vs. Volume (ft³)

Output Time increment = 3.000 min

Time on left represents time for first value in each row.

Time (min)	Volume (ft ³)	Volume (ft ³)	Volume (ft ³)	Volume (ft ³)	Volume (ft ³)
615.000	21,687.000	21,845.000	22,005.000	22,166.000	22,317.000
630.000	22,463.000	22,610.000	22,759.000	22,910.000	23,061.000
645.000	23,214.000	23,368.000	23,523.000	23,678.000	23,835.000
660.000	23,993.000	24,152.000	24,313.000	24,476.000	24,640.000
675.000	24,805.000	24,972.000	25,142.000	25,313.000	25,486.000
690.000	25,660.000	25,836.000	26,014.000	26,193.000	26,373.000
705.000	26,555.000	26,739.000	26,925.000	27,114.000	27,304.000
720.000	27,497.000	27,695.000	27,900.000	28,114.000	28,337.000
735.000	28,569.000	28,808.000	29,052.000	29,301.000	29,553.000
750.000	29,799.000	30,031.000	30,265.000	30,501.000	30,740.000
765.000	30,981.000	31,224.000	31,471.000	31,722.000	31,975.000
780.000	32,233.000	32,493.000	32,755.000	33,021.000	33,291.000
795.000	33,564.000	33,841.000	34,121.000	34,404.000	34,692.000
810.000	34,985.000	35,281.000	35,582.000	35,888.000	36,198.000
825.000	36,512.000	36,831.000	37,156.000	37,485.000	37,820.000
840.000	38,154.000	38,465.000	38,782.000	39,105.000	39,434.000
855.000	39,769.000	40,109.000	40,456.000	40,811.000	41,173.000
870.000	41,541.000	41,917.000	42,301.000	42,694.000	43,096.000
885.000	43,508.000	43,929.000	44,361.000	44,805.000	45,260.000
900.000	45,729.000	46,212.000	46,710.000	47,223.000	47,723.000
915.000	48,223.000	48,740.000	49,271.000	49,808.000	50,346.000
930.000	50,880.000	51,412.000	51,952.000	52,512.000	53,106.000
945.000	53,743.000	54,440.000	55,216.000	56,100.000	57,173.000
960.000	58,461.000	60,211.000	62,626.000	65,619.000	68,829.000
975.000	71,646.000	73,973.000	75,690.000	76,949.000	77,933.000
990.000	78,755.000	79,463.000	80,079.000	80,624.000	81,119.000
1,005.000	81,589.000	82,036.000	82,465.000	82,875.000	83,270.000
1,020.000	83,649.000	84,016.000	84,371.000	84,715.000	85,050.000
1,035.000	85,375.000	85,691.000	86,000.000	86,301.000	86,595.000
1,050.000	86,882.000	87,163.000	87,439.000	87,709.000	87,973.000
1,065.000	88,234.000	88,489.000	88,740.000	88,986.000	89,228.000
1,080.000	89,466.000	89,697.000	89,920.000	90,133.000	90,335.000
1,095.000	90,527.000	90,712.000	90,891.000	91,067.000	91,240.000
1,110.000	91,409.000	91,575.000	91,739.000	91,899.000	92,058.000
1,125.000	92,214.000	92,369.000	92,521.000	92,671.000	92,819.000
1,140.000	92,966.000	93,112.000	93,249.000	93,381.000	93,512.000
1,155.000	93,642.000	93,771.000	93,897.000	94,023.000	94,146.000
1,170.000	94,268.000	94,389.000	94,508.000	94,627.000	94,744.000
1,185.000	94,861.000	94,975.000	95,088.000	95,200.000	95,311.000
1,200.000	95,420.000	95,529.000	95,636.000	95,743.000	95,848.000
1,215.000	95,953.000	96,056.000	96,159.000	96,260.000	96,360.000

U-Haul Bakersfield - PondPack Calculations

Subsection: Time vs. Volume
 Label: Onsite Detention Basin

Scenario: Base

Time vs. Volume (ft³)

Output Time increment = 3.000 min

Time on left represents time for first value in each row.

Time (min)	Volume (ft ³)	Volume (ft ³)	Volume (ft ³)	Volume (ft ³)	Volume (ft ³)
1,230.000	96,459.000	96,558.000	96,657.000	96,755.000	96,852.000
1,245.000	96,948.000	97,042.000	97,136.000	97,229.000	97,321.000
1,260.000	97,413.000	97,504.000	97,595.000	97,684.000	97,773.000
1,275.000	97,861.000	97,949.000	98,036.000	98,122.000	98,207.000
1,290.000	98,292.000	98,376.000	98,460.000	98,542.000	98,623.000
1,305.000	98,705.000	98,786.000	98,866.000	98,946.000	99,025.000
1,320.000	99,103.000	99,181.000	99,259.000	99,336.000	99,413.000
1,335.000	99,489.000	99,565.000	99,639.000	99,714.000	99,788.000
1,350.000	99,861.000	99,934.000	100,006.000	100,078.000	100,149.000
1,365.000	100,220.000	100,291.000	100,360.000	100,429.000	100,498.000
1,380.000	100,566.000	100,633.000	100,701.000	100,768.000	100,835.000
1,395.000	100,901.000	100,967.000	101,032.000	101,097.000	101,161.000
1,410.000	101,224.000	101,288.000	101,352.000	101,415.000	101,477.000
1,425.000	101,539.000	101,601.000	101,663.000	101,724.000	101,784.000
1,440.000	101,841.000	(N/A)	(N/A)	(N/A)	(N/A)

U-Haul Bakersfield - PondPack Calculations

Subsection: Elevation-Area Volume Curve

Scenario: Base

Label: Onsite Detention Basin

Elevation (ft)	Planimeter (ft ²)	Area (ft ²)	A1+A2+sqr (A1*A2) (ft ²)	Volume (ft ³)	Volume (Total) (ft ³)
344.50	0.0	8,316	0	0.000	0.000
348.00	0.0	19,554	40,622	47,392.000	47,392.000
350.70	0.0	28,994	72,359	65,123.000	112,515.000

U-Haul Bakersfield - PondPack Calculations

Subsection: Volume Equations

Scenario: Base

Label: Onsite Detention Basin

Pond Volume Equations

*** Incremental volume computed by the Conic Method for Reservoir Volumes.**

$$\text{Volume} = (1/3) * (\text{EL2} - \text{EL1}) * (\text{Area1} + \text{Area2} + \text{sqr}(\text{Area1} * \text{Area2}))$$

where: EL1, EL2 Lower and upper elevations of the increment
 Area1, Area2 Areas computed for EL1, EL2, respectively
 Volume Incremental volume between EL1 and EL2

U-Haul Bakersfield - PondPack Calculations

Subsection: Outlet Input Data

Scenario: Base

Label: Composite Outlet Structure - 1

Requested Pond Water Surface Elevations	
Minimum (Headwater)	344.50 ft
Increment (Headwater)	0.50 ft
Maximum (Headwater)	350.70 ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Rectangular Weir Tailwater Settings	Notch Weir Tailwater	Forward	TW	350.38 (N/A)	350.70 (N/A)

U-Haul Bakersfield - PondPack Calculations

Subsection: Outlet Input Data

Scenario: Base

Label: Composite Outlet Structure - 1

Structure ID: Notch Weir	
Structure Type: Rectangular Weir	
<hr/>	
Number of Openings	1
Elevation	350.38 ft
Weir Length	3.00 ft
Weir Coefficient	3.00 (ft ^{0.5})/s
<hr/>	
Structure ID: TW	
Structure Type: TW Setup, DS Channel	
<hr/>	
Tailwater Type	Free Outfall
<hr/>	
Convergence Tolerances	
<hr/>	
Maximum Iterations	30
Tailwater Tolerance (Minimum)	0.01 ft
Tailwater Tolerance (Maximum)	0.50 ft
Headwater Tolerance (Minimum)	0.01 ft
Headwater Tolerance (Maximum)	0.50 ft
Flow Tolerance (Minimum)	0.001 ft ³ /s
Flow Tolerance (Maximum)	10.000 ft ³ /s
<hr/>	

U-Haul Bakersfield - PondPack Calculations

Subsection: Individual Outlet Curves
Label: Composite Outlet Structure - 1

Scenario: Base

RATING TABLE FOR ONE OUTLET TYPE

Structure ID = ()

Upstream ID =

Downstream ID =

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
Contributing Structures			

U-Haul Bakersfield - PondPack Calculations

Subsection: Composite Rating Curve

Scenario: Base

Label: Composite Outlet Structure - 1

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
344.50	0.00	(N/A)	0.00
345.00	0.00	(N/A)	0.00
345.50	0.00	(N/A)	0.00
346.00	0.00	(N/A)	0.00
346.50	0.00	(N/A)	0.00
347.00	0.00	(N/A)	0.00
347.50	0.00	(N/A)	0.00
348.00	0.00	(N/A)	0.00
348.50	0.00	(N/A)	0.00
349.00	0.00	(N/A)	0.00
349.50	0.00	(N/A)	0.00
350.00	0.00	(N/A)	0.00
350.38	0.00	(N/A)	0.00
350.50	0.37	(N/A)	0.00
350.70	1.63	(N/A)	0.00

Contributing Structures

None Contributing
None Contributing
None Contributing
None Contributing
None Contributing
None Contributing
None Contributing
None Contributing
None Contributing
None Contributing
None Contributing
None Contributing
None Contributing
None Contributing
Notch Weir
Notch Weir
Notch Weir

U-Haul Bakersfield - PondPack Calculations

Subsection: Elevation-Volume-Flow Table (Pond)

Scenario: Base

Label: Onsite Detention Basin

Infiltration	
Infiltration Method (Computed)	Average Infiltration Rate
Infiltration Rate (Average)	0.3000 in/h

Initial Conditions	
Elevation (Water Surface, Initial)	344.50 ft
Volume (Initial)	0.000 ft ³
Flow (Initial Outlet)	0.00 ft ³ /s
Flow (Initial Infiltration)	0.00 ft ³ /s
Flow (Initial, Total)	0.00 ft ³ /s
Time Increment	3.000 min

Elevation (ft)	Outflow (ft ³ /s)	Storage (ft ³)	Area (ft ²)	Infiltration (ft ³ /s)	Flow (Total) (ft ³ /s)	2S/t + O (ft ³ /s)
344.50	0.00	0.000	8,316	0.00	0.00	0.00
345.00	0.00	4,482.899	9,632	0.07	0.07	49.88
345.50	0.00	9,647.787	11,044	0.08	0.08	107.27
346.00	0.00	15,542.956	12,553	0.09	0.09	172.79
346.50	0.00	22,216.694	14,158	0.10	0.10	246.95
347.00	0.00	29,717.291	15,860	0.11	0.11	330.30
347.50	0.00	38,093.037	17,659	0.12	0.12	423.38
348.00	0.00	47,392.222	19,554	0.14	0.14	526.72
348.50	0.00	57,568.655	21,162	0.15	0.15	639.80
349.00	0.00	68,565.141	22,834	0.16	0.16	761.99
349.50	0.00	80,413.457	24,570	0.17	0.17	893.65
350.00	0.00	93,145.380	26,369	0.18	0.18	1,035.13
350.38	0.00	103,432.151	27,778	0.19	0.19	1,149.44
350.50	0.37	106,792.688	28,231	0.20	0.57	1,187.16
350.70	1.63	112,515.037	28,994	0.20	1.83	1,252.00

U-Haul Bakersfield - PondPack Calculations

Subsection: Pond Infiltration Calculations

Scenario: Base

Label: Onsite Detention Basin (IN)

Average Infiltration Rating Table

Elevation (Water Surface) (ft)	Area (Total) (ft ²)	Flow (Infiltration) (ft ³ /s)
344.50	8,316.0	0.00
345.00	9,631.7	0.07
345.50	11,044.0	0.08
346.00	12,552.8	0.09
346.50	14,158.2	0.10
347.00	15,860.2	0.11
347.50	17,658.8	0.12
348.00	19,554.0	0.14
348.50	21,162.3	0.15
349.00	22,834.2	0.16
349.50	24,569.6	0.17
350.00	26,368.6	0.18
350.38	27,778.4	0.19
350.50	28,231.2	0.20
350.70	28,994.0	0.20

U-Haul Bakersfield - PondPack Calculations

Subsection: Level Pool Pond Routing Summary

Scenario: Base

Label: Onsite Detention Basin (IN)

Infiltration	
Infiltration Method (Computed)	Average Infiltration Rate
Infiltration Rate (Average)	0.3000 in/h

Initial Conditions	
Elevation (Water Surface, Initial)	344.50 ft
Volume (Initial)	0.000 ft ³
Flow (Initial Outlet)	0.00 ft ³ /s
Flow (Initial Infiltration)	0.00 ft ³ /s
Flow (Initial, Total)	0.00 ft ³ /s
Time Increment	3.000 min

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	17.90 ft ³ /s	Time to Peak (Flow, In)	969.000 min
Infiltration (Peak)	0.19 ft ³ /s	Time to Peak (Infiltration)	1,440.000 min
Flow (Peak Outlet)	0.00 ft ³ /s	Time to Peak (Flow, Outlet)	0.000 min

Elevation (Water Surface, Peak)	350.32 ft
Volume (Peak)	101,841.236 ft ³

Mass Balance (ft ³)	
Volume (Initial)	0.000 ft ³
Volume (Total Inflow)	112,102.000 ft ³
Volume (Total Infiltration)	10,261.000 ft ³
Volume (Total Outlet Outflow)	0.000 ft ³
Volume (Retained)	101,806.000 ft ³
Volume (Unrouted)	-35.000 ft ³
Error (Mass Balance)	0.0 %

U-Haul Bakersfield - PondPack Calculations

Subsection: Pond Infiltration Hydrograph
 Label: Onsite Detention Basin (INF)

Scenario: Base

Peak Discharge	0.19 ft ³ /s
Time to Peak	1,440.000 min
Hydrograph Volume	10,225.911 ft ³

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 3.000 min

Time on left represents time for first value in each row.

Time (min)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
9.000	0.00	0.00	0.00	0.00	0.01
24.000	0.01	0.01	0.01	0.01	0.01
39.000	0.01	0.01	0.02	0.02	0.02
54.000	0.02	0.02	0.02	0.02	0.03
69.000	0.03	0.03	0.03	0.03	0.03
84.000	0.03	0.04	0.04	0.04	0.04
99.000	0.04	0.04	0.04	0.04	0.05
114.000	0.05	0.05	0.05	0.05	0.05
129.000	0.05	0.06	0.06	0.06	0.06
144.000	0.06	0.06	0.06	0.06	0.07
159.000	0.07	0.07	0.07	0.07	0.07
174.000	0.07	0.07	0.07	0.07	0.07
189.000	0.07	0.07	0.07	0.07	0.07
204.000	0.07	0.07	0.07	0.07	0.07
219.000	0.07	0.07	0.07	0.07	0.07
234.000	0.07	0.07	0.07	0.07	0.07
249.000	0.07	0.07	0.07	0.07	0.07
264.000	0.07	0.07	0.07	0.07	0.07
279.000	0.07	0.07	0.07	0.07	0.07
294.000	0.08	0.08	0.08	0.08	0.08
309.000	0.08	0.08	0.08	0.08	0.08
324.000	0.08	0.08	0.08	0.08	0.08
339.000	0.08	0.08	0.08	0.08	0.08
354.000	0.08	0.08	0.08	0.08	0.08
369.000	0.08	0.08	0.08	0.08	0.08
384.000	0.08	0.08	0.08	0.08	0.08
399.000	0.08	0.08	0.08	0.08	0.08
414.000	0.08	0.08	0.08	0.08	0.08
429.000	0.08	0.08	0.08	0.08	0.08
444.000	0.08	0.08	0.09	0.09	0.09
459.000	0.09	0.09	0.09	0.09	0.09
474.000	0.09	0.09	0.09	0.09	0.09
489.000	0.09	0.09	0.09	0.09	0.09
504.000	0.09	0.09	0.09	0.09	0.09
519.000	0.09	0.09	0.09	0.09	0.09
534.000	0.09	0.09	0.09	0.09	0.09
549.000	0.09	0.09	0.09	0.09	0.09

U-Haul Bakersfield - PondPack Calculations

Subsection: Pond Infiltration Hydrograph
 Label: Onsite Detention Basin (INF)

Scenario: Base

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 3.000 min

Time on left represents time for first value in each row.

Time (min)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
564.000	0.09	0.09	0.09	0.09	0.09
579.000	0.09	0.09	0.10	0.10	0.10
594.000	0.10	0.10	0.10	0.10	0.10
609.000	0.10	0.10	0.10	0.10	0.10
624.000	0.10	0.10	0.10	0.10	0.10
639.000	0.10	0.10	0.10	0.10	0.10
654.000	0.10	0.10	0.10	0.10	0.10
669.000	0.10	0.10	0.10	0.10	0.10
684.000	0.10	0.10	0.10	0.10	0.10
699.000	0.10	0.11	0.11	0.11	0.11
714.000	0.11	0.11	0.11	0.11	0.11
729.000	0.11	0.11	0.11	0.11	0.11
744.000	0.11	0.11	0.11	0.11	0.11
759.000	0.11	0.11	0.11	0.11	0.11
774.000	0.11	0.11	0.11	0.11	0.11
789.000	0.12	0.12	0.12	0.12	0.12
804.000	0.12	0.12	0.12	0.12	0.12
819.000	0.12	0.12	0.12	0.12	0.12
834.000	0.12	0.12	0.12	0.12	0.12
849.000	0.12	0.12	0.13	0.13	0.13
864.000	0.13	0.13	0.13	0.13	0.13
879.000	0.13	0.13	0.13	0.13	0.13
894.000	0.13	0.13	0.13	0.13	0.13
909.000	0.14	0.14	0.14	0.14	0.14
924.000	0.14	0.14	0.14	0.14	0.14
939.000	0.14	0.14	0.14	0.14	0.14
954.000	0.15	0.15	0.15	0.15	0.15
969.000	0.16	0.16	0.16	0.16	0.17
984.000	0.17	0.17	0.17	0.17	0.17
999.000	0.17	0.17	0.17	0.17	0.17
1,014.000	0.17	0.17	0.17	0.17	0.17
1,029.000	0.17	0.18	0.18	0.18	0.18
1,044.000	0.18	0.18	0.18	0.18	0.18
1,059.000	0.18	0.18	0.18	0.18	0.18
1,074.000	0.18	0.18	0.18	0.18	0.18
1,089.000	0.18	0.18	0.18	0.18	0.18
1,104.000	0.18	0.18	0.18	0.18	0.18
1,119.000	0.18	0.18	0.18	0.18	0.18
1,134.000	0.18	0.18	0.18	0.18	0.18
1,149.000	0.18	0.18	0.18	0.18	0.18
1,164.000	0.18	0.18	0.18	0.18	0.18
1,179.000	0.18	0.18	0.18	0.18	0.19

U-Haul Bakersfield - PondPack Calculations

Subsection: Pond Infiltration Hydrograph

Scenario: Base

Label: Onsite Detention Basin (INF)

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 3.000 min

Time on left represents time for first value in each row.

Time (min)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
1,194.000	0.19	0.19	0.19	0.19	0.19
1,209.000	0.19	0.19	0.19	0.19	0.19
1,224.000	0.19	0.19	0.19	0.19	0.19
1,239.000	0.19	0.19	0.19	0.19	0.19
1,254.000	0.19	0.19	0.19	0.19	0.19
1,269.000	0.19	0.19	0.19	0.19	0.19
1,284.000	0.19	0.19	0.19	0.19	0.19
1,299.000	0.19	0.19	0.19	0.19	0.19
1,314.000	0.19	0.19	0.19	0.19	0.19
1,329.000	0.19	0.19	0.19	0.19	0.19
1,344.000	0.19	0.19	0.19	0.19	0.19
1,359.000	0.19	0.19	0.19	0.19	0.19
1,374.000	0.19	0.19	0.19	0.19	0.19
1,389.000	0.19	0.19	0.19	0.19	0.19
1,404.000	0.19	0.19	0.19	0.19	0.19
1,419.000	0.19	0.19	0.19	0.19	0.19
1,434.000	0.19	0.19	0.19	(N/A)	(N/A)

U-Haul Bakersfield - PondPack Calculations

Subsection: Pond Routed Hydrograph (total out)

Scenario: Base

Label: Onsite Detention Basin (OUT)

Peak Discharge	0.00 ft ³ /s
Time to Peak	480.000 min
Hydrograph Volume	0.000 ft ³

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 3.000 min

Time on left represents time for first value in each row.

Time (min)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
0.000	0.00	0.00	(N/A)	(N/A)	(N/A)

U-Haul Bakersfield - PondPack Calculations

Subsection: Pond Inflow Summary

Scenario: Base

Label: Onsite Detention Basin (IN)

Summary for Hydrograph Addition at 'Onsite Detention Basin'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	Unit Hydrograph (Onsite Runoff)

Node Inflows

Inflow Type	Element	Volume (ft ³)	Time to Peak (min)	Flow (Peak) (ft ³ /s)
Flow (From)	Unit Hydrograph (Onsite Runoff)	112,119.000	970.000	18.73
Flow (In)	Onsite Detention Basin	112,101.840	969.000	17.90

U-Haul Bakersfield - PondPack Calculations

Subsection: Diverted Hydrograph

Scenario: Base

Label: Outlet-1

Peak Discharge	0.00 ft ³ /s
Time to Peak	480.000 min
Hydrograph Volume	0.000 ft ³

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 3.000 min

Time on left represents time for first value in each row.

Time (min)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
0.000	0.00	0.00	(N/A)	(N/A)	(N/A)

U-Haul Bakersfield - PondPack Calculations

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